

# Supplementary Information for

Identification of psychoactive metabolites from *Cannabis sativa*,  
its smoke and other phytocannabinoids using machine learning  
and multivariate methods

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| Column1 | Positive/Negative/Cannabis Metabolite                       | log S  | log D  | Papp   |
|---------|---|--------|--------|--------|
|         | <b>468 Metabolites and positive &amp; negative controls</b> |        |        |        |
| P1      | Acetorphine   | -4.388 | 1.338  | -4.913 |
| P2      | Allylprodine  | -3.957 | 2.778  | -4.508 |
| P3      | Anileridine   | -4.566 | 2.702  | -4.944 |
| P4      | Benzethidine  | -4.719 | 2.935  | -4.688 |
| P5      | Betameprodine   | -3.557 | 2.845  | -4.507 |
| P6      | Bezitramide   | -5.754 | 3.255  | -4.807 |
| P7      | Butyrfentanyl   | -5.413 | 3.396  | -4.653 |
| P8      | Carfentanil   | -4.865 | 2.873  | -4.68  |
| P9      | Clonitazene   | -5.47  | 2.732  | -4.59  |
| P10     | Cocaine   | -2.929 | 1.141  | -4.498 |
| P11     | Codeine   | -2.299 | 0.787  | -4.446 |
| P12     | Codoxime  | -3.473 | 0.46   | -5.13  |
| P13     | Desomorphine  | -3.503 | 0.969  | -4.55  |
| P14     | Dextromoramide  | -4.68  | 2.965  | -4.583 |
| P15     | Diampromide   | -4.746 | 2.81   | -4.558 |
| P16     | Diethylthiambutene  | -5.485 | 2.828  | -4.563 |
| P17     | Difenoxin   | -5.804 | 1.127  | -5.187 |
| P18     | Ethanol   | 1.285  | -0.026 | -4.267 |
| P19     | Ethylmethylthiambutene                                      | -4.482 | 2.823  | -4.55  |
| P20     | Etonitazene   | -5.476 | 1.52   | -4.64  |
| P21     | Etorphine   | -3.842 | 1.531  | -5.078 |
| P22     | Fentanyl  | -5.127 | 3.196  | -4.623 |
| P23     | Heroin  | -3.257 | 0.63   | -4.487 |
| P24     | Hydrocodone   | -3.133 | 1.261  | -4.482 |
| P25     | Hydromorphone   | -3.017 | 0.683  | -4.707 |
| P26     | Isomethadone  | -4.318 | 2.952  | -4.543 |
| P27     | Ketobemidone  | -2.956 | 1.009  | -4.488 |
| P28     | Levomoramide  | -4.68  | 2.965  | -4.583 |
| P29     | Meperidine  | -2.76  | 2.019  | -4.465 |
| P30     | Morphine  | -2.769 | 0.015  | -5.212 |
| P31     | Morphine-n-oxide (morphine oxide)                           | -2.818 | -0.082 | -5.182 |
| P32     | Oxycodone   | -2.258 | 0.472  | -4.768 |
| P33     | Oxymorphone (dihydrooxymorphinone)                          | -2.55  | -0.185 | -5.176 |
| P34     | Propiram  | -3.125 | 2.477  | -4.469 |
| P35     | Acetylmethadol  | -4.841 | 3.247  | -4.584 |
| P36     | AH-7921   | -4.566 | 2.611  | -4.569 |
| P37     | Alphameprodine  | -3.557 | 2.845  | -4.507 |
| P38     | Alphaprodine  | -3.375 | 2.556  | -4.498 |
| P39     | Dextropropoxyphene  | -4.726 | 3.072  | -4.568 |

|     |                                    |        |        |        |
|-----|------------------------------------|--------|--------|--------|
| P40 | Phenadoxone                        | -4.756 | 3.035  | -4.567 |
| P41 | Phenampromide                      | -3.769 | 2.635  | -4.492 |
| P42 | Phenazocine                        | -5.122 | 1.566  | -4.804 |
| P43 | Phenomorphane                      | -5.29  | 1.969  | -4.949 |
| P44 | Phenoperidine                      | -4.799 | 2.659  | -4.884 |
| P45 | Piminodine                         | -5.048 | 2.877  | -4.939 |
| P46 | Piritramide                        | -4.664 | 3.209  | -5.076 |
| P47 | Proheptazine                       | -3.536 | 2.837  | -4.534 |
| P48 | Properidine                        | -3.314 | 2.526  | -4.455 |
| P49 | Racemethorphan                     | -3.867 | 1.77   | -4.591 |
| P50 | Etoxidine                          | -2.321 | 1.554  | -4.718 |
| P51 | Remifentanyl                       | -3.316 | 1.303  | -4.499 |
| P52 | Sufentanyl                         | -4.895 | 2.917  | -4.675 |
| P53 | Thebacon                           | -3.238 | 1.301  | -4.466 |
| P54 | Thebaine                           | -3.101 | 1.52   | -4.486 |
| P55 | Thiofentanyl                       | -4.932 | 2.926  | -4.602 |
| P56 | Tilidine                           | -3.466 | 2.472  | -4.482 |
| P57 | Trimeperidine                      | -3.563 | 2.876  | -4.493 |
| P58 | U-47700                            | -4.513 | 2.606  | -4.582 |
| P59 | MT-45                              | -5.628 | 3.642  | -4.76  |
| P60 | Lysergide                          | -3.387 | 2.241  | -4.561 |
| P61 | Midomafetamine                     | -2.011 | 1.763  | -4.449 |
| P62 | Methaqualone                       | -3.325 | 2.45   | -4.181 |
| P63 | Mescaline                          | -1.779 | 0.453  | -4.525 |
| E1  | N -arachidonoyl ethanolamine       | -4.962 | 3.362  | -4.946 |
| E2  | 2-arachidonoyl glycerol.           | -5.393 | 3.307  | -5.037 |
| E3  | Dihomo- g -linolenoyl ethanolamide | -4.844 | 3.557  | -4.932 |
| E4  | Docosatetraenoyl ethanolamide      | -5.37  | 3.718  | -4.943 |
| E5  | Arachidonyl glyceryl ether         | -5.379 | 3.73   | -5.039 |
| E6  | N -arachidonoyl dopamine           | -6.378 | 2.103  | -5.129 |
| E7  | N -oleoyl dopamine                 | -5.815 | 2.201  | -5.131 |
| E8  | Oleamide                           | -4.673 | 3.464  | -4.604 |
| E9  | O -arachidonoyl ethanolamine       | -4.873 | 3.515  | -4.78  |
| P64 | Nicotine                           | -0.989 | 1.664  | -4.461 |
| N1  | Acetate                            | 1.141  | -0.645 | -4.344 |
| N2  | Biotin                             | -2.606 | -0.935 | -5.205 |
| N3  | Choline                            | 0.718  | 0.023  | -4.761 |
| N4  | Glucose                            | 0.57   | 0.433  | -5.783 |
| N5  | Glutamate                          | -0.789 | -1.452 | -5.114 |
| N6  | Histidine                          | -0.91  | -1.506 | -5.411 |
| N7  | Isoleucine                         | -0.834 | -1.209 | -4.967 |

|     |   |        |        |        |
|-----|---|--------|--------|--------|
| N8  | Lactate   | 0.918  | -0.981 | -4.445 |
| N9  | Leucine   | -0.865 | -1.225 | -4.963 |
| N10 | Lysine  | -0.401 | -1.651 | -5.432 |
| N11 | Methionine  | -0.692 | -1.317 | -5.029 |
| N12 | Phenylalanine                                     | -1.318 | -1.385 | -4.854 |
| N13 | Pyruvate  | 0.919  | -0.828 | -4.385 |
| N14 | Riboflavin  | -3.517 | 0.864  | -6.003 |
| N15 | Thiamine  | -2.656 | 0.546  | -5.171 |
| N16 | Tryptophan  | -2.21  | -1.255 | -5.187 |
| N17 | Tyrosine  | -1.824 | -1.848 | -5.305 |
| N18 | Valine  | -0.248 | -1.239 | -5.04  |
| T   | THC   | -3.5   | 2.007  | -4.746 |
| C1  | 1,1-Dimethylhydrazine                             | 1.132  | -0.1   | -4.254 |
| C2  | 1,2,3,4-Tetramethylbenzene                        | -4.146 | 2.469  | -4.275 |
| C3  | 1,2-Diethylbenzene                                | -3.466 | 2.323  | -4.257 |
| C4  | 1,3,5-Triazine-2,4,6-triamine                     | -1.486 | -0.16  | -5.474 |
| C5  | 1,3-Dichlorobenzene                               | -3.113 | 2.516  | -4.188 |
| C6  | 1,4-Diethylbenzene                                | -3.728 | 2.365  | -4.255 |
| C7  | 1-Butanol   | -0.029 | 0.415  | -4.268 |
| C8  | 1-Butoxy-2-Propanol                               | -0.366 | 1.378  | -4.398 |
| C9  | Hexan-1-ol  | -1.21  | 1.546  | -4.25  |
| C10 | Undecan-1-ol                                      | -3.641 | 2.982  | -4.357 |
| C11 | 2,2,5-Trimethylhexane                             | -5.04  | 2.827  | -4.332 |
| C12 | 2,3,4-Trimethylpentane                            | -4.675 | 2.623  | -4.304 |
| C13 | 2,4,6-Trimethylphenol                             | -2.031 | 0.697  | -4.496 |
| C14 | 2,4-Ditert-butylphenol                            | -4.025 | 1.563  | -4.604 |
| C15 | 2,6-Diethylpyrazine                               | -1.007 | 1.635  | -4.24  |
| C16 | 2,5-Dimethylpyrazine                              | -0.025 | 1.152  | -4.195 |
| C17 | Butan-2-one                                       | 0.346  | 1.24   | -4.227 |
| C18 | 2-Butoxyethanol                                   | 0.679  | 0.34   | -4.338 |
| C19 | 1-(2-Chlorophenyl)Ethenone                        | -2.292 | 1.874  | -4.181 |
| C20 | 1,3-Dimethyl-2-Vinyl Benzene                      | -3.755 | 2.423  | -4.225 |
| C21 | 2-Ethoxyethanol                                   | 0.883  | -0.245 | -4.367 |
| C22 | 2-Ethyl-1-hexanol                                 | -2.184 | 1.997  | -4.299 |
| C23 | 2-Ethyl Toluene                                   | -3.23  | 2.111  | -4.188 |
| C24 | 2-Formyl-Delta-9-Tetrahydrocannabinol             | -5.499 | 1.941  | -4.896 |
| C25 | 2-Geranyl-5-Hydroxy-3-n-Pentanyl-1,4-Benzoquinone | -5.543 | 1.793  | -4.775 |
| C26 | 2-Heptanone                                       | -1.489 | 1.897  | -4.237 |
| C27 | 2-Hydroxy-Acetophenone                            | -1.379 | 0.155  | -4.465 |
| C28 | 2-Isopropyl-3-methyl-pyrazine                     | -1.279 | 1.83   | -4.286 |
| C29 | 2-Methylaziridine                                 | 0.933  | 0.041  | -4.296 |

|     |   |        |        |        |
|-----|---|--------|--------|--------|
| C30 | 2-Methylnaphthalene   | -3.796 | 2.712  | -4.14  |
| C31 | 2-Methyl-1H-imidazole   | 0.673  | 0.085  | -4.205 |
| C32 | 2-Methyl-Propanamine  | 0.647  | 0.366  | -4.327 |
| C33 | 2-Methylpentane   | -3.725 | 2.284  | -4.297 |
| C34 | 2-Nitropropane  | -0.401 | -0.053 | -4.27  |
| C35 | 2-Phenoxy Ethanol   | -0.755 | 0.155  | -4.348 |
| C36 | 3-(1-Methyl Ethyl)-Phenol Carbamate   | -3.14  | 2.131  | -4.387 |
| C37 | 3-(3-Hydroxy Phenyl)-2-Propenoic acid, methyl ester   | -2.208 | -0.231 | -4.738 |
| C38 | 3,4,5,6-Tetrahydro-7-hydroxy-a,a-2-trimethyl-9-n-propyl-2,6-methano-2H-1-Benzoxcin-5-methanol | -4.282 | 1.43   | -4.839 |
| C39 | 3,4,5-Trimethylphenol   | -2.051 | 0.628  | -4.485 |
| C40 | 3,4,5-Trimethylhex-1-ene  | -4.321 | 2.626  | -4.314 |
| C41 | 3-Ethyl Toulene   | -3.214 | 2.103  | -4.183 |
| C42 | 3-Ethyl-O-xylene  | -3.938 | 2.424  | -4.238 |
| C43 | 3-Hydroxy-Delta-4,5-Cannabichromene   | -5.119 | 1.741  | -4.907 |
| C44 | 3-Isopropyl Benzaldehyde  | -2.303 | 2.084  | -4.235 |
| C45 | 3-Methyl Acetophenone   | -2.051 | 1.716  | -4.167 |
| C46 | 3-Methyl Heptane  | -5.097 | 2.829  | -4.323 |
| C47 | 3-methylcyclopent-2-en-1-one  | -0.1   | 1.426  | -4.122 |
| C48 | 3-Methyl Pentane  | -3.659 | 2.296  | -4.296 |
| C49 | 3-Methyl-5-(1-Methyl Ethyl)-Phenol Methyl Carbamate   | -3.286 | 2.418  | -4.393 |
| C50 | 3-Pentanol  | -0.249 | 1.486  | -4.298 |
| C51 | 4,5-Dihydroxy-2,3,6-Trimethoxy-9,10-Dihydrophenanthrene                                       | -3.65  | 0.991  | -4.882 |
| C52 | 4,7-Dimethoxyphenanthrene-1,2,5-triol   | -4.039 | 1.026  | -5.055 |
| C53 | 4-Acetoxy Cannabichromene   | -5.608 | 1.93   | -4.858 |
| C54 | 4-Acetoxy-2-geranyl-5-hydroxy-3-n-pentylphenol  | -5.948 | 1.762  | -5.058 |
| C55 | 4-Carene  | -4.36  | 2.483  | -4.309 |
| C56 | 4-Ethoxy-3-anisaldehyde   | -2.154 | 0.888  | -4.299 |
| C57 | 4-Hydroxy-2,3,6,7-tetramethoxy-9,10dihydrophenanthrene  | -3.885 | 1.039  | -4.812 |
| C58 | 4-Methoxy-Couramin  | -2.321 | 0.331  | -4.255 |
| C59 | 4-Methyl Decane   | -6.047 | 2.965  | -4.429 |
| C60 | 4-Methylpyrimidine  | 0.574  | 0.422  | -4.138 |
| C61 | 4-Methyl Guaiacol   | -1.068 | 0.415  | -4.566 |
| C62 | 4-Methyl Phenyl ethyl amine   | -1.504 | 1.469  | -4.318 |
| C63 | 4-Pyridinamine  | -0.994 | 1      | -4.203 |
| C64 | 4-Terpinyl Delta-9-tetrahydrocannabinolate  | -6.078 | 2.452  | -5.043 |
| C65 | 4-Terpenyl Cannabinolate  | -5.889 | 2.312  | -4.984 |

|      |   |        |        |        |
|------|---|--------|--------|--------|
| C66  | 5-Acetoxy-6-Geranyl-3n -Pentyl-1,4-Benzoquinone         | -5.968 | 3.351  | -4.62  |
| C67  | 5-Acetyl-4-Hydroxycannabigerol                          | -5.977 | 1.731  | -5.059 |
| C68  | 5-Ethenyl-2-Methylpyridine                              | -1.487 | 1.708  | -4.109 |
| C69  | 5-Methoxy Cannabigerolic acid                           | -5.948 | 1.689  | -5.059 |
| C70  | 5-Methyl-4-Pentyl-Biphenyl-2,2,6-Triol                  | -4.764 | 1.305  | -4.974 |
| C71  | 5-Methylindane  | -3.406 | 2.146  | -4.206 |
| C72  | 5-Octanolide  | -1.68  | 2.048  | -4.22  |
| C73  | 6,7-cis -Epoxy-cannabigerol                             | -5.126 | 1.342  | -5.123 |
| C74  | 6,7-cis-Epoxy-cannabigerolic acid                       | -5.126 | 1.342  | -5.123 |
| C75  | 6a-R-Cannabichromanone B                                | -4.686 | 1.008  | -4.937 |
| C76  | 6a-R-Cannabichromanone C                                | -4.685 | 0.92   | -4.667 |
| C77  | 6-Metiltetrapterol A                                    | -5.615 | 1.476  | -5.288 |
| C78  | 6-Prenylapigenin  | -5.128 | 1.169  | -5.039 |
| C79  | 7,8-Dehydro-10-O-ethylcannabitrinol                     | -4.801 | 1.904  | -5.047 |
| C80  | 7,8-Dihydrocannabinol                                   | -4.416 | 1.996  | -4.721 |
| C81  | 7-Hydroxy Cannabichromane                               | -4.935 | 1.857  | -4.916 |
| C82  | 7-Hydroxy cannabinol                                    | -5.313 | 1.705  | -4.963 |
| C83  | 7-Methoxy Cannabispiranone                              | -3.643 | 1.528  | -4.427 |
| C84  | 7-R-Cannabicumarononic acid                             | -5.389 | 1.186  | -4.938 |
| C85  | 8,9-Dihydroxy-delta-6a-tetrahydrocannabinol             | -4.777 | 1.405  | -4.946 |
| C86  | 8-Hydroxy cannabinolic acid                             | -5.562 | 1.169  | -5.1   |
| C87  | 8-Hydroxyl cannabinol                                   | -5.326 | 1.716  | -4.955 |
| C88  | 8a-Hydroxy-Delta-9-tetrahydrocannbinol                  | -4.59  | 1.836  | -4.94  |
| C89  | 8-oxo-Delta-9-tetrahydrocannbinol                       | -4.769 | 1.783  | -4.718 |
| C90  | 9,10-Anhydrocannabitrinol                               | -5.076 | 2.087  | -4.739 |
| C91  | 9,10-Dihydro-2,3,5,6-Tetramethoxyphenanthrene-1,4-dione | -3.218 | 0.999  | -4.447 |
| C92  | 9 $\beta$ ,10 $\beta$ -Epoxyhexahydrocannabinol         | -4.982 | 2.063  | -4.766 |
| C93  | 10 $\alpha$ -Hydroxy-Delta- 9,11 -Hexahydrocannabinol   | -4.629 | 1.802  | -4.938 |
| C94  | 10-Ethoxy-9-hydroxy-delta-6a-Tetrahydrocannabinol       | -5.241 | 2.04   | -5.052 |
| C95  | 10-Hydroxy-9-oxo-Delta-8-Tetrahydrocannabinol           | -4.814 | 1.31   | -4.882 |
| C96  | 10-O-Ethyl bis-nor Cannabitrinol                        | -4.795 | 1.856  | -5.012 |
| C97  | 10-Oxo-delta-6a-Tetrahydrocannabinol (OTHC)             | -4.8   | 1.788  | -4.722 |
| C98  | 11-Acetoxy-Delta-8-Tetrahydrocannbinoic acid            | -5.502 | 1.502  | -5.122 |
| C99  | 11-Acetoxy-Delta- 9 -Tetrahydrocannabinolic acid A      | -5.502 | 1.484  | -5.12  |
| C100 | Abnormal Cannabigerol                                   | -5.432 | 2.006  | -4.918 |
| C101 | Acetaldehyde  | 1.207  | -0.078 | -4.213 |
| C102 | Acetamide   | 1.399  | -0.211 | -4.449 |
| C103 | Acetic acid   | 1.083  | -1.245 | -4.353 |

|      |   |        |       |        |
|------|---|--------|-------|--------|
| C104 | Acetone   | 1.036  | 0.281 | -4.233 |
| C105 | Acetyl abnormal hydrocannabigeroquinol            | -5.948 | 1.762 | -5.058 |
| C106 | Acetyl cannabigeroquinol                          | -5.968 | 3.351 | -4.62  |
| C107 | Acrolein  | 0.675  | 0.075 | -4.166 |
| C108 | Acetophenone                                      | -1.414 | 1.646 | -4.144 |
| C109 | Alloaromadendrene                                 | -5.662 | 2.88  | -4.458 |
| C110 | Alpha-Bisabolol                                   | -4.398 | 2.929 | -4.422 |
| C111 | $\alpha$ -Bulnescene                              | -5.88  | 2.927 | -4.459 |
| C112 | $\alpha$ -Cadinene                                | -5.85  | 2.988 | -4.453 |
| C113 | $\alpha$ -Cadinyl Delta-9-tetrahydrocannabinolate | -5.96  | 2.776 | -5.067 |
| C114 | Alpha-Cannabispiranol                             | -3.564 | 0.784 | -4.754 |
| C115 | Alpha-Cedrene                                     | -5.729 | 2.952 | -4.439 |
| C116 | Alpha-Cis-Bergamotene                             | -5.864 | 2.99  | -4.461 |
| C117 | Alpha- Copaene                                    | -5.667 | 2.919 | -4.435 |
| C118 | Alpha-Cubebene                                    | -5.705 | 2.928 | -4.435 |
| C119 | Alpha-Eudesmol                                    | -4.177 | 2.908 | -4.447 |
| C120 | Alpha-Guaiene                                     | -5.88  | 2.932 | -4.453 |
| C121 | Alpha-Gurjunene                                   | -5.822 | 2.914 | -4.462 |
| C122 | Alpha-Humulene                                    | -6.518 | 3.059 | -4.412 |
| C123 | Alpha-Ionol                                       | -3.279 | 2.745 | -4.357 |
| C124 | Alpa-Linilenic acid                               | -4.829 | 1.55  | -4.729 |
| C125 | Alpha-Longipinene                                 | -5.853 | 2.96  | -4.436 |
| C126 | Alpha-Methyl-Cinnamaldehyde                       | -2.273 | 1.92  | -4.149 |
| C127 | Alpha-Phellandrene                                | -4.116 | 2.714 | -4.308 |
| C128 | Alpha-Pinene                                      | -4.577 | 2.745 | -4.326 |
| C129 | Alpha-Selinene                                    | -5.89  | 2.954 | -4.456 |
| C130 | Alpha-Terpinyl Delta-9-tetrahydrocannabinolate    | -6.058 | 2.437 | -5.044 |
| C131 | Alpha-Terpinene                                   | -4.289 | 2.802 | -4.324 |
| C132 | Alpha-Terpineol                                   | -1.961 | 2.214 | -4.344 |
| C133 | Alpha-Thujene                                     | -4.516 | 2.733 | -4.324 |
| C134 | Alpha-Trans-Bergamotene                           | -5.864 | 2.99  | -4.461 |
| C135 | Alpha-Ylangene                                    | -5.667 | 2.919 | -4.435 |
| C136 | Amorfrutin-3                                      | -4.591 | 0.596 | -5.085 |
| C137 | Amorfrutin-4                                      | -6.664 | 1.618 | -5.146 |
| C138 | Amorfrutin-A                                      | -5.311 | 1.093 | -4.928 |
| C139 | Amorfrutin-B                                      | -6.529 | 1.746 | -5.148 |
| C140 | Anethole  | -3.074 | 1.455 | -4.158 |
| C141 | Anhydrocannabimovone                              | -4.686 | 1.781 | -4.756 |
| C142 | Anhydrocannabisativine                            | -3.497 | 2.697 | -4.727 |
| C143 | Anthopogochromenic acid                           | -4.897 | 1.17  | -4.848 |
| C144 | Anthopogocycloic acid                             | -4.559 | 0.78  | -4.832 |

|      |  |        |        |        |
|------|--|--------|--------|--------|
| C145 | Apigenin   | -3.595 | 0.487  | -4.985 |
| C146 | Arachidin-3  | -5.14  | 1.373  | -5.016 |
| C147 | Araphyn-1  | -5.405 | 1.522  | -4.876 |
| C148 | Araphyn-3  | -3.834 | 0.834  | -5.568 |
| C149 | Araphyn-4  | -4.019 | 0.893  | -5.233 |
| C150 | Aristolene   | -5.878 | 2.919  | -4.446 |
| C151 | Aromadendrene  | -5.662 | 2.88   | -4.458 |
| C152 | Benzaldehyde   | -1.186 | 1.396  | -4.103 |
| C153 | Benzonitrile   | -1.422 | 1.393  | -4.092 |
| C154 | Benzophenone   | -3.054 | 2.475  | -4.095 |
| C155 | Benzphetamine  | -4.033 | 2.911  | -4.315 |
| C156 | Benzyl acetate   | -1.714 | 1.537  | -4.197 |
| C157 | Benzyl Alcohol   | -0.522 | 1.219  | -4.144 |
| C158 | Benzyl formate   | -1.461 | 1.388  | -4.197 |
| C159 | Benzyl Nitrile   | -2.474 | 1.506  | -4.085 |
| C160 | Beta-Cannabispiranol                                       | -3.564 | 0.784  | -4.574 |
| C161 | Beta-Caryophyllene oxide                                   | -4.273 | 2.866  | -4.413 |
| C162 | Beta-Caryophyllene   | -5.871 | 2.933  | -4.45  |
| C163 | Beta-Cedrene   | -5.738 | 2.932  | -4.438 |
| C164 | Beta-Elemene   | -5.548 | 2.937  | -4.445 |
| C165 | Beta-Eudesmol  | -4.196 | 2.938  | -4.438 |
| C166 | Beta-fenchol (Beta-Fenchyl Alcohol)                        | -2.222 | 2.029  | -4.382 |
| C167 | Beta-Fenchyl-Delta-9-tetrahydrocannabinolate               | -6.049 | 2.514  | -5.062 |
| C168 | Betahistine  | -0.735 | 0.777  | -4.223 |
| C169 | Beta-Irone   | -3.928 | 2.788  | -4.391 |
| C170 | Beta-phellandrene  | -4.138 | 2.655  | -4.31  |
| C171 | Beta-Pinene  | -4.428 | 2.708  | -4.326 |
| C172 | Beta-Selinene  | -5.91  | 2.927  | -4.449 |
| C173 | $\beta$ -sitosteryl-3-O-b-D-glucopyranoside-2'-O-palmitate | -5.549 | 4.523  | -5.088 |
| C174 | Betazole   | -0.006 | -0.046 | -4.44  |
| C175 | Bis-nor-cannabichromanone                                  | -4.583 | 1.193  | -4.657 |
| C176 | Bis-nor-cannabielsoic acid B                               | -4.833 | 0.862  | -5.017 |
| C177 | Bis-nor-cannabielsoin                                      | -4.504 | 1.379  | -4.824 |
| C178 | Bis-nor-cannabitriol                                       | -4.808 | 1.357  | -4.988 |
| C179 | Borneol  | -2.307 | 2.026  | -4.388 |
| C180 | Bornyl Delta-9-tetrahydrocannabinolate                     | -5.939 | 2.988  | -5.055 |
| C181 | Butane   | -2.833 | 1.663  | -4.229 |
| C182 | Butyl formate  | -0.999 | 0.951  | -4.214 |
| C183 | Gamma-Cadinyl Cannabigerolate                              | -5.64  | 2.588  | -5.207 |
| C184 | Calarene   | -5.888 | 2.908  | -4.447 |
| C185 | Camphene   | -4.42  | 2.71   | -4.326 |



|      |   |        |       |        |
|------|---|--------|-------|--------|
| C186 | Cannabichromanone (CBCF)                    | -4.746 | 1.403 | -4.747 |
| C187 | Cannabichromaonone D                        | -4.834 | 2.196 | -4.577 |
| C188 | Cannabichromene (CBC)                       | -4.98  | 1.968 | -4.728 |
| C189 | Cannabichromenic acid (CBCA)                | -5.643 | 1.581 | -5.02  |
| C190 | Cannabichromevarin (CBCV)                   | -4.991 | 1.86  | -4.65  |
| C191 | Cannabichromevarinic acid (CBCVA)           | -5.398 | 1.399 | -4.962 |
| C192 | Cannabicitran                               | -4.956 | 2.471 | -4.576 |
| C193 | Cannabicumaronone                           | -4.956 | 2.209 | -4.563 |
| C194 | Cannabicyclol (CBL)                         | -4.547 | 1.964 | -4.767 |
| C195 | Cannabicyclic acid (CBLA)                   | -5.446 | 1.323 | -5.066 |
| C196 | Cannabicyclovarin (CBLV)                    | -4.545 | 1.741 | -4.687 |
| C197 | Cannabidiol (CBD)                           | -5.258 | 1.864 | -4.923 |
| C198 | Cannabidiolic acid (CBDA)                   | -5.8   | 1.466 | -5.072 |
| C199 | Cannabidiol monomethylether (CBDM)          | -5.463 | 1.991 | -4.863 |
| C200 | Cannabidiorcol (CBD-C1)                     | -4.499 | 1.519 | -4.827 |
| C201 | Cannabidivarin (CBDV)                       | -5.119 | 1.714 | -4.892 |
| C202 | Cannabidivarinic acid (CBDVA)               | -5.064 | 1.299 | -5.04  |
| C203 | Cannabielsoic acid B (CBEA-B)               | -5.256 | 1.268 | -5.066 |
| C204 | Cannabielsoic acid A (CBEA-A)               | -5.25  | 1.279 | -5.076 |
| C205 | Cannabielsoin (CBE)                         | -4.817 | 1.805 | -4.961 |
| C206 | Cannabiflavin B                             | -5.192 | 1.205 | -5.056 |
| C207 | Cannabifuran (CBF)                          | -6.03  | 1.811 | -4.701 |
| C208 | Cannabigerol (CBG)                          | -5.507 | 1.989 | -4.936 |
| C209 | Cannabigerolic acid monomethylether (CBGAM) | -5.948 | 1.689 | -5.059 |
| C210 | Cannabigerolic acid (CBGA)                  | -5.891 | 1.558 | -5.077 |
| C211 | Cannabigerol monomethylether (CBGM)         | -5.554 | 2.059 | -4.836 |
| C212 | Cannabigeroquinone                          | -5.212 | 3.269 | -4.532 |
| C213 | Cannabigerovarin (CBGV)                     | -4.929 | 1.855 | -4.884 |
| C214 | Cannabigerovarinic acid (CBGVA)             | -5.512 | 1.388 | -5.045 |
| C215 | Cannabiglendol                              | -4.424 | 1.409 | -4.832 |
| C216 | Cannabimovone                               | -4.573 | 1.233 | -4.995 |
| C217 | Cannabinerol                                | -5.507 | 1.989 | -4.936 |
| C218 | Cannabinerolic acid                         | -5.891 | 1.558 | -5.077 |
| C219 | Cannabinodiol (CBND)                        | -5.934 | 1.798 | -4.91  |
| C220 | Cannabinodivarin (CBVD)                     | -5.523 | 1.643 | -4.862 |
| C221 | Cannabinol methylether (CBNM)               | -5.999 | 2.334 | -4.565 |
| C222 | Cannabinol (CBN)                            | -5.086 | 1.861 | -4.718 |
| C223 | Cannabinol-C2 (CBN-C2)                      | -4.887 | 1.545 | -4.624 |
| C224 | Cannabinol-C4 (CBN-C4)                      | -5.274 | 1.766 | -4.711 |
| C225 | Cannabinolic acid (CBNA)                    | -5.682 | 1.257 | -4.997 |
| C226 | Cannabiorcol (CBN-C1)                       | -4.855 | 1.45  | -4.608 |

|      |                                  |        |       |        |
|------|----------------------------------|--------|-------|--------|
| C227 | Cannabiorcicchromene             | -4.422 | 1.617 | -4.643 |
| C228 | Cannabiorcicchromenic acid       | -4.914 | 1.147 | -4.853 |
| C229 | Cannabiorcicitran                | -4.58  | 1.895 | -4.482 |
| C230 | Cannabiorcicyclol                | -4.442 | 1.412 | -4.611 |
| C231 | Cannabiorcicyclolic acid         | -4.542 | 0.771 | -4.829 |
| C232 | Cannabioxepane                   | -6.022 | 2.177 | -4.549 |
| C233 | Cannabiripsol (CBR)              | -4.751 | 1.397 | -4.945 |
| C234 | Cannabissativine                 | -2.87  | 1.929 | -5.535 |
| C235 | Cannabisin-A                     | -4.773 | 1.453 | -6.344 |
| C236 | Cannabisin-B                     | -4.32  | 1.173 | -6.537 |
| C237 | Cannabisin-C                     | -4.464 | 1.283 | -6.418 |
| C238 | Cannabisin-D                     | -4.711 | 1.529 | -6.224 |
| C239 | Cannabispirone                   | -3.584 | 0.946 | -4.523 |
| C240 | Cannabitrinol (CBT)              | -4.755 | 1.407 | -4.941 |
| C241 | Cannabitrinolvarin (CBTV)        | -4.246 | 1.651 | -4.616 |
| C242 | Cannabivarin (CBV)               | -5.37  | 1.685 | -4.654 |
| C243 | Cannflavin A                     | -5.846 | 1.834 | -5.192 |
| C244 | Cannflavin B                     | -5.192 | 1.205 | -5.056 |
| C245 | Cannflavin C                     | -5.747 | 1.785 | -5.168 |
| C246 | Carbofuran                       | -2.756 | 0.483 | -4.447 |
| C247 | Carmagerol                       | -4.888 | 1.514 | -5.113 |
| C248 | Carvacrol                        | -2.04  | 1.171 | -4.534 |
| C249 | Carvone                          | -2.063 | 2.07  | -4.258 |
| C250 | CBDA-THC ester                   | -5.379 | 2.803 | -5.211 |
| C251 | Cedryl acetate                   | -4.374 | 3     | -4.458 |
| C252 | Cetyl Alcohol                    | -6.646 | 3.544 | -4.476 |
| C253 | Chiricanine B                    | -4.817 | 1.573 | -4.621 |
| C254 | Chlorocannabiorcicchromenic acid | -5.494 | 1.312 | -4.918 |
| C255 | Chrysoeriol                      | -3.602 | 0.664 | -5.106 |
| C256 | cis-2-Pinanol                    | -2.085 | 1.991 | -4.378 |
| C257 | cis-Beta-Farnesene               | -6.607 | 3.021 | -4.402 |
| C258 | cis-Gamma-Bisabolene             | -6.416 | 2.984 | -4.416 |
| C259 | cis-Ocimene                      | -4.438 | 2.76  | -4.294 |
| C260 | cis-Sabinene Hydrate             | -4.554 | 2.786 | -4.326 |
| C261 | Citronellyl acetate              | -3.332 | 2.768 | -4.328 |
| C262 | Citronellolformate               | -3.113 | 2.152 | -4.304 |
| C263 | Compound-2                       | -4.81  | 1.094 | -4.948 |
| C264 | Compound-3                       | -4.876 | 0.992 | -4.785 |
| C265 | compound-4                       | -4.834 | 2.196 | -4.577 |
| C266 | Confluentin                      | -5.596 | 1.956 | -4.828 |
| C267 | Cumene                           | -3.392 | 2.367 | -4.284 |

|      |   |        |        |        |
|------|---|--------|--------|--------|
| C268 | Cuminaldehyde   | -2.439 | 2.132  | -4.223 |
| C269 | Daurichromenic acid                                     | -6.075 | 1.66   | -5.096 |
| C270 | Delta-9-tetrahydrocannabinolic acid (THCA-C1)           | -4.633 | 1.051  | -4.809 |
| C271 | Decanal   | -3.545 | 3.085  | -4.294 |
| C272 | Decarboxyamorfrutin A                                   | -5.041 | 1.753  | -4.767 |
| C273 | Decarboxyamorfrutin B                                   | -6.863 | 2.159  | -5     |
| C274 | Dehydrocannabifuran (DCBF)                              | -6.056 | 1.782  | -4.678 |
| C275 | Delta-3-Carene  | -4.382 | 2.753  | -4.304 |
| C276 | Delta-7-cis-Isotetrahydrocannabivarin                   | -4.708 | 1.8    | -4.673 |
| C277 | Delta-7-trans-Isotetrahydrocannabinol                   | -3.753 | 1.973  | -4.738 |
| C278 | Delta-8-tetrahydrocannabinol ( $\Delta^8$ -THC)         | -3.723 | 2.011  | -4.746 |
| C279 | Delta-8-tetrahydrocannabinolic acid ( $\Delta^8$ -THCA) | -5.434 | 1.593  | -5.029 |
| C280 | Delta-9-cis-tetrahydrocannabivarin                      | -4.708 | 1.845  | -4.677 |
| C281 | Delta-9-nor-tetrahydrocannbinolic acid                  | -5.52  | 1.548  | -5.016 |
| C282 | Delta-9-nor-tetrahydrocannbinol                         | -4.555 | 1.945  | -4.739 |
| C283 | Delta-9-Tetrahydrocannabinol-C4                         | -4.345 | 1.936  | -4.744 |
| C284 | Delta-9-tetrahydrocannabinorcol (THC-C1)                | -4.471 | 1.609  | -4.636 |
| C285 | Delta-9-tetrahydrocannabinolic acid A (THCA-A)          | -5.434 | 1.593  | -5.029 |
| C286 | Delta-9-tetrahydrocannabinolic acid B (THCA-B)          | -5.43  | 1.595  | -5.01  |
| C287 | Delta-9-tetrahydrocannabinolic acid-C4 (THCA-C4)        | -5.351 | 1.483  | -4.994 |
| C288 | Delta-Cadinene  | -5.888 | 2.963  | -4.458 |
| C289 | Demethylamorfrutin A                                    | -5.303 | 0.804  | -4.992 |
| C290 | Demethyldecarboxyamorfrutin A                           | -4.979 | 1.481  | -4.866 |
| C291 | Deprenyl O-methyl cannbigerolic acid                    | -4.581 | 1.12   | -4.872 |
| C292 | Desmodianone A  | -5.97  | 1.848  | -5.24  |
| C293 | Desmodianone C  | -6.187 | 1.853  | -5.436 |
| C294 | Desmodianone D  | -4.895 | 1.773  | -5.29  |
| C295 | Desmodianone E  | -5.699 | 1.846  | -5.252 |
| C296 | Diacetone alcohol                                       | 0.57   | 0.346  | -4.269 |
| C297 | Dibutyl phthalate                                       | -4.392 | 2.671  | -4.401 |
| C298 | Diethyl Phthalate                                       | -2.396 | 1.799  | -4.403 |
| C299 | Dimethylbenzylcarbiny acetate                           | -2.83  | 2.236  | -4.261 |
| C300 | Dimethylsulfone   | 0.442  | -0.335 | -4.321 |
| C301 | Dimethylsulfide   | -0.595 | 1.036  | -4.207 |
| C302 | Dodecane  | -7.341 | 3.003  | -4.426 |
| C303 | Dothiepin Sulfoxide                                     | -4.596 | 2.857  | -4.415 |
| C304 | Durene  | -4.242 | 2.47   | -4.279 |
| C305 | Dyclocaine  | -4.154 | 1.717  | -4.526 |
| C306 | epi-Bornyl Delta-9-tetrahydrocannabinolate              | -6.041 | 2.522  | -5.059 |
| C307 | Estragole   | -2.749 | 1.278  | -4.132 |
| C308 | Ethylacetate  | -0.045 | 0.166  | -4.253 |

|      |                             |        |        |        |
|------|-----------------------------|--------|--------|--------|
| C309 | Ethylenediamine             | 1.035  | -0.18  | -4.451 |
| C310 | Ethylene oxide              | 1.105  | -0.069 | -4.216 |
| C311 | Ethylenimine                | 0.891  | -0.065 | -4.242 |
| C312 | Eudesmyl-Cannabigerolate    | -5.671 | 2.652  | -5.183 |
| C313 | Eugenol                     | -1.868 | 0.77   | -4.551 |
| C314 | Eugenyl acetate             | -2.608 | 0.909  | -4.366 |
| C315 | Fenchone                    | -2.04  | 2.309  | -4.336 |
| C316 | Fenchyl Alcohol             | -2.222 | 2.029  | -4.382 |
| C317 | Ferruginene A               | -4.962 | 1.423  | -5     |
| C318 | Ferruginene B               | -4.968 | 1.419  | -4.991 |
| C319 | Ferruginene C               | -5.576 | 1.644  | -5.047 |
| C320 | Formic acid                 | 0.85   | -0.769 | -4.522 |
| C321 | Furfural                    | -0.106 | 1.193  | -4.143 |
| C322 | Furfurylmethylamphetamine   | -3.612 | 2.11   | -4.337 |
| C323 | Gamma-curcumene             | -6.4   | 2.996  | -4.458 |
| C324 | Gamma-eudesmol              | -4.363 | 2.94   | -4.428 |
| C325 | Gamma-Gurjunene             | -5.897 | 2.933  | -4.459 |
| C326 | Gamma-Hexalactone           | -0.617 | 1.676  | -4.214 |
| C327 | Gamma-Muurolene             | -5.878 | 2.942  | -4.459 |
| C328 | Gamma-Terpinene             | -4.24  | 2.799  | -4.324 |
| C329 | Glepidotin C                | -4.205 | 1.142  | -4.979 |
| C330 | Globulol                    | -3.686 | 2.733  | -4.424 |
| C331 | Grossamide                  | -4.928 | 1.792  | -6.171 |
| C332 | Guajol                      | -0.73  | 0.151  | -4.514 |
| C333 | Heli-Cannabigenol           | -6.795 | 2.064  | -5.05  |
| C334 | Heptanal                    | -1.895 | 1.899  | -4.233 |
| C335 | Hexadecane                  | -8.358 | 3.7    | -4.45  |
| C336 | Hexahydrocannabinol         | -4.149 | 1.905  | -4.75  |
| C337 | Hexanal                     | -1.271 | 1.646  | -4.215 |
| C338 | Hexanoic acid, methyl ester | -1.932 | 1.371  | -4.219 |
| C339 | Hexanoic acid, propyl ester | -2.813 | 2.274  | -4.231 |
| C340 | Hexestrol                   | -4.461 | 1.473  | -4.83  |
| C341 | Hordenine                   | -1.305 | 0.622  | -4.613 |
| C342 | Hydroxy Heli-Cannabigerol   | -6.92  | 1.906  | -5.134 |
| C343 | Ipsdienol                   | -2.448 | 2      | -4.305 |
| C344 | Isoamyl alcohol             | -0.476 | 1.214  | -4.327 |
| C345 | Isobornyl acetate           | -2.626 | 2.688  | -4.359 |
| C346 | Isobornyl thiocynoacetate   | -3.354 | 2.813  | -4.385 |
| C347 | Isobutane                   | -2.852 | 1.564  | -4.299 |
| C348 | Isobutyraldehyde            | 0.072  | 0.59   | -4.242 |
| C349 | Isobutyrophenone            | -2.417 | 2.046  | -4.207 |

|      |   |        |        |        |
|------|---|--------|--------|--------|
| C350 | Isocannabitol                             | -4.958 | 1.484  | -4.952 |
| C351 | Isocyanatomethane                         | 0.904  | -0.163 | -4.218 |
| C352 | Isodurene                                 | -4.135 | 2.513  | -4.267 |
| C353 | Isoeugenol                                | -2.237 | 1.039  | -4.551 |
| C354 | Isolimonene                               | -4.142 | 2.679  | -4.321 |
| C355 | Isoprene                                  | -2.066 | 1.64   | -4.223 |
| C356 | Isoquinoline                              | -1.575 | 1.78   | -4.064 |
| C357 | Kaempferol                                | -3.427 | 0.273  | -5.074 |
| C358 | Limonene oxide                            | -1.359 | 1.972  | -4.441 |
| C359 | Limonene                                  | -4.142 | 2.791  | -4.329 |
| C360 | Linalool                                  | -2.147 | 2.333  | -4.297 |
| C361 | Linalyl acetate                           | -3.212 | 2.892  | -4.252 |
| C362 | Linoleic acid                             | -4.998 | 1.596  | -4.706 |
| C363 | Longifolene                               | -5.821 | 2.947  | -4.43  |
| C364 | Luteolin                                  | -3.502 | 0.302  | -5.123 |
| C365 | Machaeridiol A                            | -6.6   | 1.814  | -5.024 |
| C366 | Machaeridiol B                            | -6.53  | 1.744  | -5.126 |
| C367 | Machaeridiol C                            | -6.399 | 1.712  | -5.159 |
| C368 | Machaeridiol D                            | -5.821 | 1.677  | -5.165 |
| C369 | m-Cymene                                  | -3.63  | 2.628  | -4.31  |
| C370 | Methacrolein                              | -0.014 | 0.498  | -4.208 |
| C371 | Methacrylic anhydride                     | -1.415 | 1.172  | -4.25  |
| C372 | Methyl acetate                            | 0.606  | -0.114 | -4.265 |
| C373 | Methyl acetylsalicylate                   | -2.198 | 1.203  | -4.342 |
| C374 | Methyl anthranilate                       | -1.738 | 0.847  | -4.458 |
| C375 | Methyl Benzoate                           | -1.674 | 1.366  | -4.166 |
| C376 | Methyl carbamate                          | 0.868  | -0.512 | -4.446 |
| C377 | Methyl heptadienone                       | -1.857 | 1.783  | -4.219 |
| C378 | Methyl heptanoate                         | -2.218 | 1.59   | -4.256 |
| C379 | Methyl Hydrazine                          | 1.196  | -0.067 | -4.249 |
| C380 | Methyl isoeugenol                         | -2.576 | 1.496  | -4.325 |
| C381 | Methyl Salicylate                         | -2.055 | -0.883 | -4.762 |
| C382 | Methyl valerate                           | -1.317 | 1.109  | -4.226 |
| C383 | Methylene Chloride                        | -0.962 | 1.348  | -4.208 |
| C384 | Methylen-bis-Delta-9-tetrahydrocannabinol | -5.955 | 3.193  | -5.219 |
| C385 | Methylisohexenyl ketone                   | -1.998 | 2.128  | -4.232 |
| C386 | m-Tert-Butyl Phenol                       | -2.006 | 1.162  | -4.517 |
| C387 | Myrcene                                   | -4.364 | 2.704  | -4.276 |
| C388 | Nerol                                     | -2.763 | 2.416  | -4.303 |
| C389 | Nerolidol                                 | -4.297 | 3.001  | -4.42  |
| C390 | Nitrobenzene                              | -1.595 | 1.345  | -4.174 |

|      |                                       |        |        |        |
|------|---------------------------------------|--------|--------|--------|
| C391 | Nonanal                               | -3.129 | 2.713  | -4.263 |
| C392 | Nonane                                | -5.691 | 2.939  | -4.308 |
| C393 | nor-Cannabidiol                       | -5.132 | 1.779  | -4.915 |
| C394 | nor-Cannabinol                        | -5.274 | 1.766  | -4.711 |
| C395 | nor-Cannabivarin                      | -4.887 | 1.545  | -4.624 |
| C396 | N-p-Coumaroyltyramine                 | -3.391 | 0.715  | -5.072 |
| C397 | N-trans-feruloyltyramine              | -3.569 | 0.737  | -5.17  |
| C398 | Octanal                               | -2.383 | 2.239  | -4.243 |
| C399 | o-Cymene                              | -3.741 | 2.578  | -4.31  |
| C400 | o-Dimethyl Hydroquinone               | -1.117 | 0.887  | -4.313 |
| C401 | O-Guaiacol                            | -0.73  | 0.151  | -4.514 |
| C402 | Oleic acid                            | -5.074 | 1.613  | -4.697 |
| C403 | O-Methyl Cannabigerol                 | -5.554 | 2.059  | -4.836 |
| C404 | O-Methyl Acetophenone                 | -2.035 | 1.723  | -4.164 |
| C405 | O-Pentyl-cannabidiol                  | -6     | 2.366  | -4.947 |
| C406 | O-Pentyl-Delta-9-tetrahydrocannabinol | -6.549 | 2.839  | -4.686 |
| C407 | O-Propyl-cannabidiol                  | -5.779 | 2.149  | -4.896 |
| C408 | O-Propyl-Delta-9-tetrahydrocannabinol | -6.143 | 2.635  | -4.689 |
| C409 | Orientin                              | -3.326 | -0.084 | -6.422 |
| C410 | O-Xylene                              | -2.817 | 1.947  | -4.215 |
| C411 | P-Acetanisole                         | -1.922 | 0.856  | -4.2   |
| C412 | P-Aminotoluene                        | -1.108 | 1.43   | -4.33  |
| C413 | P-Cymene                              | -3.775 | 2.671  | -4.318 |
| C414 | Pentadecane                           | -8.831 | 3.585  | -4.447 |
| C415 | Pentamethylbenzene                    | -4.159 | 2.668  | -4.303 |
| C416 | Pentanal                              | -0.791 | 1.387  | -4.216 |
| C417 | Perillaldehyde                        | -2.198 | 2.154  | -4.272 |
| C418 | Perrottetinene                        | -6.407 | 2.019  | -4.898 |
| C419 | Perrottetinenic acid                  | -6.196 | 1.644  | -5.212 |
| C420 | P-ethyl Toulene                       | -3.171 | 2.116  | -4.185 |
| C421 | Phenol                                | -0.157 | 0.023  | -4.27  |
| C422 | Phenylethyl alcohol                   | -0.876 | 1.297  | -4.172 |
| C423 | Piperidine                            | 0.235  | 0.541  | -4.194 |
| C424 | Piperonal                             | -1.681 | 1.248  | -4.246 |
| C425 | P-Methyl Acetophenone                 | -2.304 | 1.727  | -4.163 |
| C426 | Propanal                              | 0.686  | 0.292  | -4.2   |
| C427 | Propofol                              | -3.381 | 1.506  | -4.675 |
| C428 | Propanoic acid,anhydride              | -1.017 | 0.646  | -4.274 |
| C429 | Propylamine                           | 0.92   | 0.265  | -4.318 |
| C430 | Propylene Glycol                      | 1.099  | -0.448 | -4.754 |
| C431 | P-Tert-Butylphenol                    | -2.125 | 1.189  | -4.507 |

|      |                                    |        |        |        |
|------|------------------------------------|--------|--------|--------|
| C432 | P-Xylene                           | -2.834 | 1.951  | -4.225 |
| C433 | Quercetin                          | -3.534 | 0.142  | -6.168 |
| C434 | rac-6'-Epoxy cannabinigerol        | -5.464 | 1.93   | -4.99  |
| C435 | rac-6'-Epoxy cannabinigerolic acid | -5.577 | 1.48   | -5.098 |
| C436 | Radulanin A                        | -4.647 | 1.468  | -4.729 |
| C437 | Radulanin H                        | -4.68  | 0.836  | -4.878 |
| C438 | Radulanin I                        | -4.679 | 1.358  | -4.718 |
| C439 | Radulanin J                        | -4.99  | 1.942  | -4.644 |
| C440 | Radulanin K                        | -4.793 | 0.635  | -4.909 |
| C441 | Radulanin L                        | -4.51  | 1.272  | -4.881 |
| C442 | Rhododaurichromanin A              | -5.603 | 1.664  | -5.099 |
| C443 | Roughanic acid                     | -4.467 | 1.34   | -4.649 |
| C444 | Sabinene                           | -4.389 | 2.717  | -4.322 |
| C445 | Salicylaldehyde                    | -0.872 | -0.274 | -4.399 |
| C446 | Sativene                           | -5.71  | 2.929  | -4.432 |
| C447 | Sesquicannabinigerol               | -6.42  | 2.263  | -5.112 |
| C448 | Stearidonic acid                   | -4.813 | 1.49   | -4.713 |
| C449 | Styrene                            | -2.632 | 1.917  | -4.124 |
| C450 | Tert-butyl alcohol                 | 0.798  | 0.229  | -4.275 |
| C451 | Terpinolene                        | -4.273 | 2.839  | -4.274 |
| C452 | tert-butyl-benzene                 | -3.714 | 2.58   | -4.251 |
| C453 | Tetrahydrocannabinol epoxide       | -4.982 | 2.063  | -4.766 |
| C454 | Tetrahydrozoline                   | -2.792 | 2.239  | -4.302 |
| C455 | Thymol                             | -1.986 | 1.209  | -4.534 |
| C456 | Toluene                            | -2.385 | 1.767  | -4.161 |
| C457 | Trans-alpha-farnesene              | -6.071 | 3.053  | -4.407 |
| C458 | Trans-Archidin-1                   | -5.575 | 1.276  | -5.34  |
| C459 | Trans-Archidin-2                   | -5.12  | 1.184  | -4.977 |
| C460 | Trans-gamma-bisabolene             | -6.416 | 2.984  | -4.416 |
| C461 | Trans-ocimene                      | -4.348 | 2.76   | -4.294 |
| C462 | Tridecane                          | -7.482 | 3.027  | -4.427 |
| C463 | Tyramine                           | -1.094 | -0.131 | -4.686 |
| C464 | Undecane                           | -7.038 | 2.973  | -4.4   |
| C465 | Valencene                          | -5.972 | 2.927  | -4.458 |
| C466 | Verbenone                          | -2.14  | 1.971  | -4.334 |
| C467 | Vitexin                            | -3.37  | -0.144 | -6.317 |
| C468 | N-trans-caffeoyltyramine           | -3.49  | 0.483  | -5.465 |
|      |                                    |        |        |        |
|      |                                    |        |        |        |

|      | <b>Metabolites after MDS using CDK (165) (used for MDS using ADMET)</b>                        |        |       |        |
|------|--|--------|-------|--------|
|      |  | log S  | log D | Papp   |
| C19  | 1-(2-chlorophenyl)ethenone   | -2.292 | 1.874 | -4.181 |
| C24  | 2-Formyl-Delta-9-Tetrahydrocannabinol  | -5.499 | 1.941 | -4.896 |
| C25  | 2-Geranyl-5-Hydroxy-3-n-Pentanyl-1,4-Benzoquinone  | -5.543 | 1.793 | -4.775 |
| C38  | 3,4,5,6-tetrahydro-7-hydroxy-a,a-2-trimethyl-9-n-propyl-2,6-methano-2H-1-Benzoxocin-5-methanol | -4.282 | 1.43  | -4.839 |
| C43  | 3-Hydroxy-Delta-4,5-Cannabichromene  | -5.119 | 1.741 | -4.907 |
| C45  | 3-Methyl Acetophenone  | -2.051 | 1.716 | -4.167 |
| C51  | 4,5-Dihydroxy-2,3,6-Trimethoxy-9,10-Dihydrophenanthrene  | -3.65  | 0.991 | -4.882 |
| C53  | 4-Acetoxy Cannabichromene  | -5.608 | 1.93  | -4.858 |
| C54  | 4-Acetoxy-2-geranyl-5-hydroxy-3-n-pentylphenol   | -5.948 | 1.762 | -5.058 |
| C57  | 4-hydroxy-2,3,6,7-tetramethoxy-9,10dihydrophenanthrene   | -3.885 | 1.039 | -4.812 |
| C66  | 5-acetoxy-6-geranyl-3n -pentyl-1,4-benzoquinone  | -5.968 | 3.351 | -4.62  |
| C70  | 5-Methyl-4-Pentyl-Biphenyl-2,2,6-Triol   | -4.764 | 1.305 | -4.974 |
| C75  | 6a-R-Cannabichromanone B   | -4.686 | 1.008 | -4.937 |
| C79  | 7,8-Dehydro-10-O-ethylcannabitrinol  | -4.801 | 1.904 | -5.047 |
| C80  | 7,8-dihydrocannabinol  | -4.416 | 1.996 | -4.721 |
| C81  | 7-Hydroxy Cannabichromane  | -4.935 | 1.857 | -4.916 |
| C82  | 7-hydroxy cannabinol   | -5.313 | 1.705 | -4.963 |
| C83  | 7-Methoxy Cannabispiranone   | -3.643 | 1.528 | -4.427 |
| C84  | 7-R-Cannabicoumarononic acid   | -5.389 | 1.186 | -4.938 |
| C88  | 8a-Hydroxy-Delta-9-tetrahydrocannbinol   | -4.59  | 1.836 | -4.94  |
| C89  | 8-oxo-Delta-9-tetrahydrocannbinol  | -4.769 | 1.783 | -4.718 |
| C90  | 9,10-Anhydrocannabitrinol  | -5.076 | 2.087 | -4.739 |
| C92  | 9 $\beta$ ,10 $\beta$ -Epoxyhexahydrocannabinol  | -4.982 | 2.063 | -4.766 |
| C93  | 10 $\alpha$ -Hydroxy-Delta- 9,11 -hexahydrocannabinol  | -4.629 | 1.802 | -4.938 |
| C94  | 10-Ethoxy-9-hydroxy-delta-6a-tetrahydrocannabinol  | -5.241 | 2.04  | -5.052 |
| C95  | 10-Hydroxy-9-oxo-Delta-8-tetrahydrocannabinol  | -4.814 | 1.31  | -4.882 |
| C96  | 10-O-Ethyl bis-nor cannabitrinol   | -4.795 | 1.856 | -5.012 |
| C97  | 10-Oxo-delta-6a-tetrahydrocannabinol (OTHC)  | -4.8   | 1.788 | -4.722 |
| C100 | abnormal cannabigerol  | -5.432 | 2.006 | -4.918 |
| C105 | acetyl abnormal hydrocannabigeroquinol   | -5.948 | 1.762 | -5.058 |
| C114 | Alpha-Cannabispiranol  | -3.564 | 0.784 | -4.754 |
| C123 | Alpha-Ionol  | -3.279 | 2.745 | -4.357 |
| C124 | Alpa-Linilenic acid  | -4.829 | 1.55  | -4.729 |



|      |                                     |        |       |        |
|------|-------------------------------------|--------|-------|--------|
| C126 | Alpha-Methyl-Cinnamaldehyde         | -2.273 | 1.92  | -4.149 |
| C139 | Amorfrutin-B                        | -6.529 | 1.746 | -5.148 |
| C140 | Anethole                            | -3.074 | 1.455 | -4.158 |
| C141 | Anhydrocannabimovone                | -4.686 | 1.781 | -4.756 |
| C146 | Arachidin-3                         | -5.14  | 1.373 | -5.016 |
| C147 | Araphyn-1                           | -5.405 | 1.522 | -4.876 |
| C160 | Beta-Cannabispiranol                | -3.564 | 0.784 | -4.574 |
| C175 | Bis-nor-cannabichromanone           | -4.583 | 1.193 | -4.657 |
| C177 | Bis-nor-cannabielsoin               | -4.504 | 1.379 | -4.824 |
| C178 | Bis-nor-cannabitol                  | -4.808 | 1.357 | -4.988 |
| C186 | Cannabichromanone (CBCF)            | -4.746 | 1.403 | -4.747 |
| C187 | Cannabichromaonone D                | -4.834 | 2.196 | -4.577 |
| C188 | Cannabichromene (CBC)               | -4.98  | 1.968 | -4.728 |
| C189 | Cannabichromenic acid (CBCA)        | -5.643 | 1.581 | -5.02  |
| C190 | Cannabichromevarin (CBCV)           | -4.991 | 1.86  | -4.65  |
| C191 | Cannabichromevarinic acid (CBCVA)   | -5.398 | 1.399 | -4.962 |
| C192 | Cannabicitran                       | -4.956 | 2.471 | -4.576 |
| C193 | cannabicumaronone                   | -4.956 | 2.209 | -4.563 |
| C194 | Cannabicyclol (CBL)                 | -4.547 | 1.964 | -4.767 |
| C195 | Cannabicyclic acid (CBLA)           | -5.446 | 1.323 | -5.066 |
| C196 | Cannabicyclovarin (CBLV)            | -4.545 | 1.741 | -4.687 |
| C197 | Cannabidiol (CBD)                   | -5.258 | 1.864 | -4.923 |
| C199 | Cannabidiol monomethylether (CBDM)  | -5.463 | 1.991 | -4.863 |
| C200 | Cannabidiorcol (CBD-C1)             | -4.499 | 1.519 | -4.827 |
| C201 | Cannabidivarin (CBDV)               | -5.119 | 1.714 | -4.892 |
| C204 | Cannabielsoic acid A (CBEA-A)       | -5.25  | 1.279 | -5.076 |
| C205 | Cannabielsoin (CBE)                 | -4.817 | 1.805 | -4.961 |
| C207 | Cannabifuran (CBF)                  | -6.03  | 1.811 | -4.701 |
| C211 | Cannabigerol monomethylether (CBGM) | -5.554 | 2.059 | -4.836 |
| C212 | cannabigerquinone                   | -5.212 | 3.269 | -4.532 |
| C213 | Cannabigerovarin (CBGV)             | -4.929 | 1.855 | -4.884 |
| C215 | Cannabiglendol                      | -4.424 | 1.409 | -4.832 |
| C217 | cannabinerol                        | -5.507 | 1.989 | -4.936 |
| C219 | Cannabinodiol (CBND)                | -5.934 | 1.798 | -4.91  |
| C220 | Cannabinodivarin (CBVD)             | -5.523 | 1.643 | -4.862 |
| C221 | Cannabinol methylether (CBNM)       | -5.999 | 2.334 | -4.565 |
| C222 | Cannabinol (CBN)                    | -5.086 | 1.861 | -4.718 |
| C223 | Cannabinol-C2 (CBN-C2)              | -4.887 | 1.545 | -4.624 |
| C224 | Cannabinol-C4 (CBN-C4)              | -5.274 | 1.766 | -4.711 |
| C226 | Cannabiorcol (CBN-C1)               | -4.855 | 1.45  | -4.608 |
| C227 | cannabiorcicchromene                | -4.422 | 1.617 | -4.643 |

|      |  |        |       |        |
|------|--|--------|-------|--------|
| C229 | cannabiorcicitrin                                      | -4.58  | 1.895 | -4.482 |
| C230 | cannabiorcicyclol                                      | -4.442 | 1.412 | -4.611 |
| C231 | cannabiorcicyclolic acid                               | -4.542 | 0.771 | -4.829 |
| C232 | cannabioxepane   | -6.022 | 2.177 | -4.549 |
| C239 | cannabispirone   | -3.584 | 0.946 | -4.523 |
| C241 | Cannabitrinol (CBT)                                    | -4.246 | 1.651 | -4.616 |
| C242 | Cannabitrinolvarin (CBTV)                              | -5.37  | 1.685 | -4.654 |
| C246 | Cannabivarin (CBV)                                     | -2.756 | 0.483 | -4.447 |
| C251 | Cedryl acetate   | -4.374 | 3     | -4.458 |
| C253 | Chiricanine B  | -4.817 | 1.573 | -4.621 |
| C256 | cis-2-pinanol  | -2.085 | 1.991 | -4.378 |
| C261 | Citronellyl acetate                                    | -3.332 | 2.768 | -4.328 |
| C262 | Citronelloformate                                      | -3.113 | 2.152 | -4.304 |
| C263 | compound-2   | -4.81  | 1.094 | -4.948 |
| C264 | Compound-3   | -4.876 | 0.992 | -4.785 |
| C265 | compound-4   | -4.834 | 2.196 | -4.577 |
| C266 | Confluentin  | -5.596 | 1.956 | -4.828 |
| C268 | Cuminaldehyde  | -2.439 | 2.132 | -4.223 |
| C270 | Delta-9-tetrahydrocannabiorcolic acid (THCA-C1)        | -4.633 | 1.051 | -4.809 |
| C272 | Decarboxyamorfrutin A                                  | -5.041 | 1.753 | -4.767 |
| C273 | Decarboxyamorfrutin B                                  | -6.863 | 2.159 | -5     |
| C274 | Dehydrocannabifuran (DCBF)                             | -6.056 | 1.782 | -4.678 |
| C276 | Delta-7-cis-Isotetrahydrocannabivarin                  | -4.708 | 1.8   | -4.673 |
| C277 | Delta-7-trans-Isotetrahydrocannabinol                  | -3.753 | 1.973 | -4.738 |
| C278 | Delta-8-tetrahydrocannabinol ( $\Delta$ 8-THC)         | -3.723 | 2.011 | -4.746 |
| C279 | Delta-8-tetrahydrocannabinolic acid ( $\Delta$ 8-THCA) | -5.434 | 1.593 | -5.029 |
| C280 | Delta-9-cis-tetrahydrocannabivarin                     | -4.708 | 1.845 | -4.677 |
| C281 | Delta-9-nor-tetrahydrocannbinolic acid                 | -5.52  | 1.548 | -5.016 |
| C282 | Delta-9-nor-tetrahydrocannbinol                        | -4.555 | 1.945 | -4.739 |
| C283 | Delta-9-Tetrahydrocannabinol-C4                        | -4.345 | 1.936 | -4.744 |
| C284 | Delta-9-tetrahydrocannabiorcol (THC-C1)                | -4.471 | 1.609 | -4.636 |
| C285 | Delta-9-tetrahydrocannabinolic acid A (THCA-A)         | -5.434 | 1.593 | -5.029 |
| C286 | Delta-9-tetrahydrocannabinolic acid B (THCA-B)         | -5.43  | 1.595 | -5.01  |
| C287 | Delta-9-tetrahydrocannabinolic acid-C4 (THCA-C4)       | -5.351 | 1.483 | -4.994 |
| C290 | Demethyldecarboxyamorfrutin A                          | -4.979 | 1.481 | -4.866 |
| C297 | Dibutyl phthalate                                      | -4.392 | 2.671 | -4.401 |
| C298 | Diethyl Phthalate                                      | -2.396 | 1.799 | -4.403 |
| C299 | Dimethylbenzylcarbiny acetate                          | -2.83  | 2.236 | -4.261 |
| C305 | Dyclocaine   | -4.154 | 1.717 | -4.526 |
| C307 | Estragole  | -2.749 | 1.278 | -4.132 |
| C313 | Eugenol  | -1.868 | 0.77  | -4.551 |

|      |                                  |        |       |        |
|------|----------------------------------|--------|-------|--------|
| C314 | Eugenyl acetate                  | -2.608 | 0.909 | -4.366 |
| C315 | Fenchone                         | -2.04  | 2.309 | -4.336 |
| C317 | Ferruginene A                    | -4.962 | 1.423 | -5     |
| C318 | Ferruginene B                    | -4.968 | 1.419 | -4.991 |
| C319 | Ferruginene C                    | -5.576 | 1.644 | -5.047 |
| C329 | Glepidotin C                     | -4.205 | 1.142 | -4.979 |
| C333 | Heli-Cannabigenol                | -6.795 | 2.064 | -5.05  |
| C336 | Hexahydrocannabinol              | -4.149 | 1.905 | -4.75  |
| C339 | Hexanoic acid, propyl ester      | -2.813 | 2.274 | -4.231 |
| C341 | Hordenine                        | -1.305 | 0.622 | -4.613 |
| C342 | Hydroxy Heli-Cannabigerol        | -6.92  | 1.906 | -5.134 |
| C349 | Isobutyrophenone                 | -2.417 | 2.046 | -4.207 |
| C350 | Isocannabitrol                   | -4.958 | 1.484 | -4.952 |
| C353 | Isoeugenol                       | -2.237 | 1.039 | -4.551 |
| C358 | Limonene oxide                   | -1.359 | 1.972 | -4.441 |
| C361 | linoleic acid                    | -3.212 | 2.892 | -4.252 |
| C362 | Longifolene                      | -4.998 | 1.596 | -4.706 |
| C365 | Machaeridiol A                   | -6.6   | 1.814 | -5.024 |
| C366 | Machaeridiol B                   | -6.53  | 1.744 | -5.126 |
| C367 | Machaeridiol C                   | -6.399 | 1.712 | -5.159 |
| C368 | Machaeridiol D                   | -5.821 | 1.677 | -5.165 |
| C380 | Methyl isoeugenol                | -2.576 | 1.496 | -4.325 |
| C386 | m-Tert-Butyl Phenol              | -2.006 | 1.162 | -4.517 |
| C393 | nor-cannabidiol                  | -5.132 | 1.779 | -4.915 |
| C394 | nor-cannabinol                   | -5.274 | 1.766 | -4.711 |
| C395 | nor-cannabivarin                 | -4.887 | 1.545 | -4.624 |
| C396 | N-p-Coumaroyltyramine            | -3.391 | 0.715 | -5.072 |
| C397 | N-trans-feruloyltyramine         | -3.569 | 0.737 | -5.17  |
| C402 | oleic acid                       | -5.074 | 1.613 | -4.697 |
| C403 | O-Methyl Cannabigerol            | -5.554 | 2.059 | -4.836 |
| C405 | O-Pentyl-cannabidiol             | -6     | 2.366 | -4.947 |
| C407 | O-Propyl-cannabidiol             | -5.779 | 2.149 | -4.896 |
| C411 | p-acetanisole                    | -1.922 | 0.856 | -4.2   |
| C417 | Perillaldehyde                   | -2.198 | 2.154 | -4.272 |
| C418 | Perrottetinene                   | -6.407 | 2.019 | -4.898 |
| C419 | Perrottetinenic acid             | -6.196 | 1.644 | -5.212 |
| C427 | Propofol                         | -3.381 | 1.506 | -4.675 |
| C434 | rac-6'-Epoxy cannabigerol        | -5.464 | 1.93  | -4.99  |
| C435 | rac-6'-Epoxy cannabigerolic acid | -5.577 | 1.48  | -5.098 |
| C436 | Radulanin A                      | -4.647 | 1.468 | -4.729 |
| C437 | Radulanin H                      | -4.68  | 0.836 | -4.878 |

|        |   |        |       |        |
|--------|---|--------|-------|--------|
| C438   | Radulanin I   | -4.679 | 1.358 | -4.718 |
| C440   | Radulanin K   | -4.793 | 0.635 | -4.909 |
| C441   | Radulanin L   | -4.51  | 1.272 | -4.881 |
| C448   | stearidonic acid  | -4.813 | 1.49  | -4.713 |
| C453   | Tetrahydrocannabinol epoxide                                | -4.982 | 2.063 | -4.766 |
| C454   | Tetrahydrozoline  | -2.792 | 2.239 | -4.302 |
| C455   | Thymol  | -1.986 | 1.209 | -4.534 |
| C459   | Trans-Archidin-2  | -5.12  | 1.184 | -4.977 |
| C466   | Verbenone   | -2.14  | 1.971 | -4.334 |
|        |   |        |       |        |
|        | <b>468 Metabolites and positive &amp; negative controls</b> |        |       |        |
|        |   |        |       |        |
| Pgp-In | HIA   | F20%   | F30%  | PPB    |
| 0.732  | 0.528   | 0.281  | 0.3   | 79     |
| 0.911  | 0.713   | 0.363  | 0.534 | 85     |
| 0.873  | 0.72  | 0.508  | 0.44  | 94     |
| 0.858  | 0.583   | 0.529  | 0.371 | 92     |
| 0.884  | 0.702   | 0.347  | 0.547 | 75     |
| 0.933  | 0.74  | 0.487  | 0.531 | 96     |
| 0.966  | 0.808   | 0.236  | 0.269 | 94     |
| 0.964  | 0.621   | 0.42   | 0.37  | 94     |
| 0.506  | 0.699   | 0.7    | 0.624 | 93     |
| 0.725  | 0.598   | 0.531  | 0.626 | 69     |
| 0.222  | 0.722   | 0.59   | 0.507 | 54     |
| 0.249  | 0.443   | 0.408  | 0.455 | 67     |
| 0.055  | 0.786   | 0.588  | 0.343 | 62     |
| 0.713  | 0.785   | 0.627  | 0.547 | 90     |
| 0.83   | 0.799   | 0.434  | 0.515 | 93     |
| 0.26   | 0.797   | 0.504  | 0.553 | 82     |
| 0.768  | 0.726   | 0.559  | 0.623 | 89     |
| 0.018  | 0.821   | 0.613  | 0.764 | 9      |
| 0.398  | 0.795   | 0.546  | 0.586 | 83     |
| 0.675  | 0.589   | 0.526  | 0.521 | 94     |
| 0.362  | 0.577   | 0.397  | 0.255 | 79     |
| 0.935  | 0.818   | 0.194  | 0.164 | 93     |
| 0.5    | 0.607   | 0.087  | 0.094 | 73     |
| 0.332  | 0.736   | 0.617  | 0.584 | 55     |
| 0.063  | 0.768   | 0.656  | 0.457 | 53     |
| 0.268  | 0.809   | 0.664  | 0.663 | 89     |
| 0.411  | 0.776   | 0.325  | 0.575 | 72     |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.713 | 0.785 | 0.627 | 0.547 | 90 |
| 0.579 | 0.756 | 0.46  | 0.682 | 65 |
| 0.042 | 0.759 | 0.607 | 0.171 | 51 |
| 0.056 | 0.432 | 0.395 | 0.246 | 53 |
| 0.33  | 0.615 | 0.437 | 0.5   | 50 |
| 0.062 | 0.627 | 0.196 | 0.129 | 43 |
| 0.794 | 0.705 | 0.458 | 0.431 | 70 |
| 0.646 | 0.742 | 0.635 | 0.738 | 90 |
| 0.252 | 0.84  | 0.751 | 0.61  | 91 |
| 0.884 | 0.702 | 0.347 | 0.547 | 75 |
| 0.782 | 0.702 | 0.347 | 0.493 | 59 |
| 0.83  | 0.75  | 0.562 | 0.632 | 90 |
| 0.702 | 0.776 | 0.478 | 0.662 | 90 |
| 0.797 | 0.825 | 0.367 | 0.509 | 83 |
| 0.736 | 0.775 | 0.199 | 0.249 | 92 |
| 0.74  | 0.757 | 0.289 | 0.225 | 87 |
| 0.826 | 0.289 | 0.59  | 0.212 | 92 |
| 0.86  | 0.7   | 0.543 | 0.456 | 93 |
| 0.8   | 0.816 | 0.531 | 0.567 | 94 |
| 0.81  | 0.689 | 0.355 | 0.442 | 83 |
| 0.455 | 0.687 | 0.457 | 0.734 | 69 |
| 0.492 | 0.748 | 0.179 | 0.183 | 75 |
| 0.734 | 0.438 | 0.411 | 0.356 | 59 |
| 0.903 | 0.516 | 0.38  | 0.402 | 77 |
| 0.947 | 0.734 | 0.459 | 0.321 | 93 |
| 0.418 | 0.63  | 0.188 | 0.412 | 67 |
| 0.455 | 0.732 | 0.446 | 0.466 | 69 |
| 0.898 | 0.81  | 0.3   | 0.214 | 93 |
| 0.59  | 0.745 | 0.555 | 0.462 | 75 |
| 0.637 | 0.698 | 0.44  | 0.529 | 76 |
| 0.316 | 0.833 | 0.767 | 0.642 | 85 |
| 0.702 | 0.808 | 0.547 | 0.532 | 77 |
| 0.726 | 0.844 | 0.387 | 0.364 | 72 |
| 0.251 | 0.755 | 0.605 | 0.65  | 53 |
| 0.205 | 0.85  | 0.697 | 0.638 | 86 |
| 0.222 | 0.674 | 0.647 | 0.704 | 36 |
| 0.735 | 0.667 | 0.468 | 0.374 | 88 |
| 0.7   | 0.413 | 0.298 | 0.346 | 88 |
| 0.741 | 0.667 | 0.468 | 0.348 | 87 |
| 0.741 | 0.667 | 0.468 | 0.365 | 89 |
| 0.647 | 0.499 | 0.31  | 0.326 | 85 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.852 | 0.623 | 0.36  | 0.439 | 86 |
| 0.825 | 0.623 | 0.36  | 0.386 | 86 |
| 0.515 | 0.759 | 0.682 | 0.349 | 84 |
| 0.519 | 0.641 | 0.443 | 0.302 | 90 |
| 0.251 | 0.842 | 0.776 | 0.773 | 40 |
| 0.024 | 0.629 | 0.617 | 0.647 | 9  |
| 0.08  | 0.433 | 0.63  | 0.469 | 34 |
| 0.01  | 0.199 | 0.336 | 0.525 | 10 |
| 0.029 | 0.292 | 0.589 | 0.507 | 23 |
| 0.024 | 0.349 | 0.497 | 0.585 | 26 |
| 0.012 | 0.669 | 0.701 | 0.721 | 11 |
| 0.049 | 0.767 | 0.793 | 0.707 | 32 |
| 0.029 | 0.567 | 0.543 | 0.606 | 15 |
| 0.02  | 0.732 | 0.794 | 0.745 | 33 |
| 0.07  | 0.589 | 0.83  | 0.694 | 20 |
| 0.036 | 0.641 | 0.747 | 0.637 | 23 |
| 0.099 | 0.798 | 0.847 | 0.78  | 46 |
| 0.026 | 0.528 | 0.494 | 0.637 | 19 |
| 0.515 | 0.243 | 0.417 | 0.463 | 60 |
| 0.242 | 0.571 | 0.191 | 0.207 | 77 |
| 0.094 | 0.769 | 0.823 | 0.683 | 62 |
| 0.023 | 0.708 | 0.744 | 0.641 | 50 |
| 0.013 | 0.745 | 0.803 | 0.717 | 26 |
| 0.922 | 0.82  | 0.206 | 0.141 | 97 |
| 0.013 | 0.735 | 0.804 | 0.807 | 12 |
| 0.026 | 0.899 | 0.784 | 0.842 | 69 |
| 0.169 | 0.904 | 0.686 | 0.777 | 70 |
| 0.013 | 0.846 | 0.815 | 0.846 | 26 |
| 0.127 | 0.874 | 0.78  | 0.877 | 67 |
| 0.083 | 0.94  | 0.782 | 0.77  | 71 |
| 0.075 | 0.793 | 0.45  | 0.433 | 42 |
| 0.229 | 0.683 | 0.333 | 0.521 | 46 |
| 0.085 | 0.795 | 0.218 | 0.258 | 54 |
| 0.085 | 0.795 | 0.218 | 0.175 | 70 |
| 0.189 | 0.741 | 0.723 | 0.661 | 66 |
| 0.032 | 0.769 | 0.723 | 0.731 | 64 |
| 0.024 | 0.831 | 0.635 | 0.671 | 70 |
| 0.047 | 0.744 | 0.516 | 0.595 | 89 |
| 0.03  | 0.938 | 0.726 | 0.786 | 38 |
| 0.027 | 0.954 | 0.767 | 0.867 | 24 |
| 0.066 | 0.8   | 0.716 | 0.692 | 40 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.192 | 0.663 | 0.352 | 0.395 | 38 |
| 0.122 | 0.877 | 0.834 | 0.819 | 67 |
| 0.177 | 0.912 | 0.787 | 0.845 | 65 |
| 0.087 | 0.656 | 0.383 | 0.574 | 15 |
| 0.122 | 0.816 | 0.326 | 0.505 | 59 |
| 0.283 | 0.918 | 0.764 | 0.78  | 68 |
| 0.949 | 0.791 | 0.348 | 0.315 | 93 |
| 0.685 | 0.66  | 0.437 | 0.357 | 93 |
| 0.22  | 0.773 | 0.602 | 0.429 | 60 |
| 0.061 | 0.83  | 0.725 | 0.763 | 54 |
| 0.043 | 0.908 | 0.719 | 0.731 | 41 |
| 0.038 | 0.79  | 0.794 | 0.768 | 10 |
| 0.397 | 0.942 | 0.774 | 0.624 | 66 |
| 0.016 | 0.885 | 0.773 | 0.821 | 9  |
| 0.018 | 0.759 | 0.844 | 0.804 | 39 |
| 0.164 | 0.757 | 0.704 | 0.764 | 59 |
| 0.021 | 0.68  | 0.647 | 0.734 | 29 |
| 0.284 | 0.609 | 0.497 | 0.514 | 44 |
| 0.367 | 0.554 | 0.572 | 0.587 | 69 |
| 0.359 | 0.824 | 0.785 | 0.459 | 63 |
| 0.593 | 0.788 | 0.455 | 0.415 | 90 |
| 0.015 | 0.831 | 0.635 | 0.662 | 63 |
| 0.231 | 0.771 | 0.727 | 0.708 | 67 |
| 0.625 | 0.939 | 0.771 | 0.737 | 65 |
| 0.315 | 0.903 | 0.745 | 0.81  | 71 |
| 0.637 | 0.783 | 0.354 | 0.36  | 92 |
| 0.379 | 0.929 | 0.808 | 0.764 | 66 |
| 0.456 | 0.945 | 0.806 | 0.829 | 66 |
| 0.198 | 0.754 | 0.592 | 0.539 | 64 |
| 0.256 | 0.796 | 0.703 | 0.881 | 47 |
| 0.06  | 0.79  | 0.696 | 0.78  | 59 |
| 0.258 | 0.554 | 0.572 | 0.534 | 76 |
| 0.04  | 0.818 | 0.603 | 0.711 | 49 |
| 0.166 | 0.614 | 0.633 | 0.59  | 74 |
| 0.246 | 0.619 | 0.633 | 0.501 | 77 |
| 0.778 | 0.625 | 0.265 | 0.373 | 92 |
| 0.774 | 0.528 | 0.387 | 0.385 | 88 |
| 0.253 | 0.862 | 0.763 | 0.699 | 68 |
| 0.57  | 0.778 | 0.721 | 0.761 | 49 |
| 0.117 | 0.689 | 0.661 | 0.607 | 76 |
| 0.472 | 0.778 | 0.598 | 0.531 | 59 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.192 | 0.754 | 0.592 | 0.443 | 66 |
| 0.022 | 0.954 | 0.754 | 0.877 | 17 |
| 0.066 | 0.778 | 0.671 | 0.622 | 47 |
| 0.136 | 0.793 | 0.847 | 0.786 | 60 |
| 0.045 | 0.88  | 0.799 | 0.758 | 34 |
| 0.974 | 0.669 | 0.229 | 0.257 | 90 |
| 0.958 | 0.662 | 0.245 | 0.326 | 91 |
| 0.925 | 0.586 | 0.276 | 0.37  | 91 |
| 0.853 | 0.585 | 0.397 | 0.339 | 88 |
| 0.214 | 0.96  | 0.766 | 0.817 | 50 |
| 0.797 | 0.538 | 0.408 | 0.387 | 89 |
| 0.538 | 0.668 | 0.459 | 0.359 | 89 |
| 0.167 | 0.898 | 0.696 | 0.794 | 69 |
| 0.425 | 0.789 | 0.522 | 0.634 | 54 |
| 0.566 | 0.512 | 0.393 | 0.303 | 88 |
| 0.566 | 0.512 | 0.393 | 0.303 | 88 |
| 0.72  | 0.659 | 0.376 | 0.292 | 91 |
| 0.766 | 0.667 | 0.441 | 0.344 | 89 |
| 0.694 | 0.545 | 0.582 | 0.344 | 93 |
| 0.628 | 0.511 | 0.536 | 0.369 | 92 |
| 0.61  | 0.639 | 0.36  | 0.314 | 92 |
| 0.831 | 0.822 | 0.214 | 0.378 | 93 |
| 0.79  | 0.736 | 0.385 | 0.307 | 93 |
| 0.66  | 0.75  | 0.404 | 0.345 | 90 |
| 0.389 | 0.818 | 0.553 | 0.64  | 72 |
| 0.905 | 0.676 | 0.459 | 0.408 | 93 |
| 0.537 | 0.636 | 0.36  | 0.315 | 93 |
| 0.547 | 0.564 | 0.436 | 0.399 | 90 |
| 0.659 | 0.74  | 0.405 | 0.381 | 90 |
| 0.848 | 0.773 | 0.358 | 0.235 | 94 |
| 0.898 | 0.802 | 0.365 | 0.247 | 95 |
| 0.693 | 0.781 | 0.375 | 0.326 | 94 |
| 0.717 | 0.734 | 0.595 | 0.58  | 76 |
| 0.838 | 0.78  | 0.47  | 0.297 | 92 |
| 0.745 | 0.761 | 0.348 | 0.279 | 94 |
| 0.7   | 0.655 | 0.382 | 0.341 | 94 |
| 0.7   | 0.583 | 0.399 | 0.267 | 93 |
| 0.839 | 0.636 | 0.442 | 0.431 | 89 |
| 0.854 | 0.801 | 0.327 | 0.319 | 95 |
| 0.841 | 0.481 | 0.3   | 0.24  | 91 |
| 0.915 | 0.481 | 0.3   | 0.217 | 91 |



|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.664 | 0.706 | 0.44  | 0.344 | 88 |
| 0.039 | 0.812 | 0.742 | 0.759 | 14 |
| 0.015 | 0.797 | 0.884 | 0.723 | 9  |
| 0.012 | 0.824 | 0.733 | 0.604 | 12 |
| 0.022 | 0.789 | 0.731 | 0.598 | 30 |
| 0.774 | 0.528 | 0.387 | 0.385 | 88 |
| 0.925 | 0.586 | 0.276 | 0.37  | 91 |
| 0.072 | 0.784 | 0.711 | 0.639 | 28 |
| 0.132 | 0.946 | 0.81  | 0.869 | 51 |
| 0.486 | 0.796 | 0.707 | 0.652 | 75 |
| 0.635 | 0.885 | 0.513 | 0.455 | 86 |
| 0.412 | 0.792 | 0.681 | 0.507 | 76 |
| 0.358 | 0.874 | 0.767 | 0.567 | 76 |
| 0.986 | 0.669 | 0.229 | 0.24  | 88 |
| 0.088 | 0.76  | 0.453 | 0.455 | 67 |
| 0.193 | 0.861 | 0.737 | 0.628 | 74 |
| 0.457 | 0.834 | 0.686 | 0.468 | 79 |
| 0.484 | 0.844 | 0.701 | 0.624 | 75 |
| 0.557 | 0.872 | 0.736 | 0.598 | 75 |
| 0.183 | 0.901 | 0.471 | 0.609 | 78 |
| 0.425 | 0.792 | 0.681 | 0.566 | 76 |
| 0.458 | 0.799 | 0.709 | 0.604 | 74 |
| 0.198 | 0.792 | 0.707 | 0.646 | 74 |
| 0.203 | 0.863 | 0.65  | 0.48  | 84 |
| 0.307 | 0.805 | 0.568 | 0.396 | 88 |
| 0.236 | 0.841 | 0.713 | 0.541 | 75 |
| 0.205 | 0.93  | 0.803 | 0.734 | 59 |
| 0.142 | 0.864 | 0.764 | 0.606 | 75 |
| 0.154 | 0.83  | 0.727 | 0.66  | 68 |
| 0.171 | 0.877 | 0.711 | 0.54  | 76 |
| 0.984 | 0.674 | 0.231 | 0.229 | 89 |
| 0.089 | 0.855 | 0.767 | 0.7   | 76 |
| 0.232 | 0.872 | 0.509 | 0.605 | 69 |
| 0.131 | 0.851 | 0.704 | 0.626 | 68 |
| 0.457 | 0.834 | 0.686 | 0.468 | 79 |
| 0.484 | 0.844 | 0.701 | 0.624 | 75 |
| 0.774 | 0.489 | 0.463 | 0.437 | 93 |
| 0.764 | 0.517 | 0.41  | 0.41  | 89 |
| 0.724 | 0.505 | 0.509 | 0.446 | 92 |
| 0.904 | 0.529 | 0.412 | 0.442 | 91 |
| 0.44  | 0.846 | 0.738 | 0.65  | 67 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.637 | 0.789 | 0.438 | 0.384 | 95 |
| 0.443 | 0.711 | 0.536 | 0.357 | 78 |
| 0.329 | 0.574 | 0.439 | 0.493 | 91 |
| 0.128 | 0.587 | 0.507 | 0.552 | 82 |
| 0.328 | 0.531 | 0.542 | 0.465 | 90 |
| 0.129 | 0.617 | 0.581 | 0.535 | 90 |
| 0.169 | 0.618 | 0.557 | 0.617 | 88 |
| 0.269 | 0.512 | 0.501 | 0.439 | 84 |
| 0.337 | 0.512 | 0.501 | 0.526 | 89 |
| 0.397 | 0.868 | 0.734 | 0.613 | 76 |
| 0.486 | 0.796 | 0.707 | 0.652 | 75 |
| 0.126 | 0.927 | 0.782 | 0.847 | 42 |
| 0.047 | 0.916 | 0.79  | 0.888 | 45 |
| 0.114 | 0.911 | 0.751 | 0.837 | 75 |
| 0.198 | 0.879 | 0.429 | 0.453 | 85 |
| 0.238 | 0.829 | 0.709 | 0.386 | 41 |
| 0.074 | 0.858 | 0.658 | 0.681 | 43 |
| 0.457 | 0.799 | 0.705 | 0.643 | 37 |
| 0.234 | 0.898 | 0.782 | 0.774 | 50 |
| 0.088 | 0.76  | 0.453 | 0.455 | 67 |
| 0.254 | 0.776 | 0.573 | 0.631 | 79 |
| 0.251 | 0.766 | 0.675 | 0.576 | 76 |
| 0.218 | 0.858 | 0.731 | 0.641 | 74 |
| 0.33  | 0.849 | 0.713 | 0.53  | 73 |
| 0.205 | 0.897 | 0.476 | 0.596 | 79 |
| 0.08  | 0.849 | 0.414 | 0.577 | 63 |
| 0.985 | 0.687 | 0.268 | 0.258 | 88 |
| 0.206 | 0.905 | 0.794 | 0.736 | 28 |
| 0.645 | 0.858 | 0.765 | 0.587 | 82 |
| 0.22  | 0.855 | 0.761 | 0.641 | 74 |
| 0.214 | 0.825 | 0.673 | 0.675 | 69 |
| 0.158 | 0.881 | 0.701 | 0.552 | 75 |
| 0.961 | 0.409 | 0.296 | 0.309 | 79 |
| 0.038 | 0.689 | 0.705 | 0.666 | 15 |
| 0.526 | 0.683 | 0.412 | 0.424 | 92 |
| 0.274 | 0.647 | 0.463 | 0.433 | 87 |
| 0.523 | 0.766 | 0.454 | 0.453 | 93 |
| 0.699 | 0.612 | 0.406 | 0.451 | 85 |
| 0.099 | 0.877 | 0.343 | 0.579 | 63 |
| 0.977 | 0.692 | 0.201 | 0.23  | 88 |
| 0.033 | 0.775 | 0.72  | 0.781 | 57 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.349 | 0.724 | 0.588 | 0.548 | 34 |
| 0.969 | 0.551 | 0.325 | 0.281 | 84 |
| 0.356 | 0.868 | 0.734 | 0.705 | 76 |
| 0.174 | 0.847 | 0.7   | 0.714 | 69 |
| 0.848 | 0.71  | 0.449 | 0.34  | 93 |
| 0.923 | 0.797 | 0.438 | 0.383 | 93 |
| 0.76  | 0.829 | 0.258 | 0.386 | 94 |
| 0.693 | 0.58  | 0.352 | 0.413 | 92 |
| 0.628 | 0.827 | 0.32  | 0.472 | 92 |
| 0.568 | 0.574 | 0.39  | 0.491 | 92 |
| 0.875 | 0.832 | 0.515 | 0.387 | 90 |
| 0.936 | 0.802 | 0.586 | 0.363 | 91 |
| 0.702 | 0.792 | 0.363 | 0.349 | 95 |
| 0.658 | 0.567 | 0.436 | 0.361 | 93 |
| 0.551 | 0.788 | 0.409 | 0.463 | 90 |
| 0.858 | 0.703 | 0.467 | 0.292 | 88 |
| 0.771 | 0.555 | 0.439 | 0.288 | 88 |
| 0.941 | 0.776 | 0.489 | 0.296 | 93 |
| 0.433 | 0.697 | 0.549 | 0.457 | 86 |
| 0.756 | 0.698 | 0.515 | 0.4   | 88 |
| 0.659 | 0.548 | 0.481 | 0.367 | 88 |
| 0.402 | 0.654 | 0.426 | 0.368 | 89 |
| 0.601 | 0.57  | 0.412 | 0.349 | 89 |
| 0.675 | 0.772 | 0.416 | 0.36  | 94 |
| 0.812 | 0.485 | 0.532 | 0.424 | 92 |
| 0.757 | 0.82  | 0.43  | 0.402 | 92 |
| 0.665 | 0.706 | 0.44  | 0.377 | 89 |
| 0.797 | 0.538 | 0.408 | 0.387 | 89 |
| 0.6   | 0.529 | 0.405 | 0.342 | 87 |
| 0.879 | 0.78  | 0.449 | 0.403 | 92 |
| 0.749 | 0.795 | 0.665 | 0.34  | 91 |
| 0.492 | 0.706 | 0.44  | 0.452 | 88 |
| 0.454 | 0.529 | 0.405 | 0.419 | 87 |
| 0.569 | 0.791 | 0.48  | 0.423 | 92 |
| 0.545 | 0.541 | 0.532 | 0.423 | 88 |
| 0.665 | 0.706 | 0.44  | 0.377 | 89 |
| 0.6   | 0.529 | 0.405 | 0.342 | 87 |
| 0.723 | 0.691 | 0.467 | 0.349 | 88 |
| 0.561 | 0.642 | 0.544 | 0.408 | 87 |
| 0.965 | 0.776 | 0.447 | 0.391 | 93 |
| 0.765 | 0.807 | 0.327 | 0.326 | 93 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.5   | 0.77  | 0.444 | 0.401 | 90 |
| 0.759 | 0.792 | 0.408 | 0.356 | 93 |
| 0.714 | 0.564 | 0.436 | 0.346 | 92 |
| 0.212 | 0.759 | 0.444 | 0.406 | 81 |
| 0.62  | 0.829 | 0.385 | 0.425 | 90 |
| 0.485 | 0.574 | 0.439 | 0.488 | 91 |
| 0.58  | 0.828 | 0.534 | 0.564 | 72 |
| 0.311 | 0.782 | 0.443 | 0.507 | 80 |
| 0.248 | 0.587 | 0.507 | 0.443 | 83 |
| 0.829 | 0.806 | 0.513 | 0.51  | 90 |
| 0.603 | 0.598 | 0.443 | 0.3   | 92 |
| 0.523 | 0.516 | 0.471 | 0.387 | 71 |
| 0.432 | 0.386 | 0.432 | 0.472 | 88 |
| 0.75  | 0.408 | 0.437 | 0.375 | 88 |
| 0.847 | 0.479 | 0.489 | 0.393 | 88 |
| 0.816 | 0.532 | 0.509 | 0.391 | 89 |
| 0.098 | 0.796 | 0.523 | 0.491 | 70 |
| 0.561 | 0.636 | 0.36  | 0.318 | 93 |
| 0.644 | 0.726 | 0.412 | 0.403 | 94 |
| 0.626 | 0.78  | 0.417 | 0.397 | 92 |
| 0.934 | 0.515 | 0.435 | 0.411 | 92 |
| 0.812 | 0.485 | 0.532 | 0.424 | 92 |
| 0.878 | 0.515 | 0.435 | 0.413 | 92 |
| 0.444 | 0.6   | 0.505 | 0.603 | 62 |
| 0.639 | 0.569 | 0.438 | 0.334 | 86 |
| 0.023 | 0.805 | 0.594 | 0.628 | 80 |
| 0.167 | 0.853 | 0.72  | 0.619 | 70 |
| 0.973 | 0.59  | 0.342 | 0.311 | 86 |
| 0.411 | 0.783 | 0.474 | 0.478 | 78 |
| 0.085 | 0.795 | 0.218 | 0.175 | 74 |
| 0.856 | 0.709 | 0.538 | 0.527 | 96 |
| 0.45  | 0.606 | 0.538 | 0.504 | 92 |
| 0.586 | 0.498 | 0.635 | 0.495 | 89 |
| 0.154 | 0.839 | 0.395 | 0.653 | 59 |
| 0.411 | 0.727 | 0.645 | 0.457 | 79 |
| 0.646 | 0.832 | 0.685 | 0.564 | 79 |
| 0.101 | 0.761 | 0.718 | 0.554 | 71 |
| 0.261 | 0.853 | 0.688 | 0.588 | 67 |
| 0.385 | 0.7   | 0.498 | 0.333 | 73 |
| 0.467 | 0.7   | 0.498 | 0.485 | 69 |
| 0.814 | 0.657 | 0.431 | 0.329 | 90 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.85  | 0.667 | 0.441 | 0.323 | 89 |
| 0.923 | 0.797 | 0.438 | 0.383 | 93 |
| 0.811 | 0.835 | 0.359 | 0.401 | 93 |
| 0.086 | 0.921 | 0.793 | 0.884 | 57 |
| 0.16  | 0.929 | 0.808 | 0.828 | 60 |
| 0.713 | 0.586 | 0.396 | 0.455 | 91 |
| 0.506 | 0.6   | 0.448 | 0.358 | 89 |
| 0.539 | 0.768 | 0.562 | 0.416 | 70 |
| 0.621 | 0.764 | 0.584 | 0.512 | 93 |
| 0.867 | 0.771 | 0.464 | 0.493 | 91 |
| 0.713 | 0.821 | 0.385 | 0.419 | 91 |
| 0.19  | 0.847 | 0.723 | 0.627 | 69 |
| 0.596 | 0.838 | 0.3   | 0.457 | 94 |
| 0.735 | 0.838 | 0.3   | 0.343 | 96 |
| 0.845 | 0.82  | 0.206 | 0.288 | 97 |
| 0.889 | 0.577 | 0.345 | 0.251 | 94 |
| 0.867 | 0.818 | 0.275 | 0.274 | 94 |
| 0.887 | 0.557 | 0.417 | 0.332 | 91 |
| 0.918 | 0.794 | 0.337 | 0.316 | 94 |
| 0.921 | 0.818 | 0.275 | 0.191 | 96 |
| 0.631 | 0.811 | 0.363 | 0.373 | 82 |
| 0.889 | 0.577 | 0.345 | 0.251 | 94 |
| 0.807 | 0.651 | 0.327 | 0.252 | 94 |
| 0.886 | 0.571 | 0.385 | 0.255 | 93 |
| 0.432 | 0.861 | 0.7   | 0.602 | 77 |
| 0.444 | 0.448 | 0.526 | 0.42  | 91 |
| 0.24  | 0.633 | 0.529 | 0.522 | 87 |
| 0.506 | 0.534 | 0.439 | 0.393 | 90 |
| 0.903 | 0.568 | 0.493 | 0.363 | 91 |
| 0.802 | 0.532 | 0.452 | 0.388 | 89 |
| 0.698 | 0.576 | 0.545 | 0.411 | 85 |
| 0.807 | 0.585 | 0.496 | 0.307 | 88 |
| 0.04  | 0.715 | 0.625 | 0.577 | 35 |
| 0.592 | 0.653 | 0.502 | 0.414 | 83 |
| 0.507 | 0.669 | 0.57  | 0.482 | 65 |
| 0.451 | 0.787 | 0.711 | 0.542 | 65 |
| 0.018 | 0.671 | 0.676 | 0.797 | 21 |
| 0.024 | 0.736 | 0.703 | 0.704 | 31 |
| 0.076 | 0.762 | 0.588 | 0.46  | 69 |
| 0.773 | 0.832 | 0.668 | 0.696 | 84 |
| 0.021 | 0.899 | 0.784 | 0.9   | 69 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.904 | 0.662 | 0.388 | 0.421 | 86 |
| 0.978 | 0.686 | 0.246 | 0.207 | 88 |
| 0.369 | 0.83  | 0.721 | 0.586 | 57 |
| 0.14  | 0.756 | 0.628 | 0.397 | 9  |
| 0.014 | 0.239 | 0.723 | 0.777 | 12 |
| 0.016 | 0.777 | 0.666 | 0.725 | 16 |
| 0.018 | 0.734 | 0.776 | 0.707 | 10 |
| 0.979 | 0.631 | 0.315 | 0.295 | 85 |
| 0.202 | 0.769 | 0.648 | 0.538 | 63 |
| 0.611 | 0.773 | 0.717 | 0.522 | 73 |
| 0.139 | 0.841 | 0.643 | 0.715 | 65 |
| 0.08  | 0.849 | 0.414 | 0.577 | 63 |
| 0.636 | 0.719 | 0.472 | 0.341 | 91 |
| 0.653 | 0.716 | 0.479 | 0.396 | 91 |
| 0.738 | 0.698 | 0.459 | 0.315 | 90 |
| 0.039 | 0.803 | 0.7   | 0.6   | 11 |
| 0.16  | 0.808 | 0.646 | 0.836 | 28 |
| 0.215 | 0.841 | 0.562 | 0.425 | 87 |
| 0.506 | 0.832 | 0.685 | 0.576 | 80 |
| 0.363 | 0.904 | 0.462 | 0.501 | 78 |
| 0.286 | 0.792 | 0.681 | 0.517 | 76 |
| 0.314 | 0.764 | 0.536 | 0.731 | 33 |
| 0.436 | 0.858 | 0.705 | 0.609 | 76 |
| 0.112 | 0.853 | 0.691 | 0.7   | 76 |
| 0.345 | 0.619 | 0.494 | 0.466 | 89 |
| 0.441 | 0.824 | 0.356 | 0.513 | 77 |
| 0.893 | 0.508 | 0.51  | 0.35  | 88 |
| 0.06  | 0.772 | 0.672 | 0.748 | 44 |
| 0.608 | 0.691 | 0.443 | 0.468 | 88 |
| 0.539 | 0.768 | 0.562 | 0.476 | 59 |
| 0.076 | 0.762 | 0.588 | 0.46  | 71 |
| 0.843 | 0.83  | 0.342 | 0.288 | 95 |
| 0.527 | 0.774 | 0.592 | 0.547 | 56 |
| 0.308 | 0.744 | 0.549 | 0.425 | 47 |
| 0.247 | 0.741 | 0.443 | 0.257 | 56 |
| 0.073 | 0.789 | 0.525 | 0.636 | 84 |
| 0.097 | 0.724 | 0.559 | 0.609 | 51 |
| 0.515 | 0.662 | 0.453 | 0.422 | 89 |
| 0.217 | 0.79  | 0.62  | 0.499 | 59 |
| 0.065 | 0.774 | 0.555 | 0.63  | 48 |
| 0.419 | 0.78  | 0.454 | 0.354 | 66 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.399 | 0.714 | 0.472 | 0.369 | 75 |
| 0.021 | 0.769 | 0.723 | 0.753 | 54 |
| 0.057 | 0.796 | 0.737 | 0.711 | 43 |
| 0.124 | 0.924 | 0.798 | 0.784 | 60 |
| 0.674 | 0.608 | 0.393 | 0.291 | 92 |
| 0.018 | 0.767 | 0.763 | 0.728 | 17 |
| 0.047 | 0.899 | 0.784 | 0.852 | 70 |
| 0.152 | 0.779 | 0.662 | 0.605 | 72 |
| 0.144 | 0.871 | 0.759 | 0.587 | 74 |
| 0.061 | 0.788 | 0.728 | 0.653 | 58 |
| 0.053 | 0.938 | 0.662 | 0.651 | 50 |
| 0.28  | 0.47  | 0.575 | 0.492 | 91 |
| 0.309 | 0.81  | 0.605 | 0.583 | 48 |
| 0.218 | 0.844 | 0.676 | 0.607 | 75 |
| 0.311 | 0.79  | 0.579 | 0.445 | 71 |
| 0.544 | 0.709 | 0.603 | 0.427 | 75 |
| 0.316 | 0.794 | 0.453 | 0.312 | 86 |
| 0.211 | 0.857 | 0.735 | 0.57  | 75 |
| 0.366 | 0.438 | 0.557 | 0.462 | 92 |
| 0.696 | 0.682 | 0.438 | 0.512 | 89 |
| 0.749 | 0.655 | 0.436 | 0.491 | 90 |
| 0.813 | 0.681 | 0.443 | 0.438 | 89 |
| 0.85  | 0.689 | 0.519 | 0.367 | 89 |
| 0.281 | 0.905 | 0.781 | 0.823 | 70 |
| 0.069 | 0.799 | 0.733 | 0.681 | 33 |
| 0.141 | 0.661 | 0.59  | 0.524 | 46 |
| 0.063 | 0.753 | 0.707 | 0.588 | 10 |
| 0.565 | 0.702 | 0.732 | 0.683 | 50 |
| 0.252 | 0.8   | 0.808 | 0.668 | 42 |
| 0.304 | 0.862 | 0.791 | 0.721 | 37 |
| 0.044 | 0.619 | 0.718 | 0.691 | 11 |
| 0.036 | 0.769 | 0.726 | 0.592 | 66 |
| 0.32  | 0.745 | 0.517 | 0.37  | 53 |
| 0.011 | 0.699 | 0.848 | 0.795 | 16 |
| 0.349 | 0.775 | 0.695 | 0.754 | 70 |
| 0.175 | 0.813 | 0.832 | 0.671 | 47 |
| 0.296 | 0.744 | 0.609 | 0.44  | 41 |
| 0.022 | 0.701 | 0.671 | 0.724 | 42 |
| 0.936 | 0.654 | 0.364 | 0.246 | 88 |
| 0.289 | 0.751 | 0.711 | 0.583 | 67 |
| 0.1   | 0.78  | 0.543 | 0.537 | 80 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.297 | 0.749 | 0.715 | 0.519 | 70 |
| 0.209 | 0.77  | 0.452 | 0.469 | 74 |
| 0.586 | 0.797 | 0.512 | 0.421 | 85 |
| 0.063 | 0.788 | 0.707 | 0.834 | 39 |
| 0.539 | 0.768 | 0.562 | 0.416 | 60 |
| 0.076 | 0.762 | 0.588 | 0.46  | 64 |
| 0.854 | 0.698 | 0.515 | 0.339 | 88 |
| 0.759 | 0.792 | 0.408 | 0.356 | 93 |
| 0.5   | 0.77  | 0.444 | 0.401 | 90 |
| 0.443 | 0.646 | 0.584 | 0.529 | 86 |
| 0.617 | 0.577 | 0.561 | 0.425 | 91 |
| 0.539 | 0.768 | 0.562 | 0.443 | 63 |
| 0.338 | 0.876 | 0.767 | 0.781 | 72 |
| 0.16  | 0.786 | 0.7   | 0.895 | 43 |
| 0.06  | 0.772 | 0.672 | 0.748 | 44 |
| 0.275 | 0.794 | 0.453 | 0.264 | 85 |
| 0.879 | 0.78  | 0.449 | 0.403 | 92 |
| 0.322 | 0.922 | 0.8   | 0.779 | 62 |
| 0.943 | 0.754 | 0.466 | 0.285 | 89 |
| 0.987 | 0.762 | 0.401 | 0.373 | 91 |
| 0.935 | 0.754 | 0.466 | 0.315 | 91 |
| 0.985 | 0.762 | 0.401 | 0.413 | 92 |
| 0.511 | 0.263 | 0.494 | 0.334 | 76 |
| 0.083 | 0.916 | 0.795 | 0.875 | 66 |
| 0.316 | 0.839 | 0.765 | 0.616 | 49 |
| 0.045 | 0.936 | 0.918 | 0.883 | 48 |
| 0.119 | 0.905 | 0.781 | 0.829 | 70 |
| 0.076 | 0.762 | 0.588 | 0.46  | 71 |
| 0.027 | 0.899 | 0.784 | 0.869 | 67 |
| 0.461 | 0.783 | 0.686 | 0.594 | 49 |
| 0.348 | 0.855 | 0.687 | 0.633 | 70 |
| 0.907 | 0.801 | 0.323 | 0.319 | 94 |
| 0.945 | 0.563 | 0.416 | 0.336 | 92 |
| 0.206 | 0.94  | 0.782 | 0.766 | 65 |
| 0.018 | 0.846 | 0.621 | 0.686 | 45 |
| 0.202 | 0.823 | 0.617 | 0.616 | 43 |
| 0.018 | 0.754 | 0.693 | 0.677 | 36 |
| 0.306 | 0.736 | 0.595 | 0.631 | 41 |
| 0.21  | 0.945 | 0.806 | 0.76  | 58 |
| 0.102 | 0.81  | 0.718 | 0.746 | 30 |
| 0.151 | 0.805 | 0.594 | 0.626 | 90 |



|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.066 | 0.651 | 0.58  | 0.599 | 37 |
| 0.019 | 0.619 | 0.798 | 0.785 | 26 |
| 0.01  | 0.601 | 0.439 | 0.591 | 20 |
| 0.034 | 0.78  | 0.543 | 0.615 | 80 |
| 0.043 | 0.943 | 0.799 | 0.915 | 56 |
| 0.314 | 0.438 | 0.557 | 0.493 | 95 |
| 0.738 | 0.694 | 0.443 | 0.389 | 92 |
| 0.646 | 0.557 | 0.419 | 0.315 | 89 |
| 0.361 | 0.757 | 0.42  | 0.5   | 94 |
| 0.576 | 0.447 | 0.44  | 0.465 | 92 |
| 0.561 | 0.762 | 0.432 | 0.534 | 89 |
| 0.913 | 0.758 | 0.584 | 0.603 | 89 |
| 0.665 | 0.462 | 0.561 | 0.506 | 92 |
| 0.589 | 0.669 | 0.431 | 0.476 | 92 |
| 0.657 | 0.58  | 0.405 | 0.384 | 93 |
| 0.307 | 0.805 | 0.568 | 0.438 | 88 |
| 0.121 | 0.846 | 0.692 | 0.638 | 69 |
| 0.062 | 0.787 | 0.689 | 0.698 | 43 |
| 0.495 | 0.871 | 0.741 | 0.597 | 75 |
| 0.719 | 0.706 | 0.44  | 0.351 | 88 |
| 0.295 | 0.805 | 0.568 | 0.473 | 89 |
| 0.169 | 0.913 | 0.763 | 0.836 | 47 |
| 0.013 | 0.763 | 0.636 | 0.62  | 38 |
| 0.185 | 0.833 | 0.699 | 0.677 | 75 |
| 0.097 | 0.877 | 0.766 | 0.832 | 60 |
| 0.838 | 0.78  | 0.47  | 0.297 | 92 |
| 0.442 | 0.818 | 0.731 | 0.699 | 62 |
| 0.088 | 0.805 | 0.594 | 0.674 | 80 |
| 0.076 | 0.946 | 0.804 | 0.919 | 50 |
| 0.375 | 0.727 | 0.645 | 0.526 | 79 |
| 0.104 | 0.492 | 0.528 | 0.492 | 90 |
| 0.174 | 0.607 | 0.542 | 0.467 | 89 |
| 0.646 | 0.832 | 0.685 | 0.564 | 79 |
| 0.101 | 0.761 | 0.718 | 0.554 | 71 |
| 0.076 | 0.762 | 0.588 | 0.46  | 71 |
| 0.038 | 0.551 | 0.511 | 0.568 | 46 |
| 0.076 | 0.762 | 0.588 | 0.46  | 68 |
| 0.544 | 0.877 | 0.709 | 0.539 | 76 |
| 0.272 | 0.819 | 0.685 | 0.704 | 64 |
| 0.476 | 0.263 | 0.494 | 0.287 | 77 |
| 0.419 | 0.472 | 0.441 | 0.462 | 88 |

|        | <b>Metabolites after MDS using CDK (165) (used for MDS using ADMET)</b> |  |       |       |     |
|--------|---|--|-------|-------|-----|
| Pgp-In | HIA   |  | F20%  | F30%  | PPB |
| 0.122  | 0.877   |  | 0.834 | 0.819 | 67  |
| 0.949  | 0.791   |  | 0.348 | 0.315 | 93  |
| 0.685  | 0.66  |  | 0.437 | 0.357 | 93  |
| 0.593  | 0.788   |  | 0.455 | 0.415 | 90  |
| 0.637  | 0.783   |  | 0.354 | 0.36  | 92  |
| 0.456  | 0.945   |  | 0.806 | 0.829 | 66  |
| 0.166  | 0.614   |  | 0.633 | 0.59  | 74  |
| 0.778  | 0.625   |  | 0.265 | 0.373 | 92  |
| 0.774  | 0.528   |  | 0.387 | 0.385 | 88  |
| 0.117  | 0.689   |  | 0.661 | 0.607 | 76  |
| 0.925  | 0.586   |  | 0.276 | 0.37  | 91  |
| 0.538  | 0.668   |  | 0.459 | 0.359 | 89  |
| 0.72   | 0.659   |  | 0.376 | 0.292 | 91  |
| 0.61   | 0.639   |  | 0.36  | 0.314 | 92  |
| 0.831  | 0.822   |  | 0.214 | 0.378 | 93  |
| 0.79   | 0.736   |  | 0.385 | 0.307 | 93  |
| 0.66   | 0.75  |  | 0.404 | 0.345 | 90  |
| 0.389  | 0.818   |  | 0.553 | 0.64  | 72  |
| 0.905  | 0.676   |  | 0.459 | 0.408 | 93  |
| 0.848  | 0.773   |  | 0.358 | 0.235 | 94  |
| 0.898  | 0.802   |  | 0.365 | 0.247 | 95  |
| 0.693  | 0.781   |  | 0.375 | 0.326 | 94  |
| 0.838  | 0.78  |  | 0.47  | 0.297 | 92  |
| 0.745  | 0.761   |  | 0.348 | 0.279 | 94  |
| 0.7    | 0.655   |  | 0.382 | 0.341 | 94  |
| 0.7    | 0.583   |  | 0.399 | 0.267 | 93  |
| 0.839  | 0.636   |  | 0.442 | 0.431 | 89  |
| 0.854  | 0.801   |  | 0.327 | 0.319 | 95  |
| 0.664  | 0.706   |  | 0.44  | 0.344 | 88  |
| 0.774  | 0.528   |  | 0.387 | 0.385 | 88  |
| 0.088  | 0.76  |  | 0.453 | 0.455 | 67  |
| 0.203  | 0.863   |  | 0.65  | 0.48  | 84  |
| 0.307  | 0.805   |  | 0.568 | 0.396 | 88  |
| 0.205  | 0.93  |  | 0.803 | 0.734 | 59  |
| 0.904  | 0.529   |  | 0.412 | 0.442 | 91  |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.44  | 0.846 | 0.738 | 0.65  | 67 |
| 0.637 | 0.789 | 0.438 | 0.384 | 95 |
| 0.129 | 0.617 | 0.581 | 0.535 | 90 |
| 0.169 | 0.618 | 0.557 | 0.617 | 88 |
| 0.088 | 0.76  | 0.453 | 0.455 | 67 |
| 0.526 | 0.683 | 0.412 | 0.424 | 92 |
| 0.523 | 0.766 | 0.454 | 0.453 | 93 |
| 0.699 | 0.612 | 0.406 | 0.451 | 85 |
| 0.848 | 0.71  | 0.449 | 0.34  | 93 |
| 0.923 | 0.797 | 0.438 | 0.383 | 93 |
| 0.76  | 0.829 | 0.258 | 0.386 | 94 |
| 0.693 | 0.58  | 0.352 | 0.413 | 92 |
| 0.628 | 0.827 | 0.32  | 0.472 | 92 |
| 0.568 | 0.574 | 0.39  | 0.491 | 92 |
| 0.875 | 0.832 | 0.515 | 0.387 | 90 |
| 0.936 | 0.802 | 0.586 | 0.363 | 91 |
| 0.702 | 0.792 | 0.363 | 0.349 | 95 |
| 0.658 | 0.567 | 0.436 | 0.361 | 93 |
| 0.551 | 0.788 | 0.409 | 0.463 | 90 |
| 0.858 | 0.703 | 0.467 | 0.292 | 88 |
| 0.941 | 0.776 | 0.489 | 0.296 | 93 |
| 0.433 | 0.697 | 0.549 | 0.457 | 86 |
| 0.756 | 0.698 | 0.515 | 0.4   | 88 |
| 0.601 | 0.57  | 0.412 | 0.349 | 89 |
| 0.675 | 0.772 | 0.416 | 0.36  | 94 |
| 0.757 | 0.82  | 0.43  | 0.402 | 92 |
| 0.879 | 0.78  | 0.449 | 0.403 | 92 |
| 0.749 | 0.795 | 0.665 | 0.34  | 91 |
| 0.492 | 0.706 | 0.44  | 0.452 | 88 |
| 0.569 | 0.791 | 0.48  | 0.423 | 92 |
| 0.665 | 0.706 | 0.44  | 0.377 | 89 |
| 0.723 | 0.691 | 0.467 | 0.349 | 88 |
| 0.561 | 0.642 | 0.544 | 0.408 | 87 |
| 0.965 | 0.776 | 0.447 | 0.391 | 93 |
| 0.765 | 0.807 | 0.327 | 0.326 | 93 |
| 0.5   | 0.77  | 0.444 | 0.401 | 90 |
| 0.759 | 0.792 | 0.408 | 0.356 | 93 |
| 0.212 | 0.759 | 0.444 | 0.406 | 81 |
| 0.62  | 0.829 | 0.385 | 0.425 | 90 |
| 0.58  | 0.828 | 0.534 | 0.564 | 72 |
| 0.311 | 0.782 | 0.443 | 0.507 | 80 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.248 | 0.587 | 0.507 | 0.443 | 83 |
| 0.829 | 0.806 | 0.513 | 0.51  | 90 |
| 0.098 | 0.796 | 0.523 | 0.491 | 70 |
| 0.644 | 0.726 | 0.412 | 0.403 | 94 |
| 0.626 | 0.78  | 0.417 | 0.397 | 92 |
| 0.444 | 0.6   | 0.505 | 0.603 | 62 |
| 0.411 | 0.783 | 0.474 | 0.478 | 78 |
| 0.856 | 0.709 | 0.538 | 0.527 | 96 |
| 0.154 | 0.839 | 0.395 | 0.653 | 59 |
| 0.385 | 0.7   | 0.498 | 0.333 | 73 |
| 0.467 | 0.7   | 0.498 | 0.485 | 69 |
| 0.814 | 0.657 | 0.431 | 0.329 | 90 |
| 0.85  | 0.667 | 0.441 | 0.323 | 89 |
| 0.923 | 0.797 | 0.438 | 0.383 | 93 |
| 0.811 | 0.835 | 0.359 | 0.401 | 93 |
| 0.16  | 0.929 | 0.808 | 0.828 | 60 |
| 0.506 | 0.6   | 0.448 | 0.358 | 89 |
| 0.621 | 0.764 | 0.584 | 0.512 | 93 |
| 0.867 | 0.771 | 0.464 | 0.493 | 91 |
| 0.713 | 0.821 | 0.385 | 0.419 | 91 |
| 0.596 | 0.838 | 0.3   | 0.457 | 94 |
| 0.735 | 0.838 | 0.3   | 0.343 | 96 |
| 0.845 | 0.82  | 0.206 | 0.288 | 97 |
| 0.889 | 0.577 | 0.345 | 0.251 | 94 |
| 0.867 | 0.818 | 0.275 | 0.274 | 94 |
| 0.887 | 0.557 | 0.417 | 0.332 | 91 |
| 0.918 | 0.794 | 0.337 | 0.316 | 94 |
| 0.921 | 0.818 | 0.275 | 0.191 | 96 |
| 0.631 | 0.811 | 0.363 | 0.373 | 82 |
| 0.889 | 0.577 | 0.345 | 0.251 | 94 |
| 0.807 | 0.651 | 0.327 | 0.252 | 94 |
| 0.886 | 0.571 | 0.385 | 0.255 | 93 |
| 0.24  | 0.633 | 0.529 | 0.522 | 87 |
| 0.592 | 0.653 | 0.502 | 0.414 | 83 |
| 0.507 | 0.669 | 0.57  | 0.482 | 65 |
| 0.451 | 0.787 | 0.711 | 0.542 | 65 |
| 0.904 | 0.662 | 0.388 | 0.421 | 86 |
| 0.369 | 0.83  | 0.721 | 0.586 | 57 |
| 0.202 | 0.769 | 0.648 | 0.538 | 63 |
| 0.611 | 0.773 | 0.717 | 0.522 | 73 |
| 0.139 | 0.841 | 0.643 | 0.715 | 65 |

|       |       |       |       |    |
|-------|-------|-------|-------|----|
| 0.636 | 0.719 | 0.472 | 0.341 | 91 |
| 0.653 | 0.716 | 0.479 | 0.396 | 91 |
| 0.738 | 0.698 | 0.459 | 0.315 | 90 |
| 0.345 | 0.619 | 0.494 | 0.466 | 89 |
| 0.608 | 0.691 | 0.443 | 0.468 | 88 |
| 0.843 | 0.83  | 0.342 | 0.288 | 95 |
| 0.247 | 0.741 | 0.443 | 0.257 | 56 |
| 0.097 | 0.724 | 0.559 | 0.609 | 51 |
| 0.515 | 0.662 | 0.453 | 0.422 | 89 |
| 0.124 | 0.924 | 0.798 | 0.784 | 60 |
| 0.674 | 0.608 | 0.393 | 0.291 | 92 |
| 0.152 | 0.779 | 0.662 | 0.605 | 72 |
| 0.309 | 0.81  | 0.605 | 0.583 | 48 |
| 0.544 | 0.709 | 0.603 | 0.427 | 75 |
| 0.316 | 0.794 | 0.453 | 0.312 | 86 |
| 0.696 | 0.682 | 0.438 | 0.512 | 89 |
| 0.749 | 0.655 | 0.436 | 0.491 | 90 |
| 0.813 | 0.681 | 0.443 | 0.438 | 89 |
| 0.85  | 0.689 | 0.519 | 0.367 | 89 |
| 0.349 | 0.775 | 0.695 | 0.754 | 70 |
| 0.1   | 0.78  | 0.543 | 0.537 | 80 |
| 0.854 | 0.698 | 0.515 | 0.339 | 88 |
| 0.759 | 0.792 | 0.408 | 0.356 | 93 |
| 0.5   | 0.77  | 0.444 | 0.401 | 90 |
| 0.443 | 0.646 | 0.584 | 0.529 | 86 |
| 0.617 | 0.577 | 0.561 | 0.425 | 91 |
| 0.275 | 0.794 | 0.453 | 0.264 | 85 |
| 0.879 | 0.78  | 0.449 | 0.403 | 92 |
| 0.943 | 0.754 | 0.466 | 0.285 | 89 |
| 0.935 | 0.754 | 0.466 | 0.315 | 91 |
| 0.316 | 0.839 | 0.765 | 0.616 | 49 |
| 0.348 | 0.855 | 0.687 | 0.633 | 70 |
| 0.907 | 0.801 | 0.323 | 0.319 | 94 |
| 0.945 | 0.563 | 0.416 | 0.336 | 92 |
| 0.151 | 0.805 | 0.594 | 0.626 | 90 |
| 0.738 | 0.694 | 0.443 | 0.389 | 92 |
| 0.646 | 0.557 | 0.419 | 0.315 | 89 |
| 0.361 | 0.757 | 0.42  | 0.5   | 94 |
| 0.576 | 0.447 | 0.44  | 0.465 | 92 |
| 0.561 | 0.762 | 0.432 | 0.534 | 89 |
| 0.665 | 0.462 | 0.561 | 0.506 | 92 |

|           |   |       |              |                |              |  |
|-----------|---|-------|--------------|----------------|--------------|--|
| 0.589     |   | 0.669 | 0.431        | 0.476          | 92           |  |
| 0.295     |   | 0.805 | 0.568        | 0.473          | 89           |  |
| 0.838     |   | 0.78  | 0.47         | 0.297          | 92           |  |
| 0.442     |   | 0.818 | 0.731        | 0.699          | 62           |  |
| 0.088     |   | 0.805 | 0.594        | 0.674          | 80           |  |
| 0.174     |   | 0.607 | 0.542        | 0.467          | 89           |  |
| 0.272     |   | 0.819 | 0.685        | 0.704          | 64           |  |
|           |   |       |              |                |              |  |
|           | <b>468 Metabolites and positive &amp; negative controls</b> |       |              |                |              |  |
|           |   |       |              |                |              |  |
| <b>VD</b> | <b>BBB</b>  |       | <b>A2-In</b> | <b>A2-Subs</b> | <b>A4-In</b> |  |
| 0.963     |   | 0.962 | 0.072        | 0.384          | 0.34         |  |
| 1.001     |   | 0.984 | 0.031        | 0.483          | 0.108        |  |
| 0.952     |   | 0.962 | 0.095        | 0.297          | 0.38         |  |
| 0.85      |   | 0.981 | 0.078        | 0.33           | 0.063        |  |
| 1.004     |   | 0.978 | 0.014        | 0.505          | 0.016        |  |
| 0.521     |   | 0.811 | 0.068        | 0.466          | 0.253        |  |
| 0.838     |   | 0.972 | 0.097        | 0.42           | 0.137        |  |
| 0.617     |   | 0.962 | 0.036        | 0.146          | 0.133        |  |
| 0.195     |   | 0.899 | 0.672        | 0.558          | 0.619        |  |
| 0.417     |   | 0.97  | 0.145        | 0.475          | 0.164        |  |
| 1.198     |   | 0.994 | 0.037        | 0.429          | 0.051        |  |
| 0.372     |   | 0.89  | 0.039        | 0.443          | 0.089        |  |
| 1.089     |   | 0.995 | 0.054        | 0.322          | 0.037        |  |
| 0.784     |   | 0.984 | 0.049        | 0.476          | 0.246        |  |
| 0.725     |   | 0.882 | 0.285        | 0.527          | 0.33         |  |
| 1.362     |   | 0.961 | 0.647        | 0.592          | 0.122        |  |
| 0.242     |   | 0.771 | 0.028        | 0.362          | 0.121        |  |
| -0.34     |   | 0.962 | 0.039        | 0.718          | 0            |  |
| 1.276     |   | 0.965 | 0.778        | 0.65           | 0.186        |  |
| 0.485     |   | 0.828 | 0.427        | 0.552          | 0.709        |  |
| 1.112     |   | 0.969 | 0.064        | 0.332          | 0.342        |  |
| 0.32      |   | 0.962 | 0.048        | 0.398          | 0.055        |  |
| 0.663     |   | 0.992 | 0.055        | 0.442          | 0.042        |  |
| 1.11      |   | 0.995 | 0.043        | 0.432          | 0.037        |  |
| 0.932     |   | 0.99  | 0.037        | 0.198          | 0.022        |  |
| 1.308     |   | 0.962 | 0.056        | 0.569          | 0.014        |  |
| -0.096    |   | 0.976 | 0.047        | 0.541          | 0.022        |  |
| 0.784     |   | 0.984 | 0.049        | 0.476          | 0.246        |  |
| 0.757     |   | 0.994 | 0.104        | 0.369          | 0.014        |  |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.917  | 0.984 | 0.035 | 0.316 | 0.044 |
| 0.349  | 0.862 | 0.049 | 0.372 | 0.127 |
| 0.872  | 0.994 | 0.035 | 0.444 | 0.027 |
| 0.719  | 0.987 | 0.03  | 0.318 | 0.02  |
| 0.497  | 0.955 | 0.134 | 0.682 | 0.203 |
| 1.643  | 0.962 | 0.193 | 0.608 | 0.034 |
| 0.463  | 0.995 | 0.436 | 0.643 | 0.209 |
| 1.004  | 0.978 | 0.014 | 0.505 | 0.016 |
| 0.992  | 0.985 | 0.021 | 0.407 | 0.009 |
| 1.096  | 0.962 | 0.107 | 0.546 | 0.066 |
| 0.917  | 0.884 | 0.04  | 0.605 | 0.081 |
| 0.709  | 0.97  | 0.128 | 0.51  | 0.093 |
| 1.281  | 0.98  | 0.087 | 0.4   | 0.17  |
| 1.03   | 0.97  | 0.073 | 0.404 | 0.304 |
| 0.84   | 0.941 | 0.041 | 0.328 | 0.085 |
| 0.822  | 0.985 | 0.264 | 0.373 | 0.077 |
| 1.22   | 0.962 | 0.027 | 0.44  | 0.264 |
| 1.03   | 0.99  | 0.023 | 0.415 | 0.04  |
| 0.877  | 0.978 | 0.076 | 0.484 | 0.003 |
| 1.087  | 1     | 0.034 | 0.716 | 0.069 |
| 0.81   | 0.955 | 0.052 | 0.404 | 0.028 |
| 0.195  | 0.985 | 0.028 | 0.288 | 0.046 |
| 0.956  | 0.976 | 0.072 | 0.408 | 0.32  |
| 1.074  | 0.989 | 0.062 | 0.438 | 0.074 |
| 1.231  | 1     | 0.092 | 0.531 | 0.085 |
| 0.879  | 0.973 | 0.103 | 0.5   | 0.135 |
| 1.18   | 0.967 | 0.089 | 0.355 | 0.118 |
| 1.042  | 0.985 | 0.093 | 0.429 | 0.012 |
| 0.585  | 0.98  | 0.526 | 0.607 | 0.585 |
| 1.276  | 0.974 | 0.038 | 0.56  | 0.323 |
| 1.33   | 0.98  | 0.339 | 0.698 | 0.458 |
| 0.418  | 0.957 | 0.811 | 0.601 | 0.766 |
| 0.315  | 0.991 | 0.601 | 0.68  | 0.07  |
| 0.296  | 0.772 | 0.065 | 0.44  | 0.039 |
| 0.088  | 0.97  | 0.307 | 0.326 | 0.158 |
| -0.282 | 0.965 | 0.705 | 0.297 | 0.139 |
| -0.06  | 0.97  | 0.51  | 0.332 | 0.209 |
| 0.017  | 0.97  | 0.51  | 0.332 | 0.209 |
| 0.017  | 0.962 | 0.636 | 0.356 | 0.129 |
| -0.265 | 0.842 | 0.485 | 0.422 | 0.811 |
| -0.256 | 0.842 | 0.681 | 0.46  | 0.84  |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| -0.137 | 0.986 | 0.968 | 0.215 | 0.061 |
| -0.082 | 0.978 | 0.832 | 0.337 | 0.116 |
| 0.817  | 0.996 | 0.169 | 0.85  | 0.022 |
| -0.624 | 0.986 | 0.068 | 0.304 | 0     |
| -0.693 | 0.962 | 0.013 | 0.186 | 0.011 |
| 0.025  | 0.428 | 0.001 | 0.444 | 0     |
| -0.5   | 0.787 | 0     | 0.082 | 0     |
| -0.722 | 0.882 | 0.001 | 0.024 | 0.001 |
| -0.548 | 0.989 | 0.004 | 0.128 | 0.015 |
| -0.673 | 0.946 | 0.002 | 0.102 | 0.001 |
| -0.738 | 0.958 | 0.013 | 0.294 | 0.001 |
| -0.667 | 0.988 | 0.007 | 0.034 | 0.001 |
| -0.578 | 0.822 | 0.005 | 0.092 | 0.002 |
| -0.594 | 0.958 | 0.004 | 0.024 | 0.002 |
| -0.643 | 0.995 | 0.009 | 0.077 | 0.002 |
| -0.741 | 0.98  | 0.092 | 0.348 | 0.001 |
| -0.664 | 0.23  | 0.168 | 0.38  | 0.286 |
| -0.134 | 0.576 | 0.34  | 0.401 | 0.119 |
| -0.575 | 1     | 0.028 | 0.151 | 0.027 |
| -0.473 | 0.856 | 0.008 | 0.016 | 0.011 |
| -0.599 | 0.973 | 0.002 | 0.058 | 0.001 |
| 1.494  | 0.878 | 0.273 | 0.37  | 0.364 |
| -0.034 | 0.949 | 0.025 | 0.514 | 0.001 |
| 0.986  | 0.997 | 0.793 | 0.7   | 0.007 |
| 0.956  | 1     | 0.87  | 0.674 | 0.005 |
| -0.242 | 0.974 | 0.018 | 0.438 | 0.001 |
| -0.14  | 1     | 0.956 | 0.726 | 0.005 |
| 0.952  | 0.997 | 0.317 | 0.598 | 0.002 |
| -0.112 | 0.941 | 0.137 | 0.462 | 0.002 |
| -0.002 | 0.925 | 0.167 | 0.4   | 0.012 |
| -0.043 | 0.941 | 0.191 | 0.412 | 0.004 |
| 0.224  | 0.941 | 0.191 | 0.412 | 0.004 |
| 0.415  | 0.99  | 0.006 | 0.47  | 0.011 |
| 0.35   | 0.978 | 0.01  | 0.572 | 0.001 |
| 0.284  | 0.944 | 0.138 | 0.408 | 0.013 |
| 0.884  | 0.705 | 0.168 | 0.38  | 0.024 |
| 0.511  | 1     | 0.644 | 0.546 | 0.091 |
| 0.273  | 1     | 0.37  | 0.636 | 0.001 |
| -0.235 | 0.989 | 0.19  | 0.41  | 0     |
| -0.103 | 0.944 | 0.167 | 0.382 | 0.005 |
| -0.367 | 0.995 | 0.729 | 0.788 | 0.006 |



|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.745  | 0.996 | 0.484 | 0.682 | 0.03  |
| -0.31  | 0.933 | 0.033 | 0.464 | 0.002 |
| 0.062  | 0.863 | 0.098 | 0.406 | 0.01  |
| 0.768  | 1     | 0.899 | 0.64  | 0.047 |
| 0.321  | 0.892 | 0.279 | 0.416 | 0.712 |
| -0.144 | 0.579 | 0.185 | 0.374 | 0.164 |
| -0.07  | 0.992 | 0.768 | 0.342 | 0.003 |
| -0.303 | 0.942 | 0.473 | 0.622 | 0.003 |
| 0.432  | 0.994 | 0.075 | 0.636 | 0.017 |
| 0.142  | 0.955 | 0.018 | 0.518 | 0.006 |
| 0.722  | 0.988 | 0.989 | 0.586 | 0.029 |
| 0.05   | 0.993 | 0.233 | 0.599 | 0.011 |
| 0.145  | 0.984 | 0.048 | 0.376 | 0.005 |
| 0.239  | 0.995 | 0.036 | 0.518 | 0.003 |
| -0.491 | 0.921 | 0.103 | 0.44  | 0.011 |
| -0.006 | 0.989 | 0.782 | 0.558 | 0.004 |
| -0.044 | 0.918 | 0.408 | 0.73  | 0.28  |
| -0.634 | 0.781 | 0.796 | 0.586 | 0.041 |
| 0.746  | 0.824 | 0.113 | 0.402 | 0.286 |
| 0.383  | 0.895 | 0.63  | 0.488 | 0.027 |
| 0.374  | 0.99  | 0.045 | 0.546 | 0.019 |
| 0.751  | 0.996 | 0.927 | 0.58  | 0.102 |
| 1.001  | 1     | 0.924 | 0.668 | 0.038 |
| 0.421  | 0.695 | 0.166 | 0.379 | 0.467 |
| 0.258  | 0.956 | 0.757 | 0.715 | 0.207 |
| 0.07   | 0.981 | 0.914 | 0.56  | 0.024 |
| 0.302  | 0.978 | 0.176 | 0.45  | 0.011 |
| -0.158 | 0.995 | 0.193 | 0.652 | 0.003 |
| 0.237  | 0.968 | 0.03  | 0.566 | 0.002 |
| 0.042  | 0.854 | 0.313 | 0.552 | 0.155 |
| -0.157 | 0.939 | 0.026 | 0.5   | 0.002 |
| 0.324  | 0.871 | 0.773 | 0.554 | 0.028 |
| -0.152 | 0.923 | 0.956 | 0.528 | 0.284 |
| -0.017 | 0.694 | 0.439 | 0.318 | 0.5   |
| -0.144 | 0.578 | 0.658 | 0.306 | 0.302 |
| 0.541  | 0.997 | 0.022 | 0.554 | 0.051 |
| -0.059 | 0.963 | 0.888 | 0.536 | 0.042 |
| 0.506  | 0.89  | 0.584 | 0.504 | 0.086 |
| -0.365 | 0.918 | 0.983 | 0.732 | 0.175 |
| 0.473  | 0.989 | 0.219 | 0.38  | 0.034 |
| 0.049  | 0.981 | 0.653 | 0.702 | 0.107 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| -0.05  | 0.828 | 0.523 | 0.424 | 0.039 |
| 0.801  | 0.755 | 0.199 | 0.498 | 0.103 |
| -0.391 | 0.979 | 0.674 | 0.672 | 0.646 |
| -0.152 | 0.714 | 0.221 | 0.414 | 0.681 |
| -0.042 | 0.574 | 0.384 | 0.487 | 0.804 |
| -0.241 | 0.773 | 0.358 | 0.408 | 0.271 |
| -0.175 | 0.635 | 0.615 | 0.34  | 0.354 |
| 0.473  | 0.986 | 0.732 | 0.592 | 0.019 |
| -0.131 | 0.29  | 0.246 | 0.352 | 0.216 |
| 0.475  | 0.606 | 0.782 | 0.446 | 0.467 |
| 0.94   | 0.997 | 0.914 | 0.538 | 0.023 |
| -0.537 | 1     | 0.05  | 0.5   | 0.007 |
| -0.372 | 0.162 | 0.086 | 0.346 | 0.174 |
| -0.372 | 0.162 | 0.086 | 0.346 | 0.174 |
| -0.289 | 0.517 | 0.089 | 0.444 | 0.438 |
| -0.379 | 0.634 | 0.224 | 0.44  | 0.299 |
| -0.13  | 0.414 | 0.336 | 0.45  | 0.83  |
| -0.542 | 0.297 | 0.82  | 0.354 | 0.541 |
| 0.501  | 0.692 | 0.257 | 0.384 | 0.588 |
| 1.135  | 0.81  | 0.528 | 0.392 | 0.515 |
| 0.686  | 0.831 | 0.228 | 0.364 | 0.443 |
| 0.622  | 0.784 | 0.451 | 0.464 | 0.572 |
| 0.689  | 0.99  | 0.338 | 0.678 | 0.201 |
| -0.425 | 0.587 | 0.216 | 0.404 | 0.345 |
| 0.44   | 0.65  | 0.206 | 0.378 | 0.59  |
| -0.536 | 0.29  | 0.376 | 0.392 | 0.344 |
| 0.704  | 0.805 | 0.671 | 0.442 | 0.537 |
| 0.926  | 0.842 | 0.164 | 0.328 | 0.357 |
| 0.592  | 0.903 | 0.132 | 0.424 | 0.306 |
| 0.824  | 0.774 | 0.223 | 0.398 | 0.431 |
| 0.142  | 0.903 | 0.411 | 0.732 | 0.253 |
| 0.952  | 0.899 | 0.234 | 0.412 | 0.53  |
| 0.85   | 0.814 | 0.205 | 0.354 | 0.332 |
| 0.579  | 0.71  | 0.17  | 0.41  | 0.564 |
| 0.122  | 0.623 | 0.161 | 0.447 | 0.667 |
| 0.762  | 0.783 | 0.176 | 0.446 | 0.53  |
| 0.404  | 0.75  | 0.295 | 0.46  | 0.542 |
| -0.314 | 0.519 | 0.206 | 0.351 | 0.48  |
| -0.303 | 0.433 | 0.197 | 0.303 | 0.395 |
| 0.498  | 0.618 | 0.567 | 0.274 | 0.395 |
| -0.352 | 0.982 | 0.115 | 0.536 | 0.004 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| -0.562 | 0.989 | 0.032 | 0.28  | 0     |
| -0.639 | 0.96  | 0.011 | 0.168 | 0     |
| -0.263 | 0.991 | 0.03  | 0.368 | 0     |
| -0.144 | 0.578 | 0.658 | 0.306 | 0.302 |
| -0.241 | 0.773 | 0.358 | 0.408 | 0.271 |
| -0.266 | 0.979 | 0.119 | 0.546 | 0.017 |
| -0.092 | 0.995 | 0.634 | 0.46  | 0.001 |
| 0.584  | 0.984 | 0.213 | 0.5   | 0.112 |
| 0.403  | 0.858 | 0.064 | 0.262 | 0.06  |
| 0.425  | 0.976 | 0.28  | 0.45  | 0.081 |
| 0.489  | 0.911 | 0.052 | 0.544 | 0.028 |
| -0.264 | 0.586 | 0.178 | 0.385 | 0.652 |
| 0.659  | 0.878 | 0.211 | 0.402 | 0.063 |
| 0.643  | 0.968 | 0.048 | 0.544 | 0.061 |
| 0.465  | 0.968 | 0.03  | 0.326 | 0.061 |
| 0.661  | 0.968 | 0.082 | 0.488 | 0.057 |
| 0.648  | 0.936 | 0.097 | 0.514 | 0.071 |
| 0.46   | 0.97  | 0.032 | 0.39  | 0.122 |
| 0.428  | 0.98  | 0.291 | 0.446 | 0.017 |
| 0.634  | 0.982 | 0.275 | 0.492 | 0.07  |
| 0.453  | 0.995 | 0.131 | 0.604 | 0.048 |
| 0.397  | 0.973 | 0.018 | 0.472 | 0.039 |
| -0.79  | 0.891 | 0.47  | 0.154 | 0.006 |
| 0.649  | 0.997 | 0.052 | 0.428 | 0.125 |
| 0.022  | 0.975 | 0.5   | 0.54  | 0.019 |
| 0.438  | 0.96  | 0.037 | 0.599 | 0.008 |
| 0.581  | 0.997 | 0.043 | 0.598 | 0.051 |
| 0.42   | 0.986 | 0.059 | 0.506 | 0.04  |
| -0.236 | 0.781 | 0.24  | 0.393 | 0.677 |
| 0.423  | 0.995 | 0.187 | 0.618 | 0.01  |
| 0.311  | 0.965 | 0.105 | 0.402 | 0.022 |
| 0.548  | 0.981 | 0.035 | 0.57  | 0.007 |
| 0.465  | 0.968 | 0.03  | 0.326 | 0.061 |
| 0.661  | 0.968 | 0.082 | 0.488 | 0.057 |
| -0.767 | 0.307 | 0.162 | 0.394 | 0.383 |
| -0.502 | 0.157 | 0.209 | 0.326 | 0.229 |
| -0.29  | 0.268 | 0.308 | 0.334 | 0.202 |
| -0.287 | 0.243 | 0.254 | 0.362 | 0.341 |
| 0.438  | 0.986 | 0.89  | 0.668 | 0.185 |
| 0.47   | 0.932 | 0.225 | 0.412 | 0.34  |
| 0.131  | 0.946 | 0.124 | 0.402 | 0.322 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| -0.109 | 0.154 | 0.046 | 0.26  | 0.134 |
| -0.441 | 0.556 | 0.055 | 0.28  | 0.119 |
| -0.578 | 0.464 | 0.987 | 0.408 | 0.931 |
| -0.184 | 0.422 | 0.644 | 0.484 | 0.704 |
| 0.042  | 0.817 | 0.5   | 0.59  | 0.343 |
| -0.217 | 0.315 | 0.288 | 0.311 | 0.344 |
| -0.202 | 0.662 | 0.164 | 0.365 | 0.104 |
| 0.633  | 0.989 | 0.09  | 0.641 | 0.084 |
| 0.584  | 0.984 | 0.213 | 0.5   | 0.112 |
| -0.141 | 0.987 | 0.842 | 0.58  | 0.006 |
| 0.189  | 0.985 | 0.878 | 0.608 | 0.005 |
| 0.259  | 0.989 | 0.361 | 0.346 | 0.004 |
| 1.437  | 0.983 | 0.345 | 0.674 | 0.072 |
| -0.42  | 0.992 | 0.542 | 0.293 | 0.005 |
| -0.042 | 0.993 | 0.16  | 0.766 | 0.002 |
| -0.391 | 0.978 | 0.768 | 0.486 | 0.024 |
| 0.345  | 0.985 | 0.958 | 0.542 | 0.039 |
| 0.659  | 0.878 | 0.211 | 0.402 | 0.063 |
| 0.603  | 0.988 | 0.093 | 0.388 | 0.044 |
| 0.432  | 0.99  | 0.15  | 0.524 | 0.068 |
| 0.589  | 0.975 | 0.049 | 0.502 | 0.086 |
| 0.445  | 0.98  | 0.048 | 0.38  | 0.06  |
| 0.376  | 0.981 | 0.028 | 0.402 | 0.118 |
| 0.31   | 0.972 | 0.017 | 0.292 | 0.006 |
| -0.152 | 0.847 | 0.25  | 0.478 | 0.71  |
| 0.485  | 0.971 | 0.381 | 0.806 | 0.028 |
| 0.398  | 0.949 | 0.134 | 0.47  | 0.014 |
| 0.395  | 0.976 | 0.082 | 0.575 | 0.006 |
| 0.506  | 0.996 | 0.034 | 0.522 | 0.032 |
| 0.365  | 0.991 | 0.043 | 0.484 | 0.025 |
| -0.703 | 0.415 | 0.061 | 0.304 | 0.437 |
| 0.14   | 0.588 | 0.063 | 0.56  | 0.037 |
| 0.108  | 0.51  | 0.168 | 0.434 | 0.299 |
| -0.365 | 0.482 | 0.06  | 0.296 | 0.181 |
| 0.658  | 0.84  | 0.083 | 0.39  | 0.342 |
| 0.515  | 0.784 | 0.141 | 0.438 | 0.336 |
| 0.307  | 0.995 | 0.004 | 0.246 | 0.004 |
| -0.277 | 0.749 | 0.196 | 0.434 | 0.737 |
| 0.114  | 0.996 | 0.126 | 0.526 | 0.001 |
| -0.503 | 0.981 | 0.756 | 0.43  | 0.051 |
| -0.523 | 0.255 | 0.179 | 0.344 | 0.708 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.632  | 0.987 | 0.09  | 0.59  | 0.057 |
| 0.457  | 0.995 | 0.013 | 0.468 | 0.022 |
| 0.062  | 0.787 | 0.24  | 0.48  | 0.292 |
| 0.511  | 0.923 | 0.302 | 0.428 | 0.46  |
| 0.859  | 0.724 | 0.233 | 0.326 | 0.469 |
| -0.187 | 0.356 | 0.119 | 0.29  | 0.25  |
| 0.888  | 0.761 | 0.15  | 0.36  | 0.386 |
| -0.108 | 0.393 | 0.075 | 0.29  | 0.166 |
| 1.072  | 0.983 | 0.311 | 0.468 | 0.281 |
| 0.727  | 0.909 | 0.283 | 0.526 | 0.418 |
| 1.014  | 0.926 | 0.215 | 0.356 | 0.462 |
| -0.473 | 0.687 | 0.124 | 0.32  | 0.399 |
| 0.976  | 0.937 | 0.134 | 0.398 | 0.373 |
| 0.582  | 0.696 | 0.312 | 0.337 | 0.299 |
| -0.458 | 0.226 | 0.149 | 0.3   | 0.24  |
| 0.927  | 0.612 | 0.267 | 0.396 | 0.378 |
| 0.426  | 0.689 | 0.276 | 0.321 | 0.127 |
| 0.53   | 0.733 | 0.19  | 0.385 | 0.208 |
| -0.482 | 0.248 | 0.09  | 0.306 | 0.152 |
| -0.349 | 0.452 | 0.096 | 0.29  | 0.273 |
| -0.347 | 0.456 | 0.089 | 0.354 | 0.368 |
| 0.674  | 0.816 | 0.137 | 0.356 | 0.438 |
| -0.207 | 0.413 | 0.627 | 0.436 | 0.506 |
| 0.964  | 0.494 | 0.85  | 0.562 | 0.788 |
| 0.471  | 0.665 | 0.494 | 0.326 | 0.238 |
| -0.131 | 0.29  | 0.246 | 0.352 | 0.216 |
| -0.445 | 0.196 | 0.214 | 0.292 | 0.131 |
| 0.678  | 0.696 | 0.484 | 0.392 | 0.554 |
| 0.042  | 0.916 | 0.521 | 0.362 | 0.14  |
| 0.544  | 0.721 | 0.303 | 0.36  | 0.175 |
| -0.45  | 0.23  | 0.122 | 0.282 | 0.081 |
| 0.753  | 0.783 | 0.151 | 0.382 | 0.298 |
| 0.041  | 0.772 | 0.142 | 0.374 | 0.207 |
| 0.471  | 0.665 | 0.494 | 0.326 | 0.238 |
| -0.445 | 0.196 | 0.214 | 0.292 | 0.131 |
| 0.748  | 0.41  | 0.663 | 0.492 | 0.618 |
| 0.707  | 0.46  | 0.539 | 0.514 | 0.548 |
| 1.158  | 0.921 | 0.747 | 0.514 | 0.88  |
| 1.26   | 0.661 | 0.686 | 0.45  | 0.72  |
| 1.159  | 0.75  | 0.758 | 0.418 | 0.581 |
| 1.254  | 0.661 | 0.689 | 0.454 | 0.68  |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| -0.481 | 0.227 | 0.384 | 0.416 | 0.473 |
| 1.083  | 0.706 | 0.716 | 0.444 | 0.38  |
| 0.825  | 0.569 | 0.156 | 0.302 | 0.317 |
| -0.142 | 0.21  | 0.058 | 0.272 | 0.074 |
| 1.079  | 0.984 | 0.18  | 0.496 | 0.101 |
| 0.914  | 0.912 | 0.178 | 0.326 | 0.251 |
| -0.478 | 0.611 | 0.064 | 0.308 | 0.113 |
| 0.858  | 0.929 | 0.89  | 0.584 | 0.81  |
| 0.467  | 0.743 | 0.162 | 0.336 | 0.286 |
| 0.241  | 0.862 | 0.053 | 0.39  | 0.321 |
| -0.613 | 0.415 | 0.826 | 0.3   | 0.746 |
| -0.613 | 0.3   | 0.182 | 0.302 | 0.696 |
| -0.431 | 0.2   | 0.123 | 0.386 | 0.714 |
| -0.292 | 0.2   | 0.111 | 0.404 | 0.611 |
| 0.481  | 0.943 | 0.312 | 0.536 | 0.098 |
| 0.329  | 0.555 | 0.184 | 0.374 | 0.471 |
| 0.834  | 0.858 | 0.286 | 0.486 | 0.457 |
| 1.236  | 0.703 | 0.637 | 0.468 | 0.676 |
| -0.116 | 0.399 | 0.443 | 0.44  | 0.652 |
| -0.207 | 0.413 | 0.627 | 0.436 | 0.506 |
| -0.105 | 0.454 | 0.481 | 0.442 | 0.596 |
| -0.261 | 0.985 | 0.376 | 0.62  | 0.054 |
| 0.261  | 0.567 | 0.219 | 0.382 | 0.442 |
| 0.549  | 0.663 | 0.648 | 0.466 | 0.098 |
| 0.065  | 0.987 | 0.106 | 0.575 | 0.025 |
| -0.569 | 0.116 | 0.131 | 0.434 | 0.824 |
| 0.011  | 0.936 | 0.055 | 0.406 | 0.015 |
| 0.142  | 0.941 | 0.191 | 0.412 | 0.004 |
| 0.612  | 0.966 | 0.546 | 0.482 | 0.208 |
| -0.223 | 0.205 | 0.05  | 0.254 | 0.132 |
| -0.399 | 0.478 | 0.939 | 0.514 | 0.869 |
| 0.369  | 0.993 | 0.023 | 0.42  | 0.043 |
| 0.447  | 0.918 | 0.11  | 0.246 | 0.064 |
| 0.426  | 0.975 | 0.301 | 0.31  | 0.029 |
| 0.383  | 0.986 | 0.109 | 0.406 | 0.008 |
| 0.607  | 0.969 | 0.022 | 0.476 | 0.01  |
| -0.051 | 0.92  | 0.32  | 0.175 | 0.024 |
| -0.205 | 0.838 | 0.127 | 0.26  | 0.047 |
| -0.079 | 0.765 | 0.112 | 0.434 | 0.367 |
| -0.429 | 0.749 | 0.263 | 0.438 | 0.332 |
| 0.511  | 0.923 | 0.302 | 0.428 | 0.46  |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.587  | 0.574 | 0.154 | 0.302 | 0.554 |
| 0.605  | 0.994 | 0.133 | 0.77  | 0.048 |
| 0.259  | 0.951 | 0.538 | 0.639 | 0.044 |
| -0.22  | 0.213 | 0.069 | 0.274 | 0.212 |
| -0.159 | 0.476 | 0.07  | 0.322 | 0.053 |
| 0.052  | 0.98  | 0.831 | 0.336 | 0.033 |
| 0.978  | 0.683 | 0.634 | 0.436 | 0.401 |
| 0.566  | 0.645 | 0.487 | 0.45  | 0.543 |
| 0.794  | 0.447 | 0.802 | 0.496 | 0.644 |
| 532    | 0.997 | 0.078 | 0.538 | 0.059 |
| 1.171  | 0.828 | 0.22  | 0.47  | 0.231 |
| 1.274  | 0.81  | 0.307 | 0.434 | 0.323 |
| 1.458  | 0.913 | 0.281 | 0.412 | 0.415 |
| -0.164 | 0.531 | 0.161 | 0.334 | 0.291 |
| 1.301  | 0.893 | 0.194 | 0.406 | 0.264 |
| -0.21  | 0.627 | 0.126 | 0.386 | 0.353 |
| 1.115  | 0.91  | 0.202 | 0.448 | 0.43  |
| 1.388  | 0.878 | 0.257 | 0.382 | 0.302 |
| 1.058  | 0.857 | 0.188 | 0.348 | 0.138 |
| -0.164 | 0.531 | 0.161 | 0.334 | 0.291 |
| -0.195 | 0.506 | 0.148 | 0.286 | 0.246 |
| -0.17  | 0.531 | 0.15  | 0.332 | 0.242 |
| 0.484  | 0.958 | 0.055 | 0.606 | 0.038 |
| -0.725 | 0.162 | 0.228 | 0.292 | 0.109 |
| 0.56   | 0.652 | 0.565 | 0.38  | 0.088 |
| -0.073 | 0.317 | 0.319 | 0.336 | 0.095 |
| -0.144 | 0.302 | 0.137 | 0.346 | 0.716 |
| -0.261 | 0.517 | 0.214 | 0.376 | 0.55  |
| 0.131  | 0.615 | 0.187 | 0.346 | 0.699 |
| 0.037  | 0.594 | 0.129 | 0.412 | 0.467 |
| -0.262 | 0.978 | 0.011 | 0.29  | 0.002 |
| -0.443 | 0.995 | 0.98  | 0.641 | 0.022 |
| -0.499 | 0.994 | 0.991 | 0.578 | 0.006 |
| -0.024 | 0.993 | 0.136 | 0.322 | 0.035 |
| -0.427 | 0.973 | 0.014 | 0.552 | 0.002 |
| -0.225 | 0.99  | 0.104 | 0.598 | 0.004 |
| 0.33   | 0.994 | 0.593 | 0.356 | 0.005 |
| 1.239  | 0.981 | 0.29  | 0.887 | 0.114 |
| 0.984  | 0.997 | 0.838 | 0.558 | 0.005 |
| 0.711  | 0.989 | 0.968 | 0.752 | 0.033 |
| -0.2   | 0.867 | 0.179 | 0.421 | 0.706 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.492  | 0.996 | 0.843 | 0.61  | 0.295 |
| -0.445 | 0.989 | 0.596 | 0.313 | 0.001 |
| 0.03   | 0.715 | 0.004 | 0.466 | 0.004 |
| -0.206 | 0.992 | 0.012 | 0.51  | 0.001 |
| 0.108  | 0.983 | 0.008 | 0.534 | 0     |
| -0.575 | 0.543 | 0.18  | 0.354 | 0.692 |
| 0.092  | 0.938 | 0.75  | 0.466 | 0.235 |
| -0.224 | 0.992 | 0.828 | 0.51  | 0.258 |
| 0.262  | 0.99  | 0.01  | 0.482 | 0.019 |
| 0.31   | 0.972 | 0.017 | 0.292 | 0.006 |
| 0.146  | 0.684 | 0.057 | 0.37  | 0.388 |
| 0.193  | 0.683 | 0.096 | 0.326 | 0.649 |
| 0.147  | 0.55  | 0.074 | 0.337 | 0.277 |
| -0.597 | 0.956 | 0.084 | 0.37  | 0.002 |
| -0.376 | 0.995 | 0.907 | 0.58  | 0.003 |
| 1.19   | 0.976 | 0.637 | 0.686 | 0.232 |
| 0.456  | 0.983 | 0.129 | 0.394 | 0.04  |
| 0.418  | 0.969 | 0.071 | 0.426 | 0.063 |
| 0.433  | 0.952 | 0.13  | 0.504 | 0.019 |
| -0.488 | 0.993 | 0.085 | 0.434 | 0.01  |
| 0.463  | 0.941 | 0.041 | 0.536 | 0.061 |
| 0.421  | 0.988 | 0.224 | 0.66  | 0.019 |
| 0.265  | 0.657 | 0.206 | 0.442 | 0.138 |
| 0.565  | 0.967 | 0.097 | 0.432 | 0.068 |
| -0.265 | 0.37  | 0.16  | 0.483 | 0.829 |
| -0.144 | 0.968 | 0.685 | 0.673 | 0.013 |
| 0.355  | 0.625 | 0.454 | 0.396 | 0.202 |
| -0.132 | 0.98  | 0.831 | 0.336 | 0.033 |
| 0.284  | 0.994 | 0.593 | 0.356 | 0.005 |
| 1.081  | 0.917 | 0.208 | 0.388 | 0.238 |
| -0.154 | 0.98  | 0.766 | 0.348 | 0.021 |
| -0.472 | 0.992 | 0.787 | 0.333 | 0.008 |
| -0.35  | 0.995 | 0.887 | 0.274 | 0.052 |
| 0.64   | 0.726 | 0.413 | 0.35  | 0.252 |
| 0.572  | 0.71  | 0.05  | 0.53  | 0.017 |
| 0.103  | 0.295 | 0.308 | 0.312 | 0.487 |
| 0.076  | 0.844 | 0.067 | 0.266 | 0.026 |
| -0.065 | 0.962 | 0.001 | 0.462 | 0.001 |
| -0.089 | 0.984 | 0.005 | 0.295 | 0.008 |
| -0.255 | 0.936 | 0.034 | 0.355 | 0.069 |
| 0.2    | 0.985 | 0.02  | 0.588 | 0.001 |



|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| -0.268 | 0.964 | 0.17  | 0.526 | 0.009 |
| 0.121  | 0.992 | 0.239 | 0.518 | 0.004 |
| 0.398  | 0.737 | 0.13  | 0.332 | 0.45  |
| -0.488 | 0.94  | 0.123 | 0.574 | 0.007 |
| 0.988  | 0.994 | 0.716 | 0.526 | 0.06  |
| -0.017 | 0.808 | 0.826 | 0.492 | 0.077 |
| 0.388  | 0.964 | 0.108 | 0.48  | 0.007 |
| -0.006 | 0.984 | 0.103 | 0.46  | 0.004 |
| 0.521  | 0.994 | 0.882 | 0.614 | 0.305 |
| -0.977 | 0.264 | 0.983 | 0.358 | 0.743 |
| 0.273  | 0.992 | 0.026 | 0.384 | 0.03  |
| 0.389  | 0.986 | 0.384 | 0.542 | 0.015 |
| 0.239  | 0.934 | 0.044 | 0.292 | 0.06  |
| -0.068 | 0.952 | 0.055 | 0.246 | 0.021 |
| -0.782 | 0.956 | 0.909 | 0.106 | 0.007 |
| 0.585  | 0.994 | 0.053 | 0.388 | 0.052 |
| -0.934 | 0.464 | 0.968 | 0.412 | 0.867 |
| 0.313  | 0.77  | 0.605 | 0.452 | 0.154 |
| -0.088 | 0.735 | 0.663 | 0.494 | 0.315 |
| 0.162  | 0.621 | 0.765 | 0.498 | 0.274 |
| 0.375  | 0.652 | 0.402 | 0.42  | 0.24  |
| 0.884  | 0.98  | 0.443 | 0.69  | 0.236 |
| -0.262 | 0.967 | 0.427 | 0.408 | 0.009 |
| -0.548 | 0.947 | 0.359 | 0.336 | 0.003 |
| -0.522 | 0.979 | 0.168 | 0.382 | 0     |
| -0.602 | 0.994 | 0.972 | 0.728 | 0.012 |
| -0.277 | 0.98  | 0.912 | 0.618 | 0.08  |
| -0.366 | 0.989 | 0.875 | 0.438 | 0.008 |
| -0.595 | 0.974 | 0.108 | 0.309 | 0.002 |
| -0.103 | 0.947 | 0.095 | 0.308 | 0.001 |
| -0.474 | 0.992 | 0.846 | 0.341 | 0.014 |
| -0.112 | 0.937 | 0.032 | 0.476 | 0.014 |
| 0.205  | 0.982 | 0.869 | 0.596 | 0.087 |
| -0.736 | 0.922 | 0.866 | 0.612 | 0.015 |
| -0.5   | 0.992 | 0.698 | 0.375 | 0.004 |
| -0.294 | 0.987 | 0.028 | 0.564 | 0.002 |
| -0.181 | 0.92  | 0.296 | 0.394 | 0.42  |
| -0.015 | 0.954 | 0.101 | 0.25  | 0.005 |
| 0.476  | 0.74  | 0.154 | 0.464 | 0.06  |
| 0.367  | 0.934 | 0.095 | 0.262 | 0.022 |
| 0.233  | 0.769 | 0.034 | 0.256 | 0.005 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.422  | 0.928 | 0.058 | 0.26  | 0.194 |
| -0.509 | 0.993 | 0.431 | 0.466 | 0.006 |
| -0.077 | 0.98  | 0.831 | 0.336 | 0.033 |
| 0.288  | 0.994 | 0.593 | 0.356 | 0.005 |
| 0.573  | 0.696 | 0.284 | 0.348 | 0.24  |
| 1.254  | 0.661 | 0.689 | 0.454 | 0.68  |
| 1.159  | 0.75  | 0.758 | 0.418 | 0.581 |
| 0.248  | 0.717 | 0.611 | 0.292 | 0.197 |
| 0.278  | 0.514 | 0.668 | 0.455 | 0.55  |
| -0.072 | 0.98  | 0.831 | 0.336 | 0.033 |
| 0.91   | 0.992 | 0.559 | 0.88  | 0.126 |
| -0.055 | 1     | 0.87  | 0.807 | 0.014 |
| -0.144 | 0.968 | 0.685 | 0.673 | 0.013 |
| -0.845 | 0.908 | 0.968 | 0.118 | 0.006 |
| 0.678  | 0.696 | 0.484 | 0.392 | 0.554 |
| 0.065  | 0.992 | 0.822 | 0.732 | 0.007 |
| 0.553  | 0.58  | 0.308 | 0.37  | 0.411 |
| 0.75   | 0.962 | 0.334 | 0.476 | 0.585 |
| 0.652  | 0.58  | 0.279 | 0.386 | 0.438 |
| 0.861  | 0.962 | 0.305 | 0.496 | 0.616 |
| -1.016 | 0.391 | 0.125 | 0.264 | 0.068 |
| 0.555  | 1     | 0.819 | 0.794 | 0.016 |
| -0.009 | 0.975 | 0.936 | 0.682 | 0.01  |
| 0.455  | 0.968 | 0.248 | 0.368 | 0.114 |
| 0.887  | 0.98  | 0.202 | 0.59  | 0.073 |
| 0.285  | 0.994 | 0.593 | 0.356 | 0.005 |
| 0.972  | 0.997 | 0.889 | 0.614 | 0.014 |
| -0.147 | 0.98  | 0.652 | 0.398 | 0.033 |
| 0.047  | 0.971 | 0.288 | 0.466 | 0.047 |
| 0.937  | 0.807 | 0.277 | 0.394 | 0.301 |
| -0.291 | 0.377 | 0.181 | 0.33  | 0.418 |
| 0.753  | 0.994 | 0.716 | 0.452 | 0.045 |
| -0.095 | 0.912 | 0.225 | 0.398 | 0.005 |
| 0.114  | 0.948 | 0.492 | 0.56  | 0.005 |
| 0.264  | 0.991 | 0.022 | 0.57  | 0.001 |
| -0.249 | 0.979 | 0.971 | 0.54  | 0.473 |
| 0.018  | 0.976 | 0.896 | 0.462 | 0.003 |
| -0.252 | 0.969 | 0.2   | 0.53  | 0.004 |
| 1.07   | 0.962 | 0.159 | 0.874 | 0.047 |
| -0.589 | 0.994 | 0.203 | 0.431 | 0     |
| 0.179  | 0.937 | 0.058 | 0.46  | 0.003 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| -0.363 | 0.733 | 0.001 | 0.448 | 0     |
| 0.498  | 0.742 | 0.145 | 0.43  | 0.052 |
| 0.541  | 0.995 | 0.514 | 0.55  | 0.009 |
| -1.56  | 0.264 | 0.968 | 0.364 | 0.846 |
| 0.695  | 0.739 | 0.232 | 0.346 | 0.376 |
| -0.314 | 0.278 | 0.113 | 0.342 | 0.245 |
| 0.941  | 0.767 | 0.72  | 0.478 | 0.305 |
| -0.438 | 0.356 | 0.568 | 0.344 | 0.365 |
| 0.992  | 0.778 | 0.338 | 0.44  | 0.276 |
| 0.952  | 0.986 | 0.573 | 0.574 | 0.26  |
| -0.73  | 0.642 | 0.133 | 0.368 | 0.162 |
| 0.681  | 0.813 | 0.655 | 0.496 | 0.5   |
| -0.237 | 0.279 | 0.042 | 0.28  | 0.238 |
| -0.827 | 0.891 | 0.47  | 0.154 | 0.006 |
| 0.495  | 0.983 | 0.029 | 0.518 | 0.015 |
| -0.333 | 0.878 | 0.86  | 0.47  | 0.023 |
| 0.632  | 0.96  | 0.016 | 0.432 | 0.024 |
| 0.118  | 0.665 | 0.468 | 0.332 | 0.338 |
| -0.751 | 0.891 | 0.294 | 0.15  | 0.004 |
| 0.191  | 0.992 | 0.663 | 0.594 | 0.01  |
| -0.134 | 0.986 | 0.004 | 0.402 | 0.002 |
| 0.442  | 0.993 | 0.732 | 0.588 | 0.005 |
| 0.815  | 0.993 | 0.078 | 0.558 | 0.006 |
| 0.952  | 0.899 | 0.234 | 0.412 | 0.53  |
| 1.065  | 0.985 | 0.034 | 0.733 | 0.069 |
| 0.522  | 0.568 | 0.55  | 0.556 | 0.118 |
| 0.369  | 0.997 | 0.486 | 0.68  | 0.01  |
| 0.457  | 0.978 | 0.128 | 0.382 | 0.027 |
| -0.525 | 0.713 | 0.447 | 0.5   | 0.5   |
| 0.288  | 0.289 | 0.423 | 0.3   | 0.303 |
| 0.426  | 0.975 | 0.301 | 0.31  | 0.029 |
| 0.383  | 0.986 | 0.109 | 0.406 | 0.008 |
| 0.296  | 0.994 | 0.593 | 0.356 | 0.005 |
| 0.265  | 0.064 | 0.034 | 0.426 | 0.106 |
| 0.377  | 0.994 | 0.593 | 0.356 | 0.005 |
| 0.429  | 0.983 | 0.119 | 0.546 | 0.034 |
| 0.164  | 0.996 | 0.035 | 0.508 | 0.035 |
| -0.982 | 0.236 | 0.189 | 0.264 | 0.069 |
| -0.13  | 0.505 | 0.583 | 0.284 | 0.676 |
|        |       |       |       |       |
|        |       |       |       |       |

|        | <b>Metabolites after MDS using CDK (165) (used for MDS using ADMET)</b> |       |       |         |       |
|--------|---|-------|-------|---------|-------|
| VD     | BBB   |       | A2-In | A2-Subs | A4-In |
| -0.367 |   | 0.995 | 0.729 | 0.788   | 0.006 |
| 0.321  |   | 0.892 | 0.279 | 0.416   | 0.712 |
| -0.144 |   | 0.579 | 0.185 | 0.374   | 0.164 |
| 0.746  |   | 0.824 | 0.113 | 0.402   | 0.286 |
| 0.421  |   | 0.695 | 0.166 | 0.379   | 0.467 |
| 0.07   |   | 0.981 | 0.914 | 0.56    | 0.024 |
| 0.324  |   | 0.871 | 0.773 | 0.554   | 0.028 |
| -0.017 |   | 0.694 | 0.439 | 0.318   | 0.5   |
| -0.144 |   | 0.578 | 0.658 | 0.306   | 0.302 |
| 0.506  |   | 0.89  | 0.584 | 0.504   | 0.086 |
| -0.241 |   | 0.773 | 0.358 | 0.408   | 0.271 |
| 0.475  |   | 0.606 | 0.782 | 0.446   | 0.467 |
| -0.289 |   | 0.517 | 0.089 | 0.444   | 0.438 |
| 0.501  |   | 0.692 | 0.257 | 0.384   | 0.588 |
| 1.135  |   | 0.81  | 0.528 | 0.392   | 0.515 |
| 0.686  |   | 0.831 | 0.228 | 0.364   | 0.443 |
| 0.622  |   | 0.784 | 0.451 | 0.464   | 0.572 |
| 0.689  |   | 0.99  | 0.338 | 0.678   | 0.201 |
| -0.425 |   | 0.587 | 0.216 | 0.404   | 0.345 |
| 0.926  |   | 0.842 | 0.164 | 0.328   | 0.357 |
| 0.592  |   | 0.903 | 0.132 | 0.424   | 0.306 |
| 0.824  |   | 0.774 | 0.223 | 0.398   | 0.431 |
| 0.952  |   | 0.899 | 0.234 | 0.412   | 0.53  |
| 0.85   |   | 0.814 | 0.205 | 0.354   | 0.332 |
| 0.579  |   | 0.71  | 0.17  | 0.41    | 0.564 |
| 0.122  |   | 0.623 | 0.161 | 0.447   | 0.667 |
| 0.762  |   | 0.783 | 0.176 | 0.446   | 0.53  |
| 0.404  |   | 0.75  | 0.295 | 0.46    | 0.542 |
| 0.498  |   | 0.618 | 0.567 | 0.274   | 0.395 |
| -0.144 |   | 0.578 | 0.658 | 0.306   | 0.302 |
| 0.659  |   | 0.878 | 0.211 | 0.402   | 0.063 |
| 0.397  |   | 0.973 | 0.018 | 0.472   | 0.039 |
| -0.79  |   | 0.891 | 0.47  | 0.154   | 0.006 |
| 0.022  |   | 0.975 | 0.5   | 0.54    | 0.019 |
| -0.287 |   | 0.243 | 0.254 | 0.362   | 0.341 |
| 0.438  |   | 0.986 | 0.89  | 0.668   | 0.185 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.47   | 0.932 | 0.225 | 0.412 | 0.34  |
| -0.184 | 0.422 | 0.644 | 0.484 | 0.704 |
| 0.042  | 0.817 | 0.5   | 0.59  | 0.343 |
| 0.659  | 0.878 | 0.211 | 0.402 | 0.063 |
| 0.108  | 0.51  | 0.168 | 0.434 | 0.299 |
| 0.658  | 0.84  | 0.083 | 0.39  | 0.342 |
| 0.515  | 0.784 | 0.141 | 0.438 | 0.336 |
| 0.062  | 0.787 | 0.24  | 0.48  | 0.292 |
| 0.511  | 0.923 | 0.302 | 0.428 | 0.46  |
| 0.859  | 0.724 | 0.233 | 0.326 | 0.469 |
| -0.187 | 0.356 | 0.119 | 0.29  | 0.25  |
| 0.888  | 0.761 | 0.15  | 0.36  | 0.386 |
| -0.108 | 0.393 | 0.075 | 0.29  | 0.166 |
| 1.072  | 0.983 | 0.311 | 0.468 | 0.281 |
| 0.727  | 0.909 | 0.283 | 0.526 | 0.418 |
| 1.014  | 0.926 | 0.215 | 0.356 | 0.462 |
| -0.473 | 0.687 | 0.124 | 0.32  | 0.399 |
| 0.976  | 0.937 | 0.134 | 0.398 | 0.373 |
| 0.582  | 0.696 | 0.312 | 0.337 | 0.299 |
| 0.927  | 0.612 | 0.267 | 0.396 | 0.378 |
| 0.426  | 0.689 | 0.276 | 0.321 | 0.127 |
| 0.53   | 0.733 | 0.19  | 0.385 | 0.208 |
| -0.347 | 0.456 | 0.089 | 0.354 | 0.368 |
| 0.674  | 0.816 | 0.137 | 0.356 | 0.438 |
| 0.964  | 0.494 | 0.85  | 0.562 | 0.788 |
| 0.678  | 0.696 | 0.484 | 0.392 | 0.554 |
| 0.042  | 0.916 | 0.521 | 0.362 | 0.14  |
| 0.544  | 0.721 | 0.303 | 0.36  | 0.175 |
| 0.753  | 0.783 | 0.151 | 0.382 | 0.298 |
| 0.471  | 0.665 | 0.494 | 0.326 | 0.238 |
| 0.748  | 0.41  | 0.663 | 0.492 | 0.618 |
| 0.707  | 0.46  | 0.539 | 0.514 | 0.548 |
| 1.158  | 0.921 | 0.747 | 0.514 | 0.88  |
| 1.26   | 0.661 | 0.686 | 0.45  | 0.72  |
| 1.159  | 0.75  | 0.758 | 0.418 | 0.581 |
| 1.254  | 0.661 | 0.689 | 0.454 | 0.68  |
| 1.083  | 0.706 | 0.716 | 0.444 | 0.38  |
| 0.825  | 0.569 | 0.156 | 0.302 | 0.317 |
| 1.079  | 0.984 | 0.18  | 0.496 | 0.101 |
| 0.914  | 0.912 | 0.178 | 0.326 | 0.251 |
| -0.478 | 0.611 | 0.064 | 0.308 | 0.113 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.858  | 0.929 | 0.89  | 0.584 | 0.81  |
| 0.481  | 0.943 | 0.312 | 0.536 | 0.098 |
| 0.834  | 0.858 | 0.286 | 0.486 | 0.457 |
| 1.236  | 0.703 | 0.637 | 0.468 | 0.676 |
| -0.261 | 0.985 | 0.376 | 0.62  | 0.054 |
| 0.011  | 0.936 | 0.055 | 0.406 | 0.015 |
| 0.612  | 0.966 | 0.546 | 0.482 | 0.208 |
| 0.369  | 0.993 | 0.023 | 0.42  | 0.043 |
| -0.051 | 0.92  | 0.32  | 0.175 | 0.024 |
| -0.205 | 0.838 | 0.127 | 0.26  | 0.047 |
| -0.079 | 0.765 | 0.112 | 0.434 | 0.367 |
| -0.429 | 0.749 | 0.263 | 0.438 | 0.332 |
| 0.511  | 0.923 | 0.302 | 0.428 | 0.46  |
| 0.587  | 0.574 | 0.154 | 0.302 | 0.554 |
| 0.259  | 0.951 | 0.538 | 0.639 | 0.044 |
| -0.159 | 0.476 | 0.07  | 0.322 | 0.053 |
| 0.978  | 0.683 | 0.634 | 0.436 | 0.401 |
| 0.566  | 0.645 | 0.487 | 0.45  | 0.543 |
| 0.794  | 0.447 | 0.802 | 0.496 | 0.644 |
| 1.171  | 0.828 | 0.22  | 0.47  | 0.231 |
| 1.274  | 0.81  | 0.307 | 0.434 | 0.323 |
| 1.458  | 0.913 | 0.281 | 0.412 | 0.415 |
| -0.164 | 0.531 | 0.161 | 0.334 | 0.291 |
| 1.301  | 0.893 | 0.194 | 0.406 | 0.264 |
| -0.21  | 0.627 | 0.126 | 0.386 | 0.353 |
| 1.115  | 0.91  | 0.202 | 0.448 | 0.43  |
| 1.388  | 0.878 | 0.257 | 0.382 | 0.302 |
| 1.058  | 0.857 | 0.188 | 0.348 | 0.138 |
| -0.164 | 0.531 | 0.161 | 0.334 | 0.291 |
| -0.195 | 0.506 | 0.148 | 0.286 | 0.246 |
| -0.17  | 0.531 | 0.15  | 0.332 | 0.242 |
| 0.56   | 0.652 | 0.565 | 0.38  | 0.088 |
| -0.443 | 0.995 | 0.98  | 0.641 | 0.022 |
| -0.499 | 0.994 | 0.991 | 0.578 | 0.006 |
| -0.024 | 0.993 | 0.136 | 0.322 | 0.035 |
| 0.711  | 0.989 | 0.968 | 0.752 | 0.033 |
| 0.492  | 0.996 | 0.843 | 0.61  | 0.295 |
| 0.092  | 0.938 | 0.75  | 0.466 | 0.235 |
| -0.224 | 0.992 | 0.828 | 0.51  | 0.258 |
| 0.262  | 0.99  | 0.01  | 0.482 | 0.019 |
| 0.146  | 0.684 | 0.057 | 0.37  | 0.388 |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 0.193  | 0.683 | 0.096 | 0.326 | 0.649 |
| 0.147  | 0.55  | 0.074 | 0.337 | 0.277 |
| 0.265  | 0.657 | 0.206 | 0.442 | 0.138 |
| 0.355  | 0.625 | 0.454 | 0.396 | 0.202 |
| 1.081  | 0.917 | 0.208 | 0.388 | 0.238 |
| -0.35  | 0.995 | 0.887 | 0.274 | 0.052 |
| 0.572  | 0.71  | 0.05  | 0.53  | 0.017 |
| 0.103  | 0.295 | 0.308 | 0.312 | 0.487 |
| 0.121  | 0.992 | 0.239 | 0.518 | 0.004 |
| 0.398  | 0.737 | 0.13  | 0.332 | 0.45  |
| -0.017 | 0.808 | 0.826 | 0.492 | 0.077 |
| 0.273  | 0.992 | 0.026 | 0.384 | 0.03  |
| -0.068 | 0.952 | 0.055 | 0.246 | 0.021 |
| -0.782 | 0.956 | 0.909 | 0.106 | 0.007 |
| 0.313  | 0.77  | 0.605 | 0.452 | 0.154 |
| -0.088 | 0.735 | 0.663 | 0.494 | 0.315 |
| 0.162  | 0.621 | 0.765 | 0.498 | 0.274 |
| 0.375  | 0.652 | 0.402 | 0.42  | 0.24  |
| 0.205  | 0.982 | 0.869 | 0.596 | 0.087 |
| 0.476  | 0.74  | 0.154 | 0.464 | 0.06  |
| 0.573  | 0.696 | 0.284 | 0.348 | 0.24  |
| 1.254  | 0.661 | 0.689 | 0.454 | 0.68  |
| 1.159  | 0.75  | 0.758 | 0.418 | 0.581 |
| 0.248  | 0.717 | 0.611 | 0.292 | 0.197 |
| 0.278  | 0.514 | 0.668 | 0.455 | 0.55  |
| -0.845 | 0.908 | 0.968 | 0.118 | 0.006 |
| 0.678  | 0.696 | 0.484 | 0.392 | 0.554 |
| 0.553  | 0.58  | 0.308 | 0.37  | 0.411 |
| 0.652  | 0.58  | 0.279 | 0.386 | 0.438 |
| -0.009 | 0.975 | 0.936 | 0.682 | 0.01  |
| 0.047  | 0.971 | 0.288 | 0.466 | 0.047 |
| 0.937  | 0.807 | 0.277 | 0.394 | 0.301 |
| -0.291 | 0.377 | 0.181 | 0.33  | 0.418 |
| 1.07   | 0.962 | 0.159 | 0.874 | 0.047 |
| 0.695  | 0.739 | 0.232 | 0.346 | 0.376 |
| -0.314 | 0.278 | 0.113 | 0.342 | 0.245 |
| 0.941  | 0.767 | 0.72  | 0.478 | 0.305 |
| -0.438 | 0.356 | 0.568 | 0.344 | 0.365 |
| 0.992  | 0.778 | 0.338 | 0.44  | 0.276 |
| -0.73  | 0.642 | 0.133 | 0.368 | 0.162 |
| 0.681  | 0.813 | 0.655 | 0.496 | 0.5   |

|         |   |       |         |        |          |
|---------|---|-------|---------|--------|----------|
| -0.751  |   | 0.891 | 0.294   | 0.15   | 0.004    |
| 0.952   |   | 0.899 | 0.234   | 0.412  | 0.53     |
| 1.065   |   | 0.985 | 0.034   | 0.733  | 0.069    |
| 0.522   |   | 0.568 | 0.55    | 0.556  | 0.118    |
| 0.288   |   | 0.289 | 0.423   | 0.3    | 0.303    |
| 0.164   |   | 0.996 | 0.035   | 0.508  | 0.035    |
|         |   |       |         |        |          |
|         | <b>468 Metabolites and positive &amp; negative controls</b> |       |         |        |          |
|         |   |       |         |        |          |
| A4-Subs | C9-In   |       | C9-Subs | C19-In | C19-Subs |
| 0.326   |   | 0.373 | 0.272   | 0.199  | 0.434    |
| 0.522   |   | 0.054 | 0.549   | 0.103  | 0.733    |
| 0.788   |   | 0.159 | 0.202   | 0.28   | 0.714    |
| 0.706   |   | 0.083 | 0.153   | 0.173  | 0.69     |
| 0.522   |   | 0.021 | 0.458   | 0.055  | 0.723    |
| 0.706   |   | 0.181 | 0.328   | 0.205  | 0.542    |
| 0.854   |   | 0.03  | 0.169   | 0.286  | 0.693    |
| 0.831   |   | 0.095 | 0.188   | 0.433  | 0.687    |
| 0.622   |   | 0.398 | 0.46    | 0.558  | 0.703    |
| 0.852   |   | 0.1   | 0.149   | 0.076  | 0.46     |
| 0.928   |   | 0.056 | 0.132   | 0.061  | 0.172    |
| 0.812   |   | 0.112 | 0.296   | 0.065  | 0.3      |
| 0.8     |   | 0.032 | 0.645   | 0.056  | 0.456    |
| 0.542   |   | 0.257 | 0.345   | 0.379  | 0.516    |
| 0.738   |   | 0.519 | 0.378   | 0.404  | 0.601    |
| 0.618   |   | 0.192 | 0.503   | 0.54   | 0.509    |
| 0.598   |   | 0.065 | 0.312   | 0.026  | 0.536    |
| 0.634   |   | 0.001 | 0.404   | 0.019  | 0.31     |
| 0.722   |   | 0.247 | 0.641   | 0.418  | 0.639    |
| 0.618   |   | 0.313 | 0.571   | 0.524  | 0.732    |
| 0.272   |   | 0.261 | 0.339   | 0.131  | 0.522    |
| 0.94    |   | 0.011 | 0.126   | 0.266  | 0.733    |
| 0.704   |   | 0.136 | 0.288   | 0.073  | 0.334    |
| 0.954   |   | 0.049 | 0.206   | 0.07   | 0.206    |
| 0.964   |   | 0.03  | 0.912   | 0.054  | 0.354    |
| 0.852   |   | 0.123 | 0.489   | 0.077  | 0.643    |
| 0.886   |   | 0.016 | 0.924   | 0.039  | 0.908    |
| 0.542   |   | 0.257 | 0.345   | 0.379  | 0.516    |
| 0.88    |   | 0.041 | 0.132   | 0.152  | 0.854    |
| 0.914   |   | 0.05  | 0.76    | 0.044  | 0.304    |



|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.735 | 0.118 | 0.54  | 0.054 | 0.464 |
| 0.964 | 0.041 | 0.233 | 0.114 | 0.456 |
| 0.972 | 0.031 | 0.53  | 0.077 | 0.592 |
| 0.71  | 0.067 | 0.321 | 0.055 | 0.619 |
| 0.92  | 0.194 | 0.603 | 0.205 | 0.531 |
| 0.666 | 0.121 | 0.48  | 0.374 | 0.596 |
| 0.522 | 0.021 | 0.458 | 0.055 | 0.723 |
| 0.282 | 0.009 | 0.437 | 0.048 | 0.697 |
| 0.902 | 0.344 | 0.197 | 0.25  | 0.566 |
| 0.624 | 0.116 | 0.529 | 0.227 | 0.691 |
| 0.754 | 0.074 | 0.266 | 0.203 | 0.591 |
| 0.664 | 0.083 | 0.259 | 0.11  | 0.71  |
| 0.584 | 0.131 | 0.447 | 0.101 | 0.702 |
| 0.748 | 0.073 | 0.165 | 0.145 | 0.736 |
| 0.736 | 0.117 | 0.198 | 0.248 | 0.586 |
| 0.604 | 0.047 | 0.263 | 0.056 | 0.468 |
| 0.358 | 0.023 | 0.381 | 0.057 | 0.667 |
| 0.8   | 0.046 | 0.325 | 0.102 | 0.791 |
| 0.866 | 0.024 | 0.916 | 0.054 | 0.89  |
| 0.792 | 0.041 | 0.15  | 0.06  | 0.704 |
| 0.773 | 0.055 | 0.266 | 0.214 | 0.609 |
| 0.916 | 0.315 | 0.249 | 0.394 | 0.703 |
| 0.732 | 0.105 | 0.207 | 0.134 | 0.302 |
| 0.75  | 0.061 | 0.304 | 0.132 | 0.458 |
| 0.904 | 0.058 | 0.293 | 0.44  | 0.719 |
| 0.744 | 0.077 | 0.262 | 0.41  | 0.67  |
| 0.522 | 0.036 | 0.366 | 0.214 | 0.683 |
| 0.642 | 0.083 | 0.387 | 0.373 | 0.552 |
| 0.51  | 0.099 | 0.402 | 0.233 | 0.644 |
| 0.942 | 0.078 | 0.116 | 0.146 | 0.569 |
| 0.62  | 0.331 | 0.637 | 0.463 | 0.734 |
| 0.893 | 0.682 | 0.304 | 0.263 | 0.754 |
| 0.528 | 0.022 | 0.652 | 0.066 | 0.59  |
| 0.166 | 0.286 | 0.752 | 0.1   | 0.262 |
| 0.152 | 0.404 | 0.736 | 0.245 | 0.268 |
| 0.16  | 0.293 | 0.753 | 0.1   | 0.25  |
| 0.16  | 0.293 | 0.753 | 0.1   | 0.25  |
| 0.296 | 0.427 | 0.519 | 0.24  | 0.332 |
| 0.446 | 0.941 | 0.75  | 0.777 | 0.536 |
| 0.462 | 0.957 | 0.753 | 0.777 | 0.548 |
| 0.046 | 0.048 | 0.535 | 0.11  | 0.192 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.18  | 0.293 | 0.604 | 0.362 | 0.238 |
| 0.876 | 0.008 | 0.903 | 0.087 | 0.892 |
| 0.036 | 0.001 | 0.391 | 0.045 | 0.166 |
| 0.176 | 0.021 | 0.392 | 0.053 | 0.364 |
| 0.15  | 0.001 | 0.301 | 0.003 | 0.266 |
| 0.008 | 0.001 | 0.403 | 0.023 | 0.15  |
| 0.034 | 0.002 | 0.412 | 0.007 | 0.084 |
| 0.22  | 0.009 | 0.35  | 0.043 | 0.102 |
| 0.052 | 0.004 | 0.346 | 0.022 | 0.16  |
| 0.028 | 0.002 | 0.44  | 0.035 | 0.208 |
| 0.028 | 0.004 | 0.358 | 0.016 | 0.158 |
| 0.008 | 0.003 | 0.35  | 0.024 | 0.082 |
| 0.024 | 0.004 | 0.327 | 0.035 | 0.1   |
| 0.036 | 0.005 | 0.317 | 0.024 | 0.158 |
| 0.112 | 0.002 | 0.43  | 0.072 | 0.16  |
| 0.404 | 0.163 | 0.41  | 0.07  | 0.362 |
| 0.468 | 0.089 | 0.445 | 0.096 | 0.26  |
| 0.176 | 0.019 | 0.4   | 0.058 | 0.182 |
| 0.184 | 0.014 | 0.471 | 0.02  | 0.11  |
| 0.039 | 0.002 | 0.354 | 0.014 | 0.154 |
| 0.86  | 0.45  | 0.969 | 0.612 | 0.794 |
| 0.264 | 0.001 | 0.341 | 0.024 | 0.461 |
| 0.332 | 0.005 | 0.491 | 0.291 | 0.74  |
| 0.388 | 0.006 | 0.691 | 0.233 | 0.854 |
| 0.052 | 0.001 | 0.224 | 0.022 | 0.236 |
| 0.376 | 0.023 | 0.532 | 0.534 | 0.572 |
| 0.358 | 0.026 | 0.512 | 0.233 | 0.636 |
| 0.252 | 0.009 | 0.516 | 0.048 | 0.362 |
| 0.18  | 0.018 | 0.47  | 0.054 | 0.472 |
| 0.252 | 0.029 | 0.582 | 0.048 | 0.35  |
| 0.252 | 0.029 | 0.582 | 0.048 | 0.35  |
| 0.182 | 0.055 | 0.34  | 0.03  | 0.394 |
| 0.118 | 0.009 | 0.382 | 0.035 | 0.432 |
| 0.194 | 0.033 | 0.573 | 0.291 | 0.516 |
| 0.452 | 0.057 | 0.497 | 0.346 | 0.482 |
| 0.416 | 0.034 | 0.465 | 0.091 | 0.5   |
| 0.352 | 0     | 0.447 | 0.017 | 0.624 |
| 0.138 | 0.001 | 0.436 | 0.037 | 0.282 |
| 0.282 | 0.012 | 0.507 | 0.036 | 0.416 |
| 0.514 | 0.041 | 0.68  | 0.708 | 0.494 |
| 0.566 | 0.014 | 0.525 | 0.317 | 0.714 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.366 | 0.008 | 0.325 | 0.013 | 0.346 |
| 0.174 | 0.064 | 0.551 | 0.065 | 0.346 |
| 0.454 | 0.053 | 0.643 | 0.566 | 0.85  |
| 0.696 | 0.619 | 0.791 | 0.661 | 0.638 |
| 0.458 | 0.368 | 0.458 | 0.5   | 0.444 |
| 0.098 | 0.026 | 0.656 | 0.12  | 0.25  |
| 0.356 | 0.039 | 0.549 | 0.397 | 0.378 |
| 0.32  | 0.019 | 0.476 | 0.072 | 0.587 |
| 0.074 | 0.006 | 0.342 | 0.079 | 0.274 |
| 0.306 | 0.114 | 0.714 | 0.427 | 0.678 |
| 0.344 | 0.002 | 0.423 | 0.028 | 0.53  |
| 0.09  | 0.031 | 0.245 | 0.183 | 0.308 |
| 0.124 | 0.036 | 0.484 | 0.102 | 0.526 |
| 0.1   | 0.025 | 0.418 | 0.208 | 0.426 |
| 0.466 | 0.137 | 0.507 | 0.335 | 0.619 |
| 0.572 | 0.079 | 0.547 | 0.265 | 0.576 |
| 0.394 | 0.096 | 0.613 | 0.358 | 0.428 |
| 0.64  | 0.371 | 0.462 | 0.494 | 0.53  |
| 0.256 | 0.008 | 0.508 | 0.217 | 0.528 |
| 0.178 | 0.036 | 0.44  | 0.157 | 0.478 |
| 0.452 | 0.078 | 0.423 | 0.782 | 0.734 |
| 0.48  | 0.051 | 0.584 | 0.649 | 0.772 |
| 0.64  | 0.492 | 0.626 | 0.486 | 0.614 |
| 0.51  | 0.078 | 0.537 | 0.375 | 0.72  |
| 0.362 | 0.054 | 0.481 | 0.643 | 0.392 |
| 0.144 | 0.103 | 0.523 | 0.174 | 0.454 |
| 0.434 | 0.005 | 0.487 | 0.104 | 0.682 |
| 0.21  | 0.02  | 0.425 | 0.056 | 0.412 |
| 0.392 | 0.136 | 0.462 | 0.358 | 0.46  |
| 0.172 | 0.007 | 0.433 | 0.02  | 0.35  |
| 0.65  | 0.063 | 0.628 | 0.181 | 0.708 |
| 0.416 | 0.364 | 0.702 | 0.373 | 0.49  |
| 0.556 | 0.607 | 0.581 | 0.558 | 0.42  |
| 0.49  | 0.707 | 0.507 | 0.316 | 0.438 |
| 0.385 | 0.015 | 0.314 | 0.157 | 0.5   |
| 0.54  | 0.149 | 0.659 | 0.552 | 0.596 |
| 0.622 | 0.046 | 0.53  | 0.194 | 0.602 |
| 0.444 | 0.056 | 0.914 | 0.199 | 0.752 |
| 0.078 | 0.171 | 0.572 | 0.132 | 0.436 |
| 0.438 | 0.002 | 0.376 | 0.116 | 0.657 |
| 0.3   | 0.156 | 0.742 | 0.436 | 0.624 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.39  | 0.028 | 0.549 | 0.245 | 0.716 |
| 0.172 | 0.09  | 0.449 | 0.258 | 0.368 |
| 0.664 | 0.65  | 0.72  | 0.637 | 0.502 |
| 0.608 | 0.751 | 0.515 | 0.883 | 0.47  |
| 0.512 | 0.39  | 0.437 | 0.532 | 0.384 |
| 0.504 | 0.701 | 0.614 | 0.354 | 0.482 |
| 0.486 | 0.003 | 0.594 | 0.061 | 0.628 |
| 0.444 | 0.521 | 0.547 | 0.139 | 0.454 |
| 0.55  | 0.759 | 0.697 | 0.875 | 0.688 |
| 0.58  | 0.062 | 0.429 | 0.564 | 0.822 |
| 0.53  | 0.011 | 0.39  | 0.205 | 0.712 |
| 0.448 | 0.349 | 0.506 | 0.1   | 0.41  |
| 0.448 | 0.349 | 0.506 | 0.1   | 0.41  |
| 0.636 | 0.398 | 0.685 | 0.436 | 0.53  |
| 0.602 | 0.388 | 0.75  | 0.457 | 0.548 |
| 0.602 | 0.617 | 0.399 | 0.765 | 0.706 |
| 0.47  | 0.198 | 0.601 | 0.267 | 0.531 |
| 0.616 | 0.55  | 0.582 | 0.547 | 0.662 |
| 0.659 | 0.5   | 0.682 | 0.772 | 0.728 |
| 0.604 | 0.542 | 0.624 | 0.555 | 0.548 |
| 0.618 | 0.772 | 0.683 | 0.821 | 0.666 |
| 0.682 | 0.078 | 0.56  | 0.121 | 0.596 |
| 0.556 | 0.481 | 0.571 | 0.188 | 0.455 |
| 0.65  | 0.441 | 0.666 | 0.427 | 0.686 |
| 0.562 | 0.647 | 0.571 | 0.486 | 0.506 |
| 0.62  | 0.792 | 0.712 | 0.887 | 0.68  |
| 0.732 | 0.478 | 0.799 | 0.594 | 0.682 |
| 0.752 | 0.582 | 0.806 | 0.725 | 0.68  |
| 0.687 | 0.443 | 0.684 | 0.435 | 0.698 |
| 0.604 | 0.176 | 0.45  | 0.4   | 0.704 |
| 0.73  | 0.535 | 0.765 | 0.367 | 0.694 |
| 0.786 | 0.393 | 0.757 | 0.414 | 0.67  |
| 0.701 | 0.5   | 0.657 | 0.391 | 0.718 |
| 0.686 | 0.5   | 0.688 | 0.683 | 0.686 |
| 0.744 | 0.43  | 0.636 | 0.455 | 0.705 |
| 0.697 | 0.448 | 0.635 | 0.433 | 0.719 |
| 0.626 | 0.489 | 0.634 | 0.234 | 0.454 |
| 0.644 | 0.507 | 0.643 | 0.23  | 0.508 |
| 0.412 | 0.694 | 0.567 | 0.391 | 0.502 |
| 0.036 | 0.005 | 0.401 | 0.113 | 0.372 |
| 0.042 | 0     | 0.235 | 0.017 | 0.172 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.024 | 0     | 0.376 | 0.007 | 0.15  |
| 0.044 | 0     | 0.275 | 0.054 | 0.21  |
| 0.49  | 0.707 | 0.507 | 0.316 | 0.438 |
| 0.512 | 0.39  | 0.437 | 0.532 | 0.384 |
| 0.048 | 0.01  | 0.55  | 0.134 | 0.25  |
| 0.274 | 0.017 | 0.468 | 0.315 | 0.382 |
| 0.556 | 0.032 | 0.422 | 0.158 | 0.526 |
| 0.53  | 0.065 | 0.398 | 0.336 | 0.426 |
| 0.428 | 0.046 | 0.467 | 0.295 | 0.596 |
| 0.462 | 0.026 | 0.461 | 0.199 | 0.642 |
| 0.658 | 0.64  | 0.679 | 0.622 | 0.56  |
| 0.67  | 0.025 | 0.581 | 0.167 | 0.608 |
| 0.586 | 0.038 | 0.349 | 0.175 | 0.588 |
| 0.48  | 0.061 | 0.387 | 0.299 | 0.452 |
| 0.641 | 0.031 | 0.378 | 0.105 | 0.652 |
| 0.492 | 0.08  | 0.28  | 0.202 | 0.53  |
| 0.659 | 0.073 | 0.337 | 0.331 | 0.508 |
| 0.456 | 0.019 | 0.412 | 0.125 | 0.572 |
| 0.553 | 0.069 | 0.352 | 0.33  | 0.644 |
| 0.59  | 0.043 | 0.493 | 0.367 | 0.704 |
| 0.575 | 0.04  | 0.392 | 0.219 | 0.556 |
| 0.072 | 0.034 | 0.883 | 0.021 | 0.196 |
| 0.565 | 0.052 | 0.459 | 0.269 | 0.608 |
| 0.358 | 0.038 | 0.619 | 0.351 | 0.678 |
| 0.37  | 0.023 | 0.358 | 0.236 | 0.664 |
| 0.467 | 0.013 | 0.475 | 0.286 | 0.652 |
| 0.659 | 0.02  | 0.45  | 0.215 | 0.64  |
| 0.738 | 0.667 | 0.702 | 0.796 | 0.518 |
| 0.4   | 0.006 | 0.417 | 0.084 | 0.598 |
| 0.494 | 0.043 | 0.424 | 0.488 | 0.488 |
| 0.404 | 0.012 | 0.283 | 0.183 | 0.586 |
| 0.48  | 0.061 | 0.387 | 0.299 | 0.452 |
| 0.641 | 0.031 | 0.378 | 0.105 | 0.652 |
| 0.518 | 0.439 | 0.538 | 0.162 | 0.522 |
| 0.498 | 0.465 | 0.369 | 0.172 | 0.534 |
| 0.522 | 0.375 | 0.522 | 0.279 | 0.54  |
| 0.542 | 0.532 | 0.447 | 0.259 | 0.514 |
| 0.382 | 0.062 | 0.769 | 0.344 | 0.752 |
| 0.541 | 0.404 | 0.644 | 0.593 | 0.506 |
| 0.46  | 0.186 | 0.326 | 0.087 | 0.404 |
| 0.56  | 0.229 | 0.473 | 0.215 | 0.406 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.588 | 0.18  | 0.472 | 0.195 | 0.413 |
| 0.37  | 0.12  | 0.631 | 0.124 | 0.412 |
| 0.526 | 0.239 | 0.618 | 0.105 | 0.478 |
| 0.562 | 0.162 | 0.638 | 0.171 | 0.624 |
| 0.522 | 0.533 | 0.442 | 0.087 | 0.458 |
| 0.542 | 0.416 | 0.485 | 0.129 | 0.574 |
| 0.613 | 0.023 | 0.339 | 0.17  | 0.566 |
| 0.556 | 0.032 | 0.422 | 0.158 | 0.526 |
| 0.182 | 0.031 | 0.485 | 0.267 | 0.562 |
| 0.402 | 0.053 | 0.371 | 0.261 | 0.576 |
| 0.13  | 0.06  | 0.343 | 0.322 | 0.268 |
| 0.934 | 0.144 | 0.251 | 0.189 | 0.879 |
| 0.196 | 0.021 | 0.383 | 0.441 | 0.356 |
| 0.716 | 0.004 | 0.369 | 0.17  | 0.53  |
| 0.204 | 0.124 | 0.472 | 0.62  | 0.57  |
| 0.324 | 0.129 | 0.424 | 0.494 | 0.57  |
| 0.67  | 0.025 | 0.581 | 0.167 | 0.608 |
| 0.628 | 0.029 | 0.283 | 0.083 | 0.653 |
| 0.631 | 0.018 | 0.442 | 0.224 | 0.652 |
| 0.656 | 0.019 | 0.392 | 0.094 | 0.652 |
| 0.482 | 0.027 | 0.377 | 0.229 | 0.466 |
| 0.639 | 0.072 | 0.35  | 0.217 | 0.524 |
| 0.437 | 0.005 | 0.208 | 0.151 | 0.404 |
| 0.706 | 0.645 | 0.699 | 0.665 | 0.582 |
| 0.502 | 0.003 | 0.587 | 0.028 | 0.834 |
| 0.542 | 0.034 | 0.391 | 0.353 | 0.436 |
| 0.468 | 0.014 | 0.343 | 0.077 | 0.672 |
| 0.537 | 0.009 | 0.357 | 0.126 | 0.61  |
| 0.631 | 0.021 | 0.415 | 0.127 | 0.646 |
| 0.565 | 0.356 | 0.337 | 0.09  | 0.266 |
| 0.418 | 0.009 | 0.473 | 0.037 | 0.498 |
| 0.598 | 0.244 | 0.561 | 0.492 | 0.59  |
| 0.619 | 0.159 | 0.384 | 0.166 | 0.474 |
| 0.696 | 0.19  | 0.502 | 0.349 | 0.652 |
| 0.726 | 0.302 | 0.631 | 0.463 | 0.711 |
| 0.444 | 0.003 | 0.265 | 0.1   | 0.38  |
| 0.714 | 0.686 | 0.655 | 0.758 | 0.46  |
| 0.156 | 0.009 | 0.49  | 0.081 | 0.424 |
| 0.114 | 0.138 | 0.664 | 0.463 | 0.506 |
| 0.582 | 0.662 | 0.436 | 0.589 | 0.49  |
| 0.618 | 0.017 | 0.315 | 0.131 | 0.49  |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.479 | 0.011 | 0.397 | 0.201 | 0.632 |
| 0.594 | 0.431 | 0.723 | 0.427 | 0.546 |
| 0.676 | 0.46  | 0.671 | 0.701 | 0.648 |
| 0.6   | 0.604 | 0.591 | 0.669 | 0.528 |
| 0.526 | 0.409 | 0.522 | 0.335 | 0.418 |
| 0.592 | 0.417 | 0.486 | 0.599 | 0.516 |
| 0.54  | 0.242 | 0.405 | 0.257 | 0.424 |
| 0.755 | 0.378 | 0.562 | 0.62  | 0.729 |
| 0.594 | 0.464 | 0.656 | 0.595 | 0.526 |
| 0.716 | 0.437 | 0.73  | 0.542 | 0.659 |
| 0.654 | 0.336 | 0.591 | 0.273 | 0.515 |
| 0.696 | 0.267 | 0.595 | 0.484 | 0.649 |
| 0.597 | 0.319 | 0.795 | 0.426 | 0.692 |
| 0.576 | 0.288 | 0.65  | 0.2   | 0.494 |
| 0.651 | 0.43  | 0.752 | 0.389 | 0.636 |
| 0.522 | 0.174 | 0.633 | 0.237 | 0.634 |
| 0.572 | 0.158 | 0.68  | 0.374 | 0.67  |
| 0.556 | 0.15  | 0.513 | 0.157 | 0.498 |
| 0.63  | 0.277 | 0.507 | 0.21  | 0.472 |
| 0.696 | 0.257 | 0.495 | 0.236 | 0.536 |
| 0.724 | 0.33  | 0.616 | 0.397 | 0.662 |
| 0.51  | 0.273 | 0.674 | 0.419 | 0.589 |
| 0.624 | 0.779 | 0.601 | 0.888 | 0.724 |
| 0.434 | 0.699 | 0.572 | 0.47  | 0.532 |
| 0.444 | 0.521 | 0.547 | 0.139 | 0.454 |
| 0.4   | 0.5   | 0.489 | 0.133 | 0.456 |
| 0.526 | 0.738 | 0.624 | 0.457 | 0.564 |
| 0.432 | 0.367 | 0.495 | 0.467 | 0.512 |
| 0.416 | 0.5   | 0.466 | 0.389 | 0.532 |
| 0.398 | 0.309 | 0.373 | 0.091 | 0.486 |
| 0.616 | 0.401 | 0.487 | 0.414 | 0.532 |
| 0.491 | 0.218 | 0.554 | 0.428 | 0.394 |
| 0.434 | 0.699 | 0.572 | 0.47  | 0.532 |
| 0.4   | 0.5   | 0.489 | 0.133 | 0.456 |
| 0.562 | 0.744 | 0.711 | 0.881 | 0.59  |
| 0.536 | 0.562 | 0.635 | 0.863 | 0.582 |
| 0.662 | 0.726 | 0.664 | 0.944 | 0.712 |
| 0.636 | 0.763 | 0.649 | 0.926 | 0.72  |
| 0.588 | 0.726 | 0.539 | 0.853 | 0.592 |
| 0.646 | 0.716 | 0.626 | 0.926 | 0.742 |
| 0.588 | 0.632 | 0.516 | 0.625 | 0.546 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.564 | 0.492 | 0.55  | 0.759 | 0.726 |
| 0.588 | 0.381 | 0.453 | 0.608 | 0.496 |
| 0.516 | 0.164 | 0.429 | 0.263 | 0.386 |
| 0.736 | 0.166 | 0.398 | 0.587 | 0.72  |
| 0.663 | 0.273 | 0.527 | 0.551 | 0.636 |
| 0.626 | 0.145 | 0.466 | 0.248 | 0.461 |
| 0.696 | 0.768 | 0.599 | 0.902 | 0.71  |
| 0.76  | 0.373 | 0.737 | 0.322 | 0.676 |
| 0.506 | 0.211 | 0.353 | 0.056 | 0.484 |
| 0.45  | 0.569 | 0.518 | 0.735 | 0.444 |
| 0.492 | 0.451 | 0.515 | 0.417 | 0.47  |
| 0.58  | 0.427 | 0.576 | 0.338 | 0.526 |
| 0.578 | 0.406 | 0.575 | 0.338 | 0.502 |
| 0.612 | 0.061 | 0.629 | 0.113 | 0.558 |
| 0.687 | 0.393 | 0.671 | 0.372 | 0.664 |
| 0.744 | 0.256 | 0.491 | 0.626 | 0.688 |
| 0.614 | 0.624 | 0.569 | 0.911 | 0.72  |
| 0.522 | 0.447 | 0.556 | 0.403 | 0.567 |
| 0.51  | 0.273 | 0.674 | 0.419 | 0.589 |
| 0.512 | 0.507 | 0.538 | 0.445 | 0.568 |
| 0.674 | 0.077 | 0.495 | 0.332 | 0.508 |
| 0.462 | 0.731 | 0.553 | 0.308 | 0.562 |
| 0.41  | 0.388 | 0.571 | 0.565 | 0.754 |
| 0.432 | 0.025 | 0.484 | 0.304 | 0.548 |
| 0.62  | 0.652 | 0.601 | 0.614 | 0.556 |
| 0.465 | 0.022 | 0.275 | 0.141 | 0.296 |
| 0.252 | 0.029 | 0.582 | 0.048 | 0.35  |
| 0.706 | 0.159 | 0.495 | 0.682 | 0.616 |
| 0.456 | 0.256 | 0.451 | 0.281 | 0.312 |
| 0.38  | 0.212 | 0.782 | 0.332 | 0.593 |
| 0.521 | 0.013 | 0.294 | 0.166 | 0.449 |
| 0.21  | 0.085 | 0.436 | 0.177 | 0.274 |
| 0.53  | 0.074 | 0.447 | 0.371 | 0.484 |
| 0.316 | 0.007 | 0.555 | 0.143 | 0.478 |
| 0.436 | 0.014 | 0.252 | 0.074 | 0.574 |
| 0.14  | 0.091 | 0.285 | 0.244 | 0.27  |
| 0.132 | 0.131 | 0.407 | 0.209 | 0.348 |
| 0.6   | 0.449 | 0.648 | 0.287 | 0.546 |
| 0.604 | 0.469 | 0.727 | 0.469 | 0.496 |
| 0.676 | 0.46  | 0.671 | 0.701 | 0.648 |
| 0.586 | 0.556 | 0.402 | 0.575 | 0.472 |



|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.576 | 0.076 | 0.519 | 0.192 | 0.881 |
| 0.51  | 0.082 | 0.544 | 0.261 | 0.759 |
| 0.514 | 0.321 | 0.389 | 0.242 | 0.38  |
| 0.65  | 0.16  | 0.621 | 0.224 | 0.548 |
| 0.034 | 0.183 | 0.696 | 0.329 | 0.392 |
| 0.546 | 0.438 | 0.587 | 0.676 | 0.696 |
| 0.564 | 0.615 | 0.495 | 0.655 | 0.644 |
| 0.55  | 0.653 | 0.647 | 0.862 | 0.592 |
| 0.556 | 0.02  | 0.383 | 0.289 | 0.584 |
| 0.676 | 0.312 | 0.504 | 0.495 | 0.686 |
| 0.705 | 0.479 | 0.606 | 0.547 | 0.702 |
| 0.734 | 0.535 | 0.911 | 0.64  | 0.708 |
| 0.73  | 0.418 | 0.748 | 0.339 | 0.612 |
| 0.818 | 0.281 | 0.844 | 0.56  | 0.766 |
| 0.732 | 0.451 | 0.656 | 0.375 | 0.586 |
| 0.75  | 0.482 | 0.819 | 0.639 | 0.738 |
| 0.856 | 0.388 | 0.91  | 0.612 | 0.79  |
| 0.761 | 0.238 | 0.764 | 0.465 | 0.748 |
| 0.73  | 0.418 | 0.748 | 0.339 | 0.612 |
| 0.701 | 0.354 | 0.741 | 0.279 | 0.556 |
| 0.734 | 0.363 | 0.694 | 0.339 | 0.608 |
| 0.492 | 0.077 | 0.411 | 0.15  | 0.698 |
| 0.476 | 0.268 | 0.418 | 0.184 | 0.562 |
| 0.458 | 0.232 | 0.455 | 0.569 | 0.686 |
| 0.408 | 0.345 | 0.617 | 0.14  | 0.476 |
| 0.616 | 0.509 | 0.345 | 0.554 | 0.53  |
| 0.714 | 0.544 | 0.351 | 0.34  | 0.634 |
| 0.661 | 0.48  | 0.414 | 0.426 | 0.613 |
| 0.759 | 0.345 | 0.56  | 0.343 | 0.756 |
| 0.12  | 0.006 | 0.317 | 0.103 | 0.17  |
| 0.39  | 0.242 | 0.518 | 0.905 | 0.44  |
| 0.394 | 0.197 | 0.419 | 0.686 | 0.338 |
| 0.474 | 0.087 | 0.426 | 0.487 | 0.377 |
| 0.112 | 0.008 | 0.396 | 0.081 | 0.42  |
| 0.128 | 0.011 | 0.429 | 0.14  | 0.378 |
| 0.082 | 0.055 | 0.666 | 0.137 | 0.382 |
| 0.932 | 0.042 | 0.621 | 0.092 | 0.845 |
| 0.228 | 0.002 | 0.458 | 0.135 | 0.614 |
| 0.584 | 0.5   | 0.361 | 0.109 | 0.698 |
| 0.732 | 0.582 | 0.713 | 0.5   | 0.592 |
| 0.36  | 0.143 | 0.736 | 0.605 | 0.804 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.116 | 0.006 | 0.295 | 0.071 | 0.196 |
| 0.044 | 0.002 | 0.338 | 0.014 | 0.274 |
| 0.1   | 0.003 | 0.413 | 0.036 | 0.376 |
| 0.114 | 0.001 | 0.268 | 0.006 | 0.31  |
| 0.646 | 0.685 | 0.457 | 0.72  | 0.428 |
| 0.45  | 0.165 | 0.955 | 0.414 | 0.678 |
| 0.476 | 0.189 | 0.858 | 0.438 | 0.468 |
| 0.548 | 0.006 | 0.262 | 0.059 | 0.653 |
| 0.437 | 0.005 | 0.208 | 0.151 | 0.404 |
| 0.676 | 0.262 | 0.48  | 0.25  | 0.556 |
| 0.662 | 0.448 | 0.462 | 0.389 | 0.492 |
| 0.492 | 0.187 | 0.605 | 0.126 | 0.544 |
| 0.012 | 0.009 | 0.341 | 0.139 | 0.15  |
| 0.29  | 0.047 | 0.465 | 0.518 | 0.58  |
| 0.848 | 0.425 | 0.33  | 0.532 | 0.838 |
| 0.464 | 0.053 | 0.453 | 0.176 | 0.466 |
| 0.636 | 0.127 | 0.342 | 0.464 | 0.496 |
| 0.422 | 0.026 | 0.387 | 0.109 | 0.516 |
| 0.424 | 0.004 | 0.28  | 0.102 | 0.627 |
| 0.498 | 0.042 | 0.467 | 0.157 | 0.65  |
| 0.426 | 0.028 | 0.512 | 0.133 | 0.654 |
| 0.498 | 0.322 | 0.516 | 0.274 | 0.712 |
| 0.635 | 0.045 | 0.264 | 0.17  | 0.421 |
| 0.6   | 0.554 | 0.514 | 0.621 | 0.514 |
| 0.378 | 0.019 | 0.71  | 0.239 | 0.614 |
| 0.488 | 0.482 | 0.389 | 0.544 | 0.638 |
| 0.034 | 0.183 | 0.696 | 0.329 | 0.392 |
| 0.082 | 0.055 | 0.666 | 0.137 | 0.382 |
| 0.753 | 0.385 | 0.774 | 0.542 | 0.724 |
| 0.03  | 0.168 | 0.686 | 0.329 | 0.408 |
| 0.088 | 0.042 | 0.704 | 0.26  | 0.272 |
| 0.058 | 0.128 | 0.453 | 0.44  | 0.212 |
| 0.454 | 0.76  | 0.484 | 0.231 | 0.525 |
| 0.706 | 0.021 | 0.585 | 0.012 | 0.665 |
| 0.522 | 0.617 | 0.478 | 0.339 | 0.516 |
| 0.144 | 0.078 | 0.438 | 0.069 | 0.308 |
| 0.174 | 0.004 | 0.401 | 0.018 | 0.386 |
| 0.447 | 0.006 | 0.261 | 0.049 | 0.347 |
| 0.42  | 0.048 | 0.286 | 0.109 | 0.299 |
| 0.07  | 0.005 | 0.439 | 0.049 | 0.42  |
| 0.056 | 0.014 | 0.445 | 0.095 | 0.412 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.28  | 0.027 | 0.467 | 0.414 | 0.424 |
| 0.7   | 0.541 | 0.738 | 0.529 | 0.638 |
| 0.086 | 0.009 | 0.44  | 0.152 | 0.394 |
| 0.236 | 0.008 | 0.409 | 0.305 | 0.606 |
| 0.39  | 0.059 | 0.656 | 0.328 | 0.598 |
| 0.266 | 0.011 | 0.361 | 0.092 | 0.462 |
| 0.142 | 0.006 | 0.418 | 0.226 | 0.32  |
| 0.184 | 0.032 | 0.449 | 0.209 | 0.466 |
| 0.428 | 0.203 | 0.644 | 0.109 | 0.272 |
| 0.432 | 0.036 | 0.268 | 0.094 | 0.552 |
| 0.554 | 0.007 | 0.791 | 0.245 | 0.63  |
| 0.244 | 0.163 | 0.401 | 0.218 | 0.314 |
| 0.192 | 0.055 | 0.377 | 0.223 | 0.25  |
| 0.062 | 0.104 | 0.979 | 0.038 | 0.214 |
| 0.559 | 0.031 | 0.39  | 0.116 | 0.549 |
| 0.328 | 0.071 | 0.496 | 0.124 | 0.542 |
| 0.636 | 0.17  | 0.521 | 0.333 | 0.664 |
| 0.67  | 0.266 | 0.486 | 0.434 | 0.666 |
| 0.606 | 0.333 | 0.503 | 0.544 | 0.752 |
| 0.658 | 0.289 | 0.578 | 0.565 | 0.674 |
| 0.524 | 0.044 | 0.504 | 0.553 | 0.818 |
| 0.076 | 0.006 | 0.464 | 0.197 | 0.274 |
| 0.142 | 0.009 | 0.382 | 0.078 | 0.212 |
| 0.106 | 0.001 | 0.4   | 0.038 | 0.168 |
| 0.528 | 0.152 | 0.766 | 0.313 | 0.306 |
| 0.408 | 0.03  | 0.337 | 0.39  | 0.323 |
| 0.384 | 0.088 | 0.403 | 0.369 | 0.372 |
| 0.052 | 0     | 0.267 | 0.014 | 0.242 |
| 0.106 | 0.011 | 0.439 | 0.094 | 0.204 |
| 0.084 | 0.051 | 0.718 | 0.26  | 0.256 |
| 0.062 | 0.001 | 0.259 | 0.02  | 0.34  |
| 0.362 | 0.025 | 0.593 | 0.342 | 0.63  |
| 0.444 | 0.065 | 0.524 | 0.49  | 0.406 |
| 0.09  | 0.014 | 0.634 | 0.26  | 0.28  |
| 0.116 | 0.006 | 0.472 | 0.157 | 0.274 |
| 0.77  | 0.449 | 0.855 | 0.604 | 0.736 |
| 0.108 | 0.006 | 0.356 | 0.09  | 0.2   |
| 0.37  | 0.105 | 0.552 | 0.31  | 0.49  |
| 0.146 | 0.025 | 0.462 | 0.15  | 0.264 |
| 0.262 | 0.012 | 0.322 | 0.035 | 0.266 |
| 0.266 | 0.365 | 0.354 | 0.22  | 0.3   |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.266 | 0.13  | 0.486 | 0.244 | 0.582 |
| 0.034 | 0.183 | 0.696 | 0.329 | 0.392 |
| 0.082 | 0.055 | 0.666 | 0.137 | 0.382 |
| 0.597 | 0.253 | 0.734 | 0.426 | 0.692 |
| 0.646 | 0.716 | 0.626 | 0.926 | 0.742 |
| 0.588 | 0.726 | 0.539 | 0.853 | 0.592 |
| 0.466 | 0.379 | 0.556 | 0.471 | 0.418 |
| 0.532 | 0.375 | 0.656 | 0.458 | 0.498 |
| 0.034 | 0.183 | 0.696 | 0.329 | 0.392 |
| 0.732 | 0.381 | 0.551 | 0.543 | 0.857 |
| 0.368 | 0.004 | 0.653 | 0.256 | 0.754 |
| 0.378 | 0.019 | 0.71  | 0.239 | 0.614 |
| 0.03  | 0.069 | 0.957 | 0.045 | 0.18  |
| 0.526 | 0.738 | 0.624 | 0.457 | 0.564 |
| 0.428 | 0.06  | 0.626 | 0.639 | 0.38  |
| 0.635 | 0.5   | 0.687 | 0.47  | 0.554 |
| 0.722 | 0.607 | 0.706 | 0.692 | 0.625 |
| 0.629 | 0.5   | 0.712 | 0.47  | 0.626 |
| 0.71  | 0.605 | 0.725 | 0.692 | 0.677 |
| 0.352 | 0.049 | 0.456 | 0.064 | 0.37  |
| 0.392 | 0.011 | 0.504 | 0.309 | 0.824 |
| 0.302 | 0.045 | 0.749 | 0.414 | 0.568 |
| 0.294 | 0.05  | 0.394 | 0.142 | 0.566 |
| 0.458 | 0.181 | 0.542 | 0.373 | 0.784 |
| 0.082 | 0.055 | 0.666 | 0.137 | 0.382 |
| 0.26  | 0.003 | 0.399 | 0.199 | 0.624 |
| 0.024 | 0.101 | 0.628 | 0.329 | 0.43  |
| 0.52  | 0.035 | 0.616 | 0.312 | 0.604 |
| 0.76  | 0.332 | 0.729 | 0.634 | 0.754 |
| 0.73  | 0.472 | 0.611 | 0.373 | 0.626 |
| 0.366 | 0.282 | 0.509 | 0.637 | 0.638 |
| 0.304 | 0.044 | 0.276 | 0.101 | 0.366 |
| 0.344 | 0.017 | 0.342 | 0.215 | 0.634 |
| 0.238 | 0.007 | 0.288 | 0.012 | 0.37  |
| 0.444 | 0.08  | 0.49  | 0.525 | 0.611 |
| 0.256 | 0.071 | 0.442 | 0.52  | 0.398 |
| 0.106 | 0.007 | 0.483 | 0.134 | 0.426 |
| 0.814 | 0.045 | 0.929 | 0.281 | 0.886 |
| 0.1   | 0.002 | 0.442 | 0.08  | 0.244 |
| 0.148 | 0.004 | 0.385 | 0.034 | 0.394 |
| 0.096 | 0.001 | 0.342 | 0.005 | 0.318 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.532 | 0.102 | 0.474 | 0.257 | 0.282 |
| 0.266 | 0.015 | 0.495 | 0.191 | 0.746 |
| 0.4   | 0.049 | 0.303 | 0.109 | 0.425 |
| 0.565 | 0.454 | 0.561 | 0.429 | 0.579 |
| 0.52  | 0.348 | 0.494 | 0.204 | 0.512 |
| 0.63  | 0.587 | 0.518 | 0.816 | 0.736 |
| 0.636 | 0.596 | 0.494 | 0.486 | 0.564 |
| 0.706 | 0.419 | 0.478 | 0.665 | 0.682 |
| 0.72  | 0.29  | 0.41  | 0.712 | 0.74  |
| 0.55  | 0.242 | 0.413 | 0.231 | 0.444 |
| 0.626 | 0.588 | 0.605 | 0.847 | 0.712 |
| 0.624 | 0.293 | 0.397 | 0.196 | 0.461 |
| 0.072 | 0.034 | 0.883 | 0.021 | 0.196 |
| 0.616 | 0.008 | 0.402 | 0.075 | 0.69  |
| 0.308 | 0.283 | 0.475 | 0.328 | 0.443 |
| 0.529 | 0.015 | 0.306 | 0.052 | 0.6   |
| 0.484 | 0.74  | 0.575 | 0.47  | 0.532 |
| 0.068 | 0.028 | 0.881 | 0.021 | 0.208 |
| 0.276 | 0.01  | 0.737 | 0.146 | 0.57  |
| 0.08  | 0.011 | 0.296 | 0.063 | 0.27  |
| 0.496 | 0.049 | 0.54  | 0.531 | 0.61  |
| 0.382 | 0.024 | 0.356 | 0.262 | 0.616 |
| 0.73  | 0.535 | 0.765 | 0.367 | 0.694 |
| 0.722 | 0.049 | 0.358 | 0.094 | 0.682 |
| 0.498 | 0.337 | 0.643 | 0.49  | 0.8   |
| 0.308 | 0.013 | 0.336 | 0.301 | 0.832 |
| 0.32  | 0.049 | 0.431 | 0.145 | 0.44  |
| 0.474 | 0.083 | 0.579 | 0.126 | 0.648 |
| 0.492 | 0.362 | 0.583 | 0.354 | 0.532 |
| 0.53  | 0.074 | 0.447 | 0.371 | 0.484 |
| 0.316 | 0.007 | 0.555 | 0.143 | 0.478 |
| 0.082 | 0.055 | 0.666 | 0.137 | 0.382 |
| 0.514 | 0.049 | 0.614 | 0.06  | 0.454 |
| 0.082 | 0.055 | 0.666 | 0.137 | 0.382 |
| 0.657 | 0.039 | 0.365 | 0.188 | 0.568 |
| 0.473 | 0.015 | 0.317 | 0.233 | 0.694 |
| 0.326 | 0.049 | 0.503 | 0.061 | 0.31  |
| 0.436 | 0.317 | 0.516 | 0.357 | 0.454 |
|       |       |       |       |       |
|       |       |       |       |       |
|       |       |       |       |       |

|         | <b>Metabolites after MDS using CDK (165) (used for MDS using ADMET)</b> |         |        |          |
|---------|---|---------|--------|----------|
| A4-Subs | C9-In   | C9-Subs | C19-In | C19-Subs |
| 0.514   | 0.041   | 0.68    | 0.708  | 0.494    |
| 0.696   | 0.619   | 0.791   | 0.661  | 0.638    |
| 0.458   | 0.368   | 0.458   | 0.5    | 0.444    |
| 0.64    | 0.371   | 0.462   | 0.494  | 0.53     |
| 0.64    | 0.492   | 0.626   | 0.486  | 0.614    |
| 0.362   | 0.054   | 0.481   | 0.643  | 0.392    |
| 0.65    | 0.063   | 0.628   | 0.181  | 0.708    |
| 0.556   | 0.607   | 0.581   | 0.558  | 0.42     |
| 0.49    | 0.707   | 0.507   | 0.316  | 0.438    |
| 0.622   | 0.046   | 0.53    | 0.194  | 0.602    |
| 0.512   | 0.39  | 0.437   | 0.532  | 0.384    |
| 0.55    | 0.759   | 0.697   | 0.875  | 0.688    |
| 0.636   | 0.398   | 0.685   | 0.436  | 0.53     |
| 0.616   | 0.55  | 0.582   | 0.547  | 0.662    |
| 0.659   | 0.5   | 0.682   | 0.772  | 0.728    |
| 0.604   | 0.542   | 0.624   | 0.555  | 0.548    |
| 0.618   | 0.772   | 0.683   | 0.821  | 0.666    |
| 0.682   | 0.078   | 0.56    | 0.121  | 0.596    |
| 0.556   | 0.481   | 0.571   | 0.188  | 0.455    |
| 0.732   | 0.478   | 0.799   | 0.594  | 0.682    |
| 0.752   | 0.582   | 0.806   | 0.725  | 0.68     |
| 0.687   | 0.443   | 0.684   | 0.435  | 0.698    |
| 0.73    | 0.535   | 0.765   | 0.367  | 0.694    |
| 0.786   | 0.393   | 0.757   | 0.414  | 0.67     |
| 0.701   | 0.5   | 0.657   | 0.391  | 0.718    |
| 0.686   | 0.5   | 0.688   | 0.683  | 0.686    |
| 0.744   | 0.43  | 0.636   | 0.455  | 0.705    |
| 0.697   | 0.448   | 0.635   | 0.433  | 0.719    |
| 0.412   | 0.694   | 0.567   | 0.391  | 0.502    |
| 0.49    | 0.707   | 0.507   | 0.316  | 0.438    |
| 0.67    | 0.025   | 0.581   | 0.167  | 0.608    |
| 0.575   | 0.04  | 0.392   | 0.219  | 0.556    |
| 0.072   | 0.034   | 0.883   | 0.021  | 0.196    |
| 0.358   | 0.038   | 0.619   | 0.351  | 0.678    |
| 0.542   | 0.532   | 0.447   | 0.259  | 0.514    |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.382 | 0.062 | 0.769 | 0.344 | 0.752 |
| 0.541 | 0.404 | 0.644 | 0.593 | 0.506 |
| 0.526 | 0.239 | 0.618 | 0.105 | 0.478 |
| 0.562 | 0.162 | 0.638 | 0.171 | 0.624 |
| 0.67  | 0.025 | 0.581 | 0.167 | 0.608 |
| 0.598 | 0.244 | 0.561 | 0.492 | 0.59  |
| 0.696 | 0.19  | 0.502 | 0.349 | 0.652 |
| 0.726 | 0.302 | 0.631 | 0.463 | 0.711 |
| 0.594 | 0.431 | 0.723 | 0.427 | 0.546 |
| 0.676 | 0.46  | 0.671 | 0.701 | 0.648 |
| 0.6   | 0.604 | 0.591 | 0.669 | 0.528 |
| 0.526 | 0.409 | 0.522 | 0.335 | 0.418 |
| 0.592 | 0.417 | 0.486 | 0.599 | 0.516 |
| 0.54  | 0.242 | 0.405 | 0.257 | 0.424 |
| 0.755 | 0.378 | 0.562 | 0.62  | 0.729 |
| 0.594 | 0.464 | 0.656 | 0.595 | 0.526 |
| 0.716 | 0.437 | 0.73  | 0.542 | 0.659 |
| 0.654 | 0.336 | 0.591 | 0.273 | 0.515 |
| 0.696 | 0.267 | 0.595 | 0.484 | 0.649 |
| 0.597 | 0.319 | 0.795 | 0.426 | 0.692 |
| 0.651 | 0.43  | 0.752 | 0.389 | 0.636 |
| 0.522 | 0.174 | 0.633 | 0.237 | 0.634 |
| 0.572 | 0.158 | 0.68  | 0.374 | 0.67  |
| 0.696 | 0.257 | 0.495 | 0.236 | 0.536 |
| 0.724 | 0.33  | 0.616 | 0.397 | 0.662 |
| 0.624 | 0.779 | 0.601 | 0.888 | 0.724 |
| 0.526 | 0.738 | 0.624 | 0.457 | 0.564 |
| 0.432 | 0.367 | 0.495 | 0.467 | 0.512 |
| 0.416 | 0.5   | 0.466 | 0.389 | 0.532 |
| 0.616 | 0.401 | 0.487 | 0.414 | 0.532 |
| 0.434 | 0.699 | 0.572 | 0.47  | 0.532 |
| 0.562 | 0.744 | 0.711 | 0.881 | 0.59  |
| 0.536 | 0.562 | 0.635 | 0.863 | 0.582 |
| 0.662 | 0.726 | 0.664 | 0.944 | 0.712 |
| 0.636 | 0.763 | 0.649 | 0.926 | 0.72  |
| 0.588 | 0.726 | 0.539 | 0.853 | 0.592 |
| 0.646 | 0.716 | 0.626 | 0.926 | 0.742 |
| 0.564 | 0.492 | 0.55  | 0.759 | 0.726 |
| 0.588 | 0.381 | 0.453 | 0.608 | 0.496 |
| 0.736 | 0.166 | 0.398 | 0.587 | 0.72  |
| 0.663 | 0.273 | 0.527 | 0.551 | 0.636 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.626 | 0.145 | 0.466 | 0.248 | 0.461 |
| 0.696 | 0.768 | 0.599 | 0.902 | 0.71  |
| 0.612 | 0.061 | 0.629 | 0.113 | 0.558 |
| 0.744 | 0.256 | 0.491 | 0.626 | 0.688 |
| 0.614 | 0.624 | 0.569 | 0.911 | 0.72  |
| 0.674 | 0.077 | 0.495 | 0.332 | 0.508 |
| 0.465 | 0.022 | 0.275 | 0.141 | 0.296 |
| 0.706 | 0.159 | 0.495 | 0.682 | 0.616 |
| 0.521 | 0.013 | 0.294 | 0.166 | 0.449 |
| 0.14  | 0.091 | 0.285 | 0.244 | 0.27  |
| 0.132 | 0.131 | 0.407 | 0.209 | 0.348 |
| 0.6   | 0.449 | 0.648 | 0.287 | 0.546 |
| 0.604 | 0.469 | 0.727 | 0.469 | 0.496 |
| 0.676 | 0.46  | 0.671 | 0.701 | 0.648 |
| 0.586 | 0.556 | 0.402 | 0.575 | 0.472 |
| 0.51  | 0.082 | 0.544 | 0.261 | 0.759 |
| 0.65  | 0.16  | 0.621 | 0.224 | 0.548 |
| 0.546 | 0.438 | 0.587 | 0.676 | 0.696 |
| 0.564 | 0.615 | 0.495 | 0.655 | 0.644 |
| 0.55  | 0.653 | 0.647 | 0.862 | 0.592 |
| 0.676 | 0.312 | 0.504 | 0.495 | 0.686 |
| 0.705 | 0.479 | 0.606 | 0.547 | 0.702 |
| 0.734 | 0.535 | 0.911 | 0.64  | 0.708 |
| 0.73  | 0.418 | 0.748 | 0.339 | 0.612 |
| 0.818 | 0.281 | 0.844 | 0.56  | 0.766 |
| 0.732 | 0.451 | 0.656 | 0.375 | 0.586 |
| 0.75  | 0.482 | 0.819 | 0.639 | 0.738 |
| 0.856 | 0.388 | 0.91  | 0.612 | 0.79  |
| 0.761 | 0.238 | 0.764 | 0.465 | 0.748 |
| 0.73  | 0.418 | 0.748 | 0.339 | 0.612 |
| 0.701 | 0.354 | 0.741 | 0.279 | 0.556 |
| 0.734 | 0.363 | 0.694 | 0.339 | 0.608 |
| 0.458 | 0.232 | 0.455 | 0.569 | 0.686 |
| 0.39  | 0.242 | 0.518 | 0.905 | 0.44  |
| 0.394 | 0.197 | 0.419 | 0.686 | 0.338 |
| 0.474 | 0.087 | 0.426 | 0.487 | 0.377 |
| 0.584 | 0.5   | 0.361 | 0.109 | 0.698 |
| 0.36  | 0.143 | 0.736 | 0.605 | 0.804 |
| 0.45  | 0.165 | 0.955 | 0.414 | 0.678 |
| 0.476 | 0.189 | 0.858 | 0.438 | 0.468 |
| 0.548 | 0.006 | 0.262 | 0.059 | 0.653 |



|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.676 | 0.262 | 0.48  | 0.25  | 0.556 |
| 0.662 | 0.448 | 0.462 | 0.389 | 0.492 |
| 0.492 | 0.187 | 0.605 | 0.126 | 0.544 |
| 0.498 | 0.322 | 0.516 | 0.274 | 0.712 |
| 0.488 | 0.482 | 0.389 | 0.544 | 0.638 |
| 0.753 | 0.385 | 0.774 | 0.542 | 0.724 |
| 0.058 | 0.128 | 0.453 | 0.44  | 0.212 |
| 0.706 | 0.021 | 0.585 | 0.012 | 0.665 |
| 0.522 | 0.617 | 0.478 | 0.339 | 0.516 |
| 0.28  | 0.027 | 0.467 | 0.414 | 0.424 |
| 0.7   | 0.541 | 0.738 | 0.529 | 0.638 |
| 0.39  | 0.059 | 0.656 | 0.328 | 0.598 |
| 0.432 | 0.036 | 0.268 | 0.094 | 0.552 |
| 0.192 | 0.055 | 0.377 | 0.223 | 0.25  |
| 0.062 | 0.104 | 0.979 | 0.038 | 0.214 |
| 0.636 | 0.17  | 0.521 | 0.333 | 0.664 |
| 0.67  | 0.266 | 0.486 | 0.434 | 0.666 |
| 0.606 | 0.333 | 0.503 | 0.544 | 0.752 |
| 0.658 | 0.289 | 0.578 | 0.565 | 0.674 |
| 0.362 | 0.025 | 0.593 | 0.342 | 0.63  |
| 0.37  | 0.105 | 0.552 | 0.31  | 0.49  |
| 0.597 | 0.253 | 0.734 | 0.426 | 0.692 |
| 0.646 | 0.716 | 0.626 | 0.926 | 0.742 |
| 0.588 | 0.726 | 0.539 | 0.853 | 0.592 |
| 0.466 | 0.379 | 0.556 | 0.471 | 0.418 |
| 0.532 | 0.375 | 0.656 | 0.458 | 0.498 |
| 0.03  | 0.069 | 0.957 | 0.045 | 0.18  |
| 0.526 | 0.738 | 0.624 | 0.457 | 0.564 |
| 0.635 | 0.5   | 0.687 | 0.47  | 0.554 |
| 0.629 | 0.5   | 0.712 | 0.47  | 0.626 |
| 0.302 | 0.045 | 0.749 | 0.414 | 0.568 |
| 0.52  | 0.035 | 0.616 | 0.312 | 0.604 |
| 0.76  | 0.332 | 0.729 | 0.634 | 0.754 |
| 0.73  | 0.472 | 0.611 | 0.373 | 0.626 |
| 0.814 | 0.045 | 0.929 | 0.281 | 0.886 |
| 0.565 | 0.454 | 0.561 | 0.429 | 0.579 |
| 0.52  | 0.348 | 0.494 | 0.204 | 0.512 |
| 0.63  | 0.587 | 0.518 | 0.816 | 0.736 |
| 0.636 | 0.596 | 0.494 | 0.486 | 0.564 |
| 0.706 | 0.419 | 0.478 | 0.665 | 0.682 |
| 0.55  | 0.242 | 0.413 | 0.231 | 0.444 |

|       |   |       |       |       |
|-------|---|-------|-------|-------|
| 0.626 | 0.588   | 0.605 | 0.847 | 0.712 |
| 0.068 | 0.028   | 0.881 | 0.021 | 0.208 |
| 0.73  | 0.535   | 0.765 | 0.367 | 0.694 |
| 0.722 | 0.049   | 0.358 | 0.094 | 0.682 |
| 0.498 | 0.337   | 0.643 | 0.49  | 0.8   |
| 0.492 | 0.362   | 0.583 | 0.354 | 0.532 |
| 0.473 | 0.015   | 0.317 | 0.233 | 0.694 |
|       |   |       |       |       |
|       | <b>468 Metabolites and positive &amp; negative controls</b> |       |       |       |
|       |   |       |       |       |
| D6-In | D6-Subs   | T1/2  | CL    | hERG  |
| 0.536 | 0.626   | 1.753 | 1.856 | 0.478 |
| 0.574 | 0.49  | 1.574 | 2.144 | 0.876 |
| 0.699 | 0.563   | 1.812 | 1.932 | 0.98  |
| 0.715 | 0.588   | 1.855 | 1.875 | 0.982 |
| 0.504 | 0.499   | 1.64  | 2.134 | 0.849 |
| 0.592 | 0.383   | 2.186 | 1.346 | 0.966 |
| 0.755 | 0.278   | 1.627 | 1.776 | 1     |
| 0.747 | 0.288   | 1.702 | 1.684 | 0.968 |
| 0.613 | 0.407   | 1.896 | 1.425 | 0.861 |
| 0.508 | 0.395   | 0.866 | 2.155 | 0.655 |
| 0.53  | 0.994   | 1.418 | 2.631 | 0.26  |
| 0.503 | 0.756   | 1.495 | 1.668 | 0.248 |
| 0.562 | 0.868   | 1.647 | 2.458 | 0.443 |
| 0.631 | 0.512   | 2.193 | 1.761 | 0.978 |
| 0.684 | 0.344   | 1.801 | 1.732 | 0.994 |
| 0.696 | 0.639   | 2.154 | 1.513 | 0.69  |
| 0.692 | 0.469   | 2.032 | 1.55  | 0.98  |
| 0.12  | 0.469   | 1.411 | 1.3   | 0.354 |
| 0.702 | 0.679   | 2.142 | 1.552 | 0.648 |
| 0.619 | 0.483   | 1.59  | 2.031 | 0.873 |
| 0.535 | 0.681   | 1.777 | 2.178 | 0.433 |
| 0.761 | 0.172   | 1.479 | 1.678 | 0.998 |
| 0.472 | 0.71  | 1.398 | 1.916 | 0.152 |
| 0.463 | 0.965   | 1.47  | 2.442 | 0.341 |
| 0.45  | 0.907   | 1.207 | 2.644 | 0.304 |
| 0.614 | 0.465   | 2.97  | 1.124 | 0.962 |
| 0.468 | 0.584   | 1.097 | 2.281 | 0.487 |
| 0.631 | 0.512   | 2.193 | 1.761 | 0.978 |
| 0.418 | 0.681   | 1.772 | 1.804 | 0.52  |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.475 | 0.957 | 0.904 | 2.924 | 0.194 |
| 0.397 | 0.724 | 0.98  | 2.326 | 0.229 |
| 0.634 | 0.946 | 1.5   | 2.09  | 0.191 |
| 0.562 | 0.768 | 1.023 | 2.406 | 0.163 |
| 0.683 | 0.445 | 1.501 | 1.629 | 0.659 |
| 0.48  | 0.59  | 2.735 | 1.722 | 0.99  |
| 0.62  | 0.544 | 1.652 | 1.749 | 0.726 |
| 0.504 | 0.499 | 1.64  | 2.134 | 0.849 |
| 0.452 | 0.39  | 1.53  | 2.173 | 0.751 |
| 0.701 | 0.185 | 2.077 | 1.921 | 0.96  |
| 0.405 | 0.562 | 2.524 | 1.45  | 0.958 |
| 0.769 | 0.38  | 1.692 | 1.884 | 0.857 |
| 0.764 | 0.652 | 2.109 | 2.045 | 0.915 |
| 0.724 | 0.655 | 2.103 | 2.14  | 0.9   |
| 0.693 | 0.566 | 1.793 | 2.008 | 0.974 |
| 0.698 | 0.583 | 1.866 | 1.82  | 0.994 |
| 0.708 | 0.442 | 2.084 | 1.927 | 0.976 |
| 0.521 | 0.356 | 1.544 | 2.145 | 0.849 |
| 0.388 | 0.53  | 1.639 | 2.016 | 0.637 |
| 0.958 | 0.968 | 1.769 | 2.526 | 0.881 |
| 0.712 | 0.574 | 1.464 | 1.937 | 0.775 |
| 0.696 | 0.296 | 1.555 | 1.688 | 0.548 |
| 0.698 | 0.128 | 1.772 | 1.785 | 0.992 |
| 0.518 | 0.906 | 1.512 | 2.15  | 0.443 |
| 0.611 | 0.8   | 1.587 | 2.198 | 0.525 |
| 0.729 | 0.223 | 1.757 | 1.894 | 0.97  |
| 0.512 | 0.303 | 1.614 | 2.521 | 0.805 |
| 0.373 | 0.353 | 1.594 | 2.193 | 0.849 |
| 0.65  | 0.439 | 1.617 | 1.858 | 0.702 |
| 0.895 | 0.674 | 2.193 | 1.778 | 0.904 |
| 0.862 | 0.621 | 2.091 | 2.015 | 0.855 |
| 0.918 | 0.984 | 1.281 | 1.9   | 0.135 |
| 0.221 | 0.167 | 2.171 | 1.095 | 0.313 |
| 0.451 | 0.697 | 1.451 | 1.784 | 0.133 |
| 0.238 | 0.536 | 1.813 | 1.558 | 0.693 |
| 0.264 | 0.478 | 1.85  | 1.552 | 0.616 |
| 0.212 | 0.508 | 1.788 | 1.522 | 0.649 |
| 0.212 | 0.508 | 1.872 | 1.474 | 0.681 |
| 0.41  | 0.471 | 2.013 | 1.61  | 0.635 |
| 0.471 | 0.643 | 1.852 | 1.623 | 0.702 |
| 0.468 | 0.627 | 1.669 | 1.707 | 0.655 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.142 | 0.437 | 1.701 | 1.395 | 0.471 |
| 0.247 | 0.512 | 1.762 | 1.377 | 0.705 |
| 0.588 | 0.873 | 1.497 | 1.868 | 0.215 |
| 0.044 | 0.167 | 1.582 | 0.908 | 0.4   |
| 0.144 | 0.358 | 0.969 | 1.341 | 0.113 |
| 0.061 | 0.526 | 1.522 | 1.599 | 0.265 |
| 0.062 | 0.428 | 1.129 | 1.139 | 0.207 |
| 0.11  | 0.308 | 1.331 | 0.748 | 0.104 |
| 0.137 | 0.234 | 0.764 | 1.403 | 0.051 |
| 0.114 | 0.228 | 1.412 | 1.075 | 0.091 |
| 0.117 | 0.225 | 1.417 | 0.862 | 0.266 |
| 0.097 | 0.262 | 1.517 | 1.065 | 0.089 |
| 0.062 | 0.402 | 1.336 | 1.11  | 0.02  |
| 0.087 | 0.345 | 1.224 | 0.904 | 0.048 |
| 0.149 | 0.42  | 0.974 | 1.438 | 0.103 |
| 0.141 | 0.191 | 1.481 | 0.866 | 0.319 |
| 0.256 | 0.332 | 1.034 | 1.558 | 0.317 |
| 0.385 | 0.304 | 1.253 | 1.681 | 0.249 |
| 0.22  | 0.585 | 0.776 | 1.553 | 0.196 |
| 0.174 | 0.522 | 0.717 | 1.919 | 0.127 |
| 0.101 | 0.255 | 1.42  | 1.138 | 0.119 |
| 0.529 | 0.182 | 2.964 | 1.442 | 0.657 |
| 0.223 | 0.608 | 1.672 | 1.189 | 0.34  |
| 0.418 | 0.581 | 1.79  | 1.796 | 0.333 |
| 0.544 | 0.392 | 1.759 | 1.825 | 0.291 |
| 0.103 | 0.258 | 1.631 | 1.408 | 0.18  |
| 0.643 | 0.603 | 1.588 | 1.17  | 0.316 |
| 0.68  | 0.404 | 1.783 | 1.766 | 0.287 |
| 0.189 | 0.376 | 1.503 | 1.674 | 0.28  |
| 0.257 | 0.545 | 1.455 | 1.545 | 0.129 |
| 0.285 | 0.385 | 1.796 | 1.807 | 0.265 |
| 0.285 | 0.385 | 1.622 | 2.274 | 0.373 |
| 0.253 | 0.505 | 1.842 | 1.862 | 0.348 |
| 0.155 | 0.545 | 1.854 | 1.869 | 0.394 |
| 0.209 | 0.593 | 1.607 | 2.034 | 0.304 |
| 0.373 | 0.553 | 1.55  | 2.48  | 0.497 |
| 0.306 | 0.244 | 1.639 | 1.524 | 0.19  |
| 0.194 | 0.384 | 1.583 | 1.401 | 0.261 |
| 0.049 | 0.229 | 1.665 | 1.475 | 0.365 |
| 0.228 | 0.459 | 1.372 | 1.479 | 0.146 |
| 0.178 | 0.273 | 1.304 | 1.327 | 0.256 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.478 | 0.509 | 1.747 | 1.694 | 0.287 |
| 0.167 | 0.416 | 1.52  | 1.299 | 0.143 |
| 0.432 | 0.422 | 1.772 | 2.076 | 0.293 |
| 0.533 | 0.412 | 1.727 | 1.665 | 0.292 |
| 0.542 | 0.37  | 2.276 | 1.557 | 0.636 |
| 0.492 | 0.386 | 1.799 | 1.375 | 0.617 |
| 0.068 | 0.344 | 1.809 | 1.629 | 0.271 |
| 0.159 | 0.27  | 1.185 | 1.888 | 0.217 |
| 0.347 | 0.408 | 1.634 | 1.517 | 0.224 |
| 0.168 | 0.556 | 1.329 | 1.569 | 0.308 |
| 0.565 | 0.672 | 2.036 | 1.641 | 0.262 |
| 0.334 | 0.488 | 1.094 | 1.627 | 0.303 |
| 0.118 | 0.404 | 1.738 | 1.541 | 0.385 |
| 0.268 | 0.437 | 1.858 | 1.592 | 0.396 |
| 0.11  | 0.221 | 1.557 | 1.02  | 0.321 |
| 0.608 | 0.544 | 1.288 | 1.675 | 0.15  |
| 0.347 | 0.547 | 1.006 | 1.841 | 0.188 |
| 0.228 | 0.508 | 0.963 | 1.574 | 0.169 |
| 0.502 | 0.317 | 1.994 | 2.054 | 0.477 |
| 0.246 | 0.645 | 1.555 | 1.936 | 0.297 |
| 0.316 | 0.535 | 1.861 | 1.88  | 0.328 |
| 0.763 | 0.554 | 1.694 | 1.659 | 0.292 |
| 0.473 | 0.435 | 1.756 | 1.757 | 0.333 |
| 0.548 | 0.401 | 1.96  | 1.82  | 0.626 |
| 0.448 | 0.486 | 1.502 | 1.605 | 0.209 |
| 0.142 | 0.409 | 1.428 | 1.608 | 0.236 |
| 0.344 | 0.546 | 1.863 | 1.867 | 0.366 |
| 0.12  | 0.318 | 1.246 | 1.45  | 0.324 |
| 0.173 | 0.526 | 1.837 | 1.603 | 0.398 |
| 0.262 | 0.545 | 0.978 | 1.868 | 0.299 |
| 0.156 | 0.506 | 1.758 | 1.691 | 0.358 |
| 0.518 | 0.704 | 1.632 | 1.897 | 0.518 |
| 0.486 | 0.793 | 1.91  | 1.919 | 0.416 |
| 0.455 | 0.402 | 1.927 | 1.788 | 0.605 |
| 0.446 | 0.491 | 1.802 | 1.713 | 0.58  |
| 0.29  | 0.42  | 1.931 | 1.841 | 0.315 |
| 0.319 | 0.735 | 0.977 | 1.875 | 0.135 |
| 0.459 | 0.602 | 1.807 | 1.88  | 0.533 |
| 0.439 | 0.825 | 1.347 | 1.802 | 0.247 |
| 0.4   | 0.542 | 1.794 | 2.019 | 0.343 |
| 0.572 | 0.367 | 1.033 | 1.421 | 0.233 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.346 | 0.828 | 1.171 | 1.675 | 0.199 |
| 0.65  | 0.767 | 1.747 | 1.94  | 0.149 |
| 0.538 | 0.341 | 0.847 | 1.304 | 0.154 |
| 0.485 | 0.33  | 2.006 | 1.463 | 0.478 |
| 0.542 | 0.394 | 1.999 | 1.718 | 0.609 |
| 0.4   | 0.373 | 1.7   | 1.434 | 0.574 |
| 0.481 | 0.524 | 1.651 | 1.716 | 0.554 |
| 0.414 | 0.509 | 1.308 | 1.586 | 0.187 |
| 0.468 | 0.605 | 1.814 | 1.934 | 0.539 |
| 0.562 | 0.601 | 1.961 | 2.146 | 0.599 |
| 0.561 | 0.729 | 1.812 | 1.72  | 0.261 |
| 0.207 | 0.327 | 1.465 | 1.298 | 0.204 |
| 0.454 | 0.493 | 1.695 | 2.125 | 0.447 |
| 0.454 | 0.493 | 1.695 | 2.125 | 0.447 |
| 0.487 | 0.351 | 1.612 | 1.964 | 0.42  |
| 0.435 | 0.339 | 1.546 | 1.667 | 0.445 |
| 0.393 | 0.298 | 1.88  | 1.8   | 0.48  |
| 0.4   | 0.491 | 1.934 | 2.217 | 0.462 |
| 0.53  | 0.313 | 1.867 | 1.606 | 0.497 |
| 0.552 | 0.358 | 2.746 | 1.363 | 0.656 |
| 0.472 | 0.428 | 2.065 | 1.654 | 0.653 |
| 0.526 | 0.412 | 2.277 | 2.029 | 0.571 |
| 0.322 | 0.672 | 1.942 | 1.986 | 0.592 |
| 0.466 | 0.34  | 1.992 | 1.922 | 0.486 |
| 0.534 | 0.417 | 1.96  | 1.751 | 0.433 |
| 0.507 | 0.436 | 1.978 | 1.957 | 0.469 |
| 0.573 | 0.467 | 2.32  | 1.998 | 0.591 |
| 0.492 | 0.305 | 2.46  | 1.738 | 0.566 |
| 0.452 | 0.32  | 2.317 | 1.616 | 0.626 |
| 0.558 | 0.356 | 2.291 | 1.592 | 0.524 |
| 0.387 | 0.519 | 1.491 | 1.889 | 0.442 |
| 0.531 | 0.31  | 2.347 | 1.749 | 0.468 |
| 0.474 | 0.297 | 2.356 | 1.741 | 0.59  |
| 0.541 | 0.37  | 1.937 | 1.614 | 0.445 |
| 0.458 | 0.376 | 2.124 | 1.87  | 0.439 |
| 0.519 | 0.365 | 2.106 | 1.864 | 0.453 |
| 0.461 | 0.254 | 2.27  | 1.49  | 0.606 |
| 0.5   | 0.422 | 1.93  | 2.061 | 0.356 |
| 0.491 | 0.371 | 1.949 | 2.063 | 0.366 |
| 0.492 | 0.558 | 1.993 | 1.602 | 0.669 |
| 0.085 | 0.287 | 1.502 | 1.146 | 0.359 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.018 | 0.154 | 1.344 | 0.912 | 0.365 |
| 0.018 | 0.183 | 1.413 | 0.949 | 0.38  |
| 0.042 | 0.121 | 1.689 | 1.221 | 0.421 |
| 0.446 | 0.491 | 1.802 | 1.713 | 0.58  |
| 0.4   | 0.373 | 1.7   | 1.434 | 0.574 |
| 0.133 | 0.333 | 1.349 | 1.145 | 0.32  |
| 0.096 | 0.154 | 1.569 | 1.552 | 0.222 |
| 0.264 | 0.395 | 1.949 | 1.985 | 0.323 |
| 0.359 | 0.539 | 1.584 | 2.073 | 0.445 |
| 0.26  | 0.436 | 1.835 | 1.859 | 0.319 |
| 0.365 | 0.493 | 1.878 | 1.849 | 0.33  |
| 0.491 | 0.325 | 1.991 | 1.34  | 0.496 |
| 0.474 | 0.696 | 1.801 | 2.441 | 0.428 |
| 0.388 | 0.389 | 2.003 | 1.978 | 0.334 |
| 0.282 | 0.462 | 2.024 | 1.844 | 0.365 |
| 0.334 | 0.519 | 1.991 | 2.025 | 0.33  |
| 0.38  | 0.459 | 2.047 | 1.995 | 0.329 |
| 0.369 | 0.331 | 1.628 | 2.288 | 0.34  |
| 0.286 | 0.48  | 1.829 | 1.853 | 0.314 |
| 0.283 | 0.452 | 1.952 | 1.982 | 0.322 |
| 0.369 | 0.466 | 1.92  | 1.782 | 0.443 |
| 0.328 | 0.441 | 1.563 | 2.152 | 0.317 |
| 0.142 | 0.584 | 1.728 | 1.203 | 0.608 |
| 0.365 | 0.463 | 2.011 | 2.021 | 0.335 |
| 0.295 | 0.339 | 1.618 | 1.426 | 0.2   |
| 0.329 | 0.452 | 1.784 | 1.721 | 0.316 |
| 0.353 | 0.541 | 1.883 | 1.807 | 0.336 |
| 0.362 | 0.4   | 1.871 | 1.853 | 0.34  |
| 0.493 | 0.316 | 2.023 | 1.454 | 0.468 |
| 0.411 | 0.579 | 1.782 | 1.689 | 0.298 |
| 0.394 | 0.525 | 1.715 | 2.015 | 0.29  |
| 0.29  | 0.544 | 1.876 | 1.86  | 0.315 |
| 0.282 | 0.462 | 2.024 | 1.844 | 0.365 |
| 0.334 | 0.519 | 1.991 | 2.025 | 0.33  |
| 0.541 | 0.586 | 1.535 | 2.042 | 0.508 |
| 0.499 | 0.474 | 1.838 | 1.863 | 0.553 |
| 0.503 | 0.611 | 1.695 | 2.126 | 0.607 |
| 0.483 | 0.599 | 1.864 | 1.821 | 0.598 |
| 0.523 | 0.85  | 1.525 | 1.65  | 0.242 |
| 0.458 | 0.487 | 2.138 | 1.752 | 0.607 |
| 0.378 | 0.312 | 1.715 | 1.604 | 0.649 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.36  | 0.359 | 1.774 | 2.209 | 0.504 |
| 0.314 | 0.369 | 1.568 | 2.108 | 0.304 |
| 0.611 | 0.488 | 1.331 | 1.885 | 0.598 |
| 0.378 | 0.571 | 1.872 | 2.017 | 0.552 |
| 0.502 | 0.557 | 1.962 | 1.868 | 0.717 |
| 0.437 | 0.547 | 1.257 | 2.167 | 0.344 |
| 0.58  | 0.572 | 1.401 | 2.127 | 0.431 |
| 0.347 | 0.454 | 2.039 | 2.026 | 0.327 |
| 0.264 | 0.395 | 1.949 | 1.985 | 0.323 |
| 0.299 | 0.278 | 1.521 | 1.534 | 0.216 |
| 0.509 | 0.323 | 1.552 | 1.559 | 0.21  |
| 0.038 | 0.112 | 1.946 | 1.193 | 0.198 |
| 0.791 | 0.265 | 2.076 | 2.006 | 0.722 |
| 0.244 | 0.34  | 1.452 | 1.216 | 0.156 |
| 0.675 | 0.521 | 1.402 | 1.79  | 0.229 |
| 0.436 | 0.295 | 1.23  | 1.177 | 0.161 |
| 0.713 | 0.497 | 1.687 | 1.443 | 0.2   |
| 0.474 | 0.696 | 1.801 | 2.441 | 0.428 |
| 0.32  | 0.373 | 1.927 | 2.069 | 0.32  |
| 0.362 | 0.392 | 1.876 | 1.853 | 0.338 |
| 0.333 | 0.442 | 1.986 | 2.014 | 0.331 |
| 0.268 | 0.44  | 1.879 | 1.414 | 0.403 |
| 0.32  | 0.328 | 1.617 | 2.295 | 0.335 |
| 0.228 | 0.396 | 1.725 | 2.375 | 0.361 |
| 0.477 | 0.329 | 1.975 | 1.603 | 0.473 |
| 0.532 | 0.605 | 1.341 | 1.835 | 0.151 |
| 0.265 | 0.315 | 1.688 | 1.766 | 0.339 |
| 0.338 | 0.447 | 1.738 | 1.712 | 0.296 |
| 0.3   | 0.434 | 1.793 | 1.854 | 0.332 |
| 0.308 | 0.41  | 1.846 | 1.862 | 0.328 |
| 0.389 | 0.332 | 2.16  | 0.849 | 0.581 |
| 0.424 | 0.556 | 1.023 | 1.82  | 0.119 |
| 0.399 | 0.366 | 1.643 | 2.143 | 0.517 |
| 0.429 | 0.345 | 1.431 | 1.985 | 0.371 |
| 0.491 | 0.395 | 1.921 | 1.891 | 0.562 |
| 0.501 | 0.371 | 1.971 | 2.013 | 0.408 |
| 0.148 | 0.334 | 1.65  | 2.36  | 0.347 |
| 0.479 | 0.286 | 1.985 | 1.278 | 0.508 |
| 0.137 | 0.462 | 1.809 | 1.495 | 0.37  |
| 0.157 | 0.51  | 1.517 | 1.011 | 0.192 |
| 0.505 | 0.508 | 1.974 | 1.329 | 0.465 |



|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.325 | 0.358 | 2.203 | 2.031 | 0.327 |
| 0.237 | 0.497 | 1.827 | 1.874 | 0.334 |
| 0.433 | 0.276 | 1.75  | 2.01  | 0.483 |
| 0.462 | 0.431 | 2.267 | 1.676 | 0.67  |
| 0.475 | 0.386 | 2.353 | 1.685 | 0.708 |
| 0.445 | 0.374 | 1.87  | 2.133 | 0.523 |
| 0.447 | 0.374 | 2.23  | 1.919 | 0.731 |
| 0.427 | 0.326 | 1.737 | 2.18  | 0.548 |
| 0.561 | 0.35  | 2.452 | 1.705 | 0.508 |
| 0.471 | 0.34  | 2.178 | 1.867 | 0.682 |
| 0.536 | 0.368 | 2.47  | 1.984 | 0.447 |
| 0.503 | 0.4   | 1.929 | 1.967 | 0.354 |
| 0.517 | 0.376 | 2.256 | 2.23  | 0.469 |
| 0.511 | 0.423 | 2.391 | 1.483 | 0.66  |
| 0.459 | 0.425 | 1.958 | 1.986 | 0.476 |
| 0.512 | 0.58  | 2.525 | 1.468 | 0.762 |
| 0.384 | 0.456 | 1.984 | 1.936 | 0.546 |
| 0.483 | 0.416 | 2.217 | 1.737 | 0.646 |
| 0.429 | 0.378 | 1.81  | 2.027 | 0.48  |
| 0.463 | 0.388 | 1.654 | 1.994 | 0.378 |
| 0.507 | 0.392 | 1.664 | 1.944 | 0.371 |
| 0.511 | 0.388 | 2.068 | 1.705 | 0.57  |
| 0.391 | 0.614 | 1.879 | 2.039 | 0.43  |
| 0.618 | 0.583 | 2.718 | 1.999 | 0.687 |
| 0.451 | 0.559 | 1.983 | 1.563 | 0.669 |
| 0.468 | 0.605 | 1.814 | 1.934 | 0.539 |
| 0.472 | 0.488 | 1.67  | 1.972 | 0.465 |
| 0.461 | 0.66  | 2.069 | 1.532 | 0.752 |
| 0.368 | 0.393 | 1.823 | 1.075 | 0.578 |
| 0.416 | 0.529 | 1.894 | 1.786 | 0.702 |
| 0.445 | 0.432 | 1.548 | 2.08  | 0.494 |
| 0.533 | 0.375 | 1.984 | 2.031 | 0.444 |
| 0.358 | 0.334 | 1.68  | 1.99  | 0.466 |
| 0.451 | 0.559 | 1.983 | 1.563 | 0.669 |
| 0.472 | 0.488 | 1.67  | 1.972 | 0.465 |
| 0.539 | 0.563 | 2.42  | 1.73  | 0.694 |
| 0.5   | 0.568 | 2.208 | 1.965 | 0.662 |
| 0.644 | 0.565 | 2.672 | 1.842 | 0.814 |
| 0.627 | 0.483 | 2.736 | 1.852 | 0.647 |
| 0.585 | 0.481 | 2.428 | 2.186 | 0.629 |
| 0.619 | 0.505 | 2.603 | 2.01  | 0.653 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.518 | 0.405 | 1.99  | 1.901 | 0.562 |
| 0.476 | 0.513 | 2.333 | 2.081 | 0.554 |
| 0.402 | 0.419 | 1.885 | 1.94  | 0.607 |
| 0.337 | 0.329 | 1.734 | 2.221 | 0.512 |
| 0.4   | 0.396 | 2.276 | 2.077 | 0.484 |
| 0.389 | 0.447 | 2.036 | 2.475 | 0.382 |
| 0.32  | 0.364 | 1.578 | 2.107 | 0.318 |
| 0.686 | 0.545 | 2.503 | 1.902 | 0.755 |
| 0.464 | 0.299 | 1.837 | 1.901 | 0.423 |
| 0.37  | 0.364 | 1.632 | 1.74  | 0.506 |
| 0.562 | 0.551 | 2.4   | 1.18  | 0.608 |
| 0.556 | 0.542 | 2.205 | 1.183 | 0.61  |
| 0.516 | 0.601 | 2.227 | 1.243 | 0.618 |
| 0.515 | 0.601 | 2.182 | 1.308 | 0.626 |
| 0.294 | 0.605 | 1.795 | 2.039 | 0.331 |
| 0.493 | 0.383 | 1.87  | 1.702 | 0.447 |
| 0.533 | 0.406 | 1.865 | 1.737 | 0.621 |
| 0.602 | 0.494 | 2.451 | 2.169 | 0.638 |
| 0.395 | 0.588 | 2.107 | 1.737 | 0.56  |
| 0.391 | 0.614 | 1.879 | 2.039 | 0.43  |
| 0.421 | 0.57  | 2.141 | 1.751 | 0.548 |
| 0.406 | 0.57  | 0.874 | 1.881 | 0.241 |
| 0.519 | 0.512 | 1.757 | 1.934 | 0.469 |
| 0.455 | 0.634 | 1.313 | 2.16  | 0.294 |
| 0.245 | 0.388 | 1.694 | 1.506 | 0.249 |
| 0.49  | 0.367 | 2.181 | 1.123 | 0.589 |
| 0.236 | 0.215 | 1.725 | 1.365 | 0.347 |
| 0.285 | 0.385 | 1.734 | 2.24  | 0.466 |
| 0.436 | 0.582 | 2.108 | 1.938 | 0.755 |
| 0.344 | 0.325 | 1.728 | 1.91  | 0.533 |
| 0.576 | 0.645 | 1.111 | 1.952 | 0.314 |
| 0.194 | 0.466 | 1.67  | 2.286 | 0.345 |
| 0.217 | 0.532 | 1.86  | 1.417 | 0.477 |
| 0.336 | 0.535 | 1.78  | 1.787 | 0.471 |
| 0.236 | 0.551 | 1.88  | 1.645 | 0.299 |
| 0.263 | 0.581 | 1.895 | 1.969 | 0.344 |
| 0.212 | 0.41  | 1.553 | 1.292 | 0.346 |
| 0.202 | 0.382 | 1.68  | 1.255 | 0.348 |
| 0.469 | 0.354 | 1.677 | 2.069 | 0.408 |
| 0.429 | 0.3   | 1.704 | 1.729 | 0.411 |
| 0.462 | 0.431 | 2.267 | 1.676 | 0.67  |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.407 | 0.403 | 2.158 | 1.519 | 0.697 |
| 0.749 | 0.543 | 1.843 | 1.627 | 0.291 |
| 0.312 | 0.407 | 1.524 | 1.534 | 0.215 |
| 0.35  | 0.336 | 1.909 | 2     | 0.527 |
| 0.32  | 0.297 | 1.824 | 2.195 | 0.428 |
| 0.212 | 0.491 | 1.643 | 2.02  | 0.337 |
| 0.577 | 0.772 | 2.102 | 1.876 | 0.822 |
| 0.545 | 0.728 | 2.082 | 1.539 | 0.78  |
| 0.577 | 0.586 | 2.573 | 1.853 | 0.653 |
| 0.358 | 0.735 | 1.936 | 1.805 | 0.32  |
| 0.504 | 0.359 | 2.375 | 1.91  | 0.625 |
| 0.526 | 0.359 | 2.792 | 1.509 | 0.667 |
| 0.537 | 0.36  | 2.898 | 1.456 | 0.657 |
| 0.476 | 0.313 | 2.097 | 1.98  | 0.467 |
| 0.509 | 0.225 | 2.613 | 1.865 | 0.635 |
| 0.482 | 0.361 | 2.006 | 1.938 | 0.457 |
| 0.528 | 0.335 | 2.754 | 1.455 | 0.645 |
| 0.524 | 0.204 | 2.775 | 1.674 | 0.655 |
| 0.383 | 0.331 | 2.222 | 2.007 | 0.509 |
| 0.476 | 0.313 | 2.097 | 1.98  | 0.467 |
| 0.441 | 0.331 | 2.143 | 1.956 | 0.441 |
| 0.466 | 0.305 | 2.029 | 1.968 | 0.471 |
| 0.44  | 0.437 | 1.899 | 1.865 | 0.325 |
| 0.52  | 0.456 | 1.673 | 2.116 | 0.53  |
| 0.576 | 0.662 | 1.947 | 1.956 | 0.706 |
| 0.479 | 0.603 | 1.512 | 2.167 | 0.536 |
| 0.372 | 0.258 | 1.865 | 1.772 | 0.46  |
| 0.438 | 0.345 | 2.074 | 1.607 | 0.436 |
| 0.353 | 0.292 | 1.775 | 1.936 | 0.385 |
| 0.35  | 0.25  | 1.953 | 1.756 | 0.398 |
| 0.096 | 0.276 | 1.734 | 1.507 | 0.247 |
| 0.324 | 0.359 | 1.147 | 1.764 | 0.617 |
| 0.082 | 0.25  | 1.075 | 1.751 | 0.209 |
| 0.389 | 0.284 | 1.411 | 1.287 | 0.242 |
| 0.083 | 0.177 | 1.726 | 0.833 | 0.382 |
| 0.115 | 0.473 | 1.794 | 0.914 | 0.402 |
| 0.275 | 0.515 | 1.767 | 1.961 | 0.396 |
| 0.742 | 0.672 | 2.433 | 1.653 | 0.97  |
| 0.226 | 0.558 | 1.77  | 1.781 | 0.333 |
| 0.914 | 0.674 | 1.802 | 1.892 | 0.873 |
| 0.47  | 0.322 | 2.011 | 1.577 | 0.481 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.695 | 0.92  | 1.449 | 1.703 | 0.244 |
| 0.086 | 0.308 | 1.538 | 1.073 | 0.293 |
| 0.07  | 0.561 | 1.712 | 1.375 | 0.233 |
| 0.089 | 0.536 | 1.624 | 1.316 | 0.368 |
| 0.154 | 0.678 | 1.546 | 1.618 | 0.319 |
| 0.467 | 0.355 | 2.016 | 1.291 | 0.475 |
| 0.559 | 0.943 | 1.041 | 1.766 | 0.216 |
| 0.361 | 0.769 | 0.87  | 1.838 | 0.263 |
| 0.156 | 0.252 | 1.761 | 1.877 | 0.35  |
| 0.228 | 0.396 | 1.725 | 2.375 | 0.361 |
| 0.419 | 0.434 | 1.857 | 1.783 | 0.436 |
| 0.472 | 0.43  | 1.852 | 1.918 | 0.425 |
| 0.391 | 0.476 | 2.196 | 1.73  | 0.576 |
| 0.036 | 0.316 | 1.32  | 0.894 | 0.371 |
| 0.29  | 0.324 | 0.899 | 1.276 | 0.2   |
| 0.796 | 0.439 | 1.629 | 2.092 | 0.471 |
| 0.375 | 0.558 | 1.786 | 1.785 | 0.477 |
| 0.324 | 0.341 | 1.697 | 2.266 | 0.349 |
| 0.332 | 0.38  | 1.824 | 1.852 | 0.322 |
| 0.153 | 0.375 | 1.411 | 1.229 | 0.207 |
| 0.374 | 0.486 | 1.859 | 1.85  | 0.322 |
| 0.387 | 0.606 | 1.78  | 1.69  | 0.298 |
| 0.616 | 0.668 | 1.57  | 2.086 | 0.573 |
| 0.214 | 0.399 | 1.646 | 2.429 | 0.337 |
| 0.506 | 0.626 | 2.206 | 1.268 | 0.684 |
| 0.524 | 0.794 | 1.061 | 1.624 | 0.215 |
| 0.538 | 0.633 | 2.082 | 1.536 | 0.722 |
| 0.212 | 0.491 | 1.805 | 1.626 | 0.271 |
| 0.275 | 0.515 | 1.79  | 1.975 | 0.411 |
| 0.531 | 0.286 | 2.631 | 1.701 | 0.555 |
| 0.172 | 0.492 | 1.793 | 1.595 | 0.254 |
| 0.083 | 0.347 | 1.8   | 1.047 | 0.156 |
| 0.112 | 0.329 | 1.63  | 1.289 | 0.254 |
| 0.449 | 0.582 | 1.954 | 2.351 | 0.669 |
| 0.697 | 0.835 | 1.483 | 2.082 | 0.237 |
| 0.45  | 0.675 | 2.016 | 1.687 | 0.612 |
| 0.273 | 0.507 | 1.695 | 1.738 | 0.284 |
| 0.187 | 0.522 | 1.553 | 1.757 | 0.316 |
| 0.173 | 0.261 | 1.564 | 1.317 | 0.26  |
| 0.16  | 0.259 | 1.306 | 1.385 | 0.254 |
| 0.112 | 0.533 | 1.817 | 1.499 | 0.43  |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.086 | 0.285 | 1.711 | 1.435 | 0.347 |
| 0.261 | 0.219 | 1.589 | 1.663 | 0.208 |
| 0.474 | 0.323 | 1.937 | 1.953 | 0.417 |
| 0.129 | 0.283 | 1.372 | 0.856 | 0.326 |
| 0.26  | 0.569 | 1.78  | 1.799 | 0.331 |
| 0.32  | 0.802 | 1.041 | 1.742 | 0.223 |
| 0.288 | 0.401 | 1.741 | 1.707 | 0.29  |
| 0.11  | 0.55  | 1.743 | 1.371 | 0.35  |
| 0.655 | 0.373 | 1.621 | 1.575 | 0.209 |
| 0.719 | 0.236 | 0.659 | 1.941 | 0.443 |
| 0.241 | 0.421 | 1.611 | 2.11  | 0.342 |
| 0.352 | 0.569 | 1.741 | 1.688 | 0.291 |
| 0.206 | 0.475 | 1.728 | 1.95  | 0.284 |
| 0.231 | 0.395 | 1.603 | 1.353 | 0.349 |
| 0.137 | 0.572 | 1.673 | 1.175 | 0.522 |
| 0.308 | 0.415 | 2.023 | 2.003 | 0.324 |
| 0.463 | 0.401 | 0.745 | 1.919 | 0.436 |
| 0.534 | 0.414 | 2.239 | 1.547 | 0.736 |
| 0.524 | 0.387 | 2.061 | 1.695 | 0.595 |
| 0.545 | 0.415 | 1.993 | 1.818 | 0.616 |
| 0.475 | 0.384 | 1.96  | 2.13  | 0.566 |
| 0.61  | 0.656 | 1.787 | 1.765 | 0.32  |
| 0.1   | 0.33  | 1.564 | 1.258 | 0.363 |
| 0.104 | 0.218 | 1.782 | 0.967 | 0.141 |
| 0.068 | 0.254 | 1.547 | 0.989 | 0.351 |
| 0.236 | 0.366 | 0.979 | 1.707 | 0.119 |
| 0.221 | 0.318 | 0.975 | 1.588 | 0.134 |
| 0.169 | 0.234 | 1.338 | 1.264 | 0.182 |
| 0.019 | 0.216 | 1.38  | 0.906 | 0.288 |
| 0.164 | 0.275 | 1.808 | 1.354 | 0.239 |
| 0.109 | 0.35  | 1.814 | 1.11  | 0.225 |
| 0.163 | 0.436 | 1.358 | 1.109 | 0.284 |
| 0.355 | 0.794 | 1.274 | 1.829 | 0.245 |
| 0.261 | 0.329 | 0.95  | 1.605 | 0.194 |
| 0.074 | 0.298 | 1.68  | 0.999 | 0.173 |
| 0.105 | 0.514 | 1.67  | 0.922 | 0.376 |
| 0.551 | 0.307 | 2.293 | 1.269 | 0.589 |
| 0.101 | 0.306 | 1.84  | 1.559 | 0.244 |
| 0.424 | 0.625 | 1.511 | 2.018 | 0.293 |
| 0.183 | 0.525 | 1.877 | 1.64  | 0.279 |
| 0.174 | 0.497 | 1.774 | 1.938 | 0.309 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.237 | 0.463 | 1.765 | 1.907 | 0.592 |
| 0.246 | 0.24  | 1.269 | 1.17  | 0.176 |
| 0.212 | 0.491 | 1.713 | 1.845 | 0.333 |
| 0.275 | 0.515 | 1.834 | 1.906 | 0.331 |
| 0.496 | 0.437 | 2.319 | 1.614 | 0.667 |
| 0.619 | 0.505 | 2.603 | 2.01  | 0.653 |
| 0.585 | 0.481 | 2.428 | 2.186 | 0.629 |
| 0.511 | 0.574 | 1.367 | 2.205 | 0.648 |
| 0.502 | 0.783 | 1.191 | 2.034 | 0.422 |
| 0.212 | 0.491 | 1.789 | 1.737 | 0.292 |
| 0.635 | 0.692 | 1.766 | 1.778 | 0.328 |
| 0.59  | 0.761 | 1.459 | 1.712 | 0.189 |
| 0.524 | 0.794 | 1.061 | 1.624 | 0.215 |
| 0.08  | 0.547 | 1.661 | 1.228 | 0.474 |
| 0.461 | 0.66  | 2.069 | 1.532 | 0.752 |
| 0.129 | 0.315 | 1.552 | 1.597 | 0.24  |
| 0.541 | 0.501 | 2.453 | 1.479 | 0.696 |
| 0.578 | 0.451 | 2.5   | 1.347 | 0.665 |
| 0.53  | 0.495 | 2.494 | 1.461 | 0.75  |
| 0.571 | 0.446 | 2.581 | 1.411 | 0.707 |
| 0.282 | 0.349 | 1.542 | 1.258 | 0.454 |
| 0.65  | 0.568 | 1.751 | 1.641 | 0.311 |
| 0.099 | 0.766 | 1.323 | 1.682 | 0.18  |
| 0.402 | 0.46  | 1.594 | 1.883 | 0.217 |
| 0.462 | 0.633 | 1.772 | 1.735 | 0.32  |
| 0.275 | 0.515 | 1.772 | 2.012 | 0.408 |
| 0.231 | 0.541 | 1.845 | 1.967 | 0.328 |
| 0.153 | 0.471 | 1.691 | 1.515 | 0.253 |
| 0.24  | 0.44  | 1.62  | 1.441 | 0.225 |
| 0.609 | 0.368 | 2.407 | 1.633 | 0.784 |
| 0.516 | 0.335 | 1.907 | 1.906 | 0.61  |
| 0.637 | 0.429 | 1.771 | 1.628 | 0.29  |
| 0.523 | 0.227 | 1.282 | 1.922 | 0.267 |
| 0.74  | 0.585 | 1.469 | 1.77  | 0.217 |
| 0.338 | 0.686 | 1.706 | 1.768 | 0.292 |
| 0.872 | 0.544 | 0.643 | 1.876 | 0.164 |
| 0.081 | 0.422 | 1.551 | 1.582 | 0.248 |
| 0.084 | 0.388 | 1.586 | 1.297 | 0.335 |
| 0.433 | 0.919 | 1.232 | 2.908 | 0.316 |
| 0.093 | 0.304 | 1.851 | 1.008 | 0.171 |
| 0.141 | 0.433 | 1.529 | 1.599 | 0.285 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.12  | 0.519 | 1.367 | 1.123 | 0.251 |
| 0.343 | 0.629 | 1.442 | 2.021 | 0.318 |
| 0.378 | 0.595 | 1.774 | 1.602 | 0.321 |
| 0.361 | 0.139 | 0.2   | 2.045 | 0.371 |
| 0.441 | 0.439 | 2.017 | 1.712 | 0.627 |
| 0.463 | 0.424 | 1.779 | 2.16  | 0.424 |
| 0.709 | 0.672 | 2.039 | 2.02  | 0.782 |
| 0.611 | 0.466 | 1.698 | 2.21  | 0.58  |
| 0.731 | 0.567 | 2.042 | 2.128 | 0.761 |
| 0.586 | 0.627 | 2.179 | 2.071 | 0.814 |
| 0.393 | 0.428 | 1.58  | 1.885 | 0.54  |
| 0.724 | 0.707 | 1.78  | 2.153 | 0.609 |
| 0.356 | 0.354 | 1.994 | 2.08  | 0.359 |
| 0.142 | 0.584 | 1.668 | 1.216 | 0.576 |
| 0.388 | 0.586 | 1.833 | 1.874 | 0.311 |
| 0.319 | 0.336 | 0.898 | 1.706 | 0.224 |
| 0.345 | 0.454 | 1.993 | 2.025 | 0.331 |
| 0.454 | 0.558 | 1.983 | 1.498 | 0.656 |
| 0.126 | 0.587 | 1.763 | 1.171 | 0.619 |
| 0.623 | 0.405 | 1.753 | 1.54  | 0.249 |
| 0.077 | 0.432 | 1.708 | 1.563 | 0.438 |
| 0.326 | 0.522 | 1.748 | 1.693 | 0.293 |
| 0.596 | 0.334 | 1.852 | 1.716 | 0.319 |
| 0.531 | 0.31  | 2.347 | 1.749 | 0.468 |
| 0.977 | 0.717 | 1.701 | 2.159 | 0.26  |
| 0.386 | 0.72  | 1.313 | 2.235 | 0.315 |
| 0.606 | 0.205 | 1.775 | 1.554 | 0.244 |
| 0.263 | 0.579 | 1.872 | 1.735 | 0.485 |
| 0.307 | 0.537 | 1.715 | 1.984 | 0.41  |
| 0.471 | 0.713 | 1.904 | 2.113 | 0.561 |
| 0.336 | 0.535 | 1.783 | 1.787 | 0.471 |
| 0.236 | 0.551 | 1.88  | 1.645 | 0.299 |
| 0.275 | 0.515 | 1.755 | 1.995 | 0.402 |
| 0.487 | 0.869 | 1.096 | 1.959 | 0.193 |
| 0.275 | 0.515 | 1.772 | 1.989 | 0.339 |
| 0.359 | 0.371 | 1.865 | 1.849 | 0.334 |
| 0.157 | 0.204 | 1.695 | 1.587 | 0.31  |
| 0.299 | 0.406 | 1.507 | 1.308 | 0.412 |
| 0.515 | 0.625 | 1.138 | 2.064 | 0.389 |
|       |       |       |       |       |
|       |       |       |       |       |

|       | <b>Metabolites after MDS using CDK (165) (used for MDS using ADMET)</b> |       |       |       |
|-------|---|-------|-------|-------|
|       |   |       |       |       |
| D6-In | D6-Subs   | T1/2  | CL    | hERG  |
| 0.178 | 0.273   | 1.304 | 1.327 | 0.256 |
| 0.542 | 0.37  | 2.276 | 1.557 | 0.636 |
| 0.492 | 0.386   | 1.799 | 1.375 | 0.617 |
| 0.502 | 0.317   | 1.994 | 2.054 | 0.477 |
| 0.548 | 0.401   | 1.96  | 1.82  | 0.626 |
| 0.142 | 0.409   | 1.428 | 1.608 | 0.236 |
| 0.518 | 0.704   | 1.632 | 1.897 | 0.518 |
| 0.455 | 0.402   | 1.927 | 1.788 | 0.605 |
| 0.446 | 0.491   | 1.802 | 1.713 | 0.58  |
| 0.459 | 0.602   | 1.807 | 1.88  | 0.533 |
| 0.4   | 0.373   | 1.7   | 1.434 | 0.574 |
| 0.562 | 0.601   | 1.961 | 2.146 | 0.599 |
| 0.487 | 0.351   | 1.612 | 1.964 | 0.42  |
| 0.53  | 0.313   | 1.867 | 1.606 | 0.497 |
| 0.552 | 0.358   | 2.746 | 1.363 | 0.656 |
| 0.472 | 0.428   | 2.065 | 1.654 | 0.653 |
| 0.526 | 0.412   | 2.277 | 2.029 | 0.571 |
| 0.322 | 0.672   | 1.942 | 1.986 | 0.592 |
| 0.466 | 0.34  | 1.992 | 1.922 | 0.486 |
| 0.492 | 0.305   | 2.46  | 1.738 | 0.566 |
| 0.452 | 0.32  | 2.317 | 1.616 | 0.626 |
| 0.558 | 0.356   | 2.291 | 1.592 | 0.524 |
| 0.531 | 0.31  | 2.347 | 1.749 | 0.468 |
| 0.474 | 0.297   | 2.356 | 1.741 | 0.59  |
| 0.541 | 0.37  | 1.937 | 1.614 | 0.445 |
| 0.458 | 0.376   | 2.124 | 1.87  | 0.439 |
| 0.519 | 0.365   | 2.106 | 1.864 | 0.453 |
| 0.461 | 0.254   | 2.27  | 1.49  | 0.606 |
| 0.492 | 0.558   | 1.993 | 1.602 | 0.669 |
| 0.446 | 0.491   | 1.802 | 1.713 | 0.58  |
| 0.474 | 0.696   | 1.801 | 2.441 | 0.428 |
| 0.328 | 0.441   | 1.563 | 2.152 | 0.317 |
| 0.142 | 0.584   | 1.728 | 1.203 | 0.608 |
| 0.295 | 0.339   | 1.618 | 1.426 | 0.2   |



|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.483 | 0.599 | 1.864 | 1.821 | 0.598 |
| 0.523 | 0.85  | 1.525 | 1.65  | 0.242 |
| 0.458 | 0.487 | 2.138 | 1.752 | 0.607 |
| 0.378 | 0.571 | 1.872 | 2.017 | 0.552 |
| 0.502 | 0.557 | 1.962 | 1.868 | 0.717 |
| 0.474 | 0.696 | 1.801 | 2.441 | 0.428 |
| 0.399 | 0.366 | 1.643 | 2.143 | 0.517 |
| 0.491 | 0.395 | 1.921 | 1.891 | 0.562 |
| 0.501 | 0.371 | 1.971 | 2.013 | 0.408 |
| 0.433 | 0.276 | 1.75  | 2.01  | 0.483 |
| 0.462 | 0.431 | 2.267 | 1.676 | 0.67  |
| 0.475 | 0.386 | 2.353 | 1.685 | 0.708 |
| 0.445 | 0.374 | 1.87  | 2.133 | 0.523 |
| 0.447 | 0.374 | 2.23  | 1.919 | 0.731 |
| 0.427 | 0.326 | 1.737 | 2.18  | 0.548 |
| 0.561 | 0.35  | 2.452 | 1.705 | 0.508 |
| 0.471 | 0.34  | 2.178 | 1.867 | 0.682 |
| 0.536 | 0.368 | 2.47  | 1.984 | 0.447 |
| 0.503 | 0.4   | 1.929 | 1.967 | 0.354 |
| 0.517 | 0.376 | 2.256 | 2.23  | 0.469 |
| 0.511 | 0.423 | 2.391 | 1.483 | 0.66  |
| 0.512 | 0.58  | 2.525 | 1.468 | 0.762 |
| 0.384 | 0.456 | 1.984 | 1.936 | 0.546 |
| 0.483 | 0.416 | 2.217 | 1.737 | 0.646 |
| 0.507 | 0.392 | 1.664 | 1.944 | 0.371 |
| 0.511 | 0.388 | 2.068 | 1.705 | 0.57  |
| 0.618 | 0.583 | 2.718 | 1.999 | 0.687 |
| 0.461 | 0.66  | 2.069 | 1.532 | 0.752 |
| 0.368 | 0.393 | 1.823 | 1.075 | 0.578 |
| 0.416 | 0.529 | 1.894 | 1.786 | 0.702 |
| 0.533 | 0.375 | 1.984 | 2.031 | 0.444 |
| 0.451 | 0.559 | 1.983 | 1.563 | 0.669 |
| 0.539 | 0.563 | 2.42  | 1.73  | 0.694 |
| 0.5   | 0.568 | 2.208 | 1.965 | 0.662 |
| 0.644 | 0.565 | 2.672 | 1.842 | 0.814 |
| 0.627 | 0.483 | 2.736 | 1.852 | 0.647 |
| 0.585 | 0.481 | 2.428 | 2.186 | 0.629 |
| 0.619 | 0.505 | 2.603 | 2.01  | 0.653 |
| 0.476 | 0.513 | 2.333 | 2.081 | 0.554 |
| 0.402 | 0.419 | 1.885 | 1.94  | 0.607 |
| 0.4   | 0.396 | 2.276 | 2.077 | 0.484 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.389 | 0.447 | 2.036 | 2.475 | 0.382 |
| 0.32  | 0.364 | 1.578 | 2.107 | 0.318 |
| 0.686 | 0.545 | 2.503 | 1.902 | 0.755 |
| 0.294 | 0.605 | 1.795 | 2.039 | 0.331 |
| 0.533 | 0.406 | 1.865 | 1.737 | 0.621 |
| 0.602 | 0.494 | 2.451 | 2.169 | 0.638 |
| 0.406 | 0.57  | 0.874 | 1.881 | 0.241 |
| 0.236 | 0.215 | 1.725 | 1.365 | 0.347 |
| 0.436 | 0.582 | 2.108 | 1.938 | 0.755 |
| 0.194 | 0.466 | 1.67  | 2.286 | 0.345 |
| 0.212 | 0.41  | 1.553 | 1.292 | 0.346 |
| 0.202 | 0.382 | 1.68  | 1.255 | 0.348 |
| 0.469 | 0.354 | 1.677 | 2.069 | 0.408 |
| 0.429 | 0.3   | 1.704 | 1.729 | 0.411 |
| 0.462 | 0.431 | 2.267 | 1.676 | 0.67  |
| 0.407 | 0.403 | 2.158 | 1.519 | 0.697 |
| 0.312 | 0.407 | 1.524 | 1.534 | 0.215 |
| 0.32  | 0.297 | 1.824 | 2.195 | 0.428 |
| 0.577 | 0.772 | 2.102 | 1.876 | 0.822 |
| 0.545 | 0.728 | 2.082 | 1.539 | 0.78  |
| 0.577 | 0.586 | 2.573 | 1.853 | 0.653 |
| 0.504 | 0.359 | 2.375 | 1.91  | 0.625 |
| 0.526 | 0.359 | 2.792 | 1.509 | 0.667 |
| 0.537 | 0.36  | 2.898 | 1.456 | 0.657 |
| 0.476 | 0.313 | 2.097 | 1.98  | 0.467 |
| 0.509 | 0.225 | 2.613 | 1.865 | 0.635 |
| 0.482 | 0.361 | 2.006 | 1.938 | 0.457 |
| 0.528 | 0.335 | 2.754 | 1.455 | 0.645 |
| 0.524 | 0.204 | 2.775 | 1.674 | 0.655 |
| 0.383 | 0.331 | 2.222 | 2.007 | 0.509 |
| 0.476 | 0.313 | 2.097 | 1.98  | 0.467 |
| 0.441 | 0.331 | 2.143 | 1.956 | 0.441 |
| 0.466 | 0.305 | 2.029 | 1.968 | 0.471 |
| 0.576 | 0.662 | 1.947 | 1.956 | 0.706 |
| 0.324 | 0.359 | 1.147 | 1.764 | 0.617 |
| 0.082 | 0.25  | 1.075 | 1.751 | 0.209 |
| 0.389 | 0.284 | 1.411 | 1.287 | 0.242 |
| 0.914 | 0.674 | 1.802 | 1.892 | 0.873 |
| 0.695 | 0.92  | 1.449 | 1.703 | 0.244 |
| 0.559 | 0.943 | 1.041 | 1.766 | 0.216 |
| 0.361 | 0.769 | 0.87  | 1.838 | 0.263 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.156 | 0.252 | 1.761 | 1.877 | 0.35  |
| 0.419 | 0.434 | 1.857 | 1.783 | 0.436 |
| 0.472 | 0.43  | 1.852 | 1.918 | 0.425 |
| 0.391 | 0.476 | 2.196 | 1.73  | 0.576 |
| 0.616 | 0.668 | 1.57  | 2.086 | 0.573 |
| 0.538 | 0.633 | 2.082 | 1.536 | 0.722 |
| 0.531 | 0.286 | 2.631 | 1.701 | 0.555 |
| 0.112 | 0.329 | 1.63  | 1.289 | 0.254 |
| 0.697 | 0.835 | 1.483 | 2.082 | 0.237 |
| 0.45  | 0.675 | 2.016 | 1.687 | 0.612 |
| 0.261 | 0.219 | 1.589 | 1.663 | 0.208 |
| 0.474 | 0.323 | 1.937 | 1.953 | 0.417 |
| 0.32  | 0.802 | 1.041 | 1.742 | 0.223 |
| 0.241 | 0.421 | 1.611 | 2.11  | 0.342 |
| 0.231 | 0.395 | 1.603 | 1.353 | 0.349 |
| 0.137 | 0.572 | 1.673 | 1.175 | 0.522 |
| 0.534 | 0.414 | 2.239 | 1.547 | 0.736 |
| 0.524 | 0.387 | 2.061 | 1.695 | 0.595 |
| 0.545 | 0.415 | 1.993 | 1.818 | 0.616 |
| 0.475 | 0.384 | 1.96  | 2.13  | 0.566 |
| 0.355 | 0.794 | 1.274 | 1.829 | 0.245 |
| 0.424 | 0.625 | 1.511 | 2.018 | 0.293 |
| 0.496 | 0.437 | 2.319 | 1.614 | 0.667 |
| 0.619 | 0.505 | 2.603 | 2.01  | 0.653 |
| 0.585 | 0.481 | 2.428 | 2.186 | 0.629 |
| 0.511 | 0.574 | 1.367 | 2.205 | 0.648 |
| 0.502 | 0.783 | 1.191 | 2.034 | 0.422 |
| 0.08  | 0.547 | 1.661 | 1.228 | 0.474 |
| 0.461 | 0.66  | 2.069 | 1.532 | 0.752 |
| 0.541 | 0.501 | 2.453 | 1.479 | 0.696 |
| 0.53  | 0.495 | 2.494 | 1.461 | 0.75  |
| 0.099 | 0.766 | 1.323 | 1.682 | 0.18  |
| 0.24  | 0.44  | 1.62  | 1.441 | 0.225 |
| 0.609 | 0.368 | 2.407 | 1.633 | 0.784 |
| 0.516 | 0.335 | 1.907 | 1.906 | 0.61  |
| 0.433 | 0.919 | 1.232 | 2.908 | 0.316 |
| 0.441 | 0.439 | 2.017 | 1.712 | 0.627 |
| 0.463 | 0.424 | 1.779 | 2.16  | 0.424 |
| 0.709 | 0.672 | 2.039 | 2.02  | 0.782 |
| 0.611 | 0.466 | 1.698 | 2.21  | 0.58  |
| 0.731 | 0.567 | 2.042 | 2.128 | 0.761 |

|       |   |       |         |       |       |
|-------|---|-------|---------|-------|-------|
| 0.393 |   | 0.428 | 1.58    | 1.885 | 0.54  |
| 0.724 |   | 0.707 | 1.78    | 2.153 | 0.609 |
| 0.126 |   | 0.587 | 1.763   | 1.171 | 0.619 |
| 0.531 |   | 0.31  | 2.347   | 1.749 | 0.468 |
| 0.977 |   | 0.717 | 1.701   | 2.159 | 0.26  |
| 0.386 |   | 0.72  | 1.313   | 2.235 | 0.315 |
| 0.471 |   | 0.713 | 1.904   | 2.113 | 0.561 |
| 0.157 |   | 0.204 | 1.695   | 1.587 | 0.31  |
|       |   |       |         |       |       |
|       | <b>468 Metabolites and positive &amp; negative controls</b> |       |         |       |       |
|       |   |       |         |       |       |
| H-HT  | AMES  |       | Skinsen | LD50  | DILI  |
| 0.664 |   | 0.29  | 0.286   | 130   | 0.08  |
| 0.436 |   | 0.158 | 0.494   | 624   | 0.148 |
| 0.25  |   | 0.29  | 0.38    | 320   | 0.124 |
| 0.574 |   | 0.158 | 0.392   | 426   | 0.076 |
| 0.386 |   | 0.142 | 0.469   | 782   | 0.094 |
| 0.788 |   | 0.316 | 0.34    | 221   | 0.514 |
| 0.768 |   | 0.328 | 0.433   | 454   | 0.124 |
| 0.856 |   | 0.292 | 0.363   | 327   | 0.39  |
| 0.87  |   | 0.836 | 0.534   | 1018  | 0.666 |
| 0.858 |   | 0.232 | 0.304   | 820   | 0.246 |
| 0.798 |   | 0.144 | 0.436   | 410   | 0.008 |
| 0.48  |   | 0.396 | 0.388   | 191   | 0.456 |
| 0.132 |   | 0.236 | 0.53    | 619   | 0.014 |
| 0.784 |   | 0.242 | 0.44    | 377   | 0.24  |
| 0.748 |   | 0.31  | 0.614   | 1084  | 0.174 |
| 0.54  |   | 0.322 | 0.537   | 754   | 0.636 |
| 0.58  |   | 0.162 | 0.436   | 324   | 0.096 |
| 0.626 |   | 0.16  | 0.432   | 3122  | 0.162 |
| 0.608 |   | 0.3   | 0.522   | 738   | 0.646 |
| 0.926 |   | 0.858 | 0.459   | 1143  | 0.616 |
| 0.67  |   | 0.238 | 0.337   | 167   | 0.056 |
| 0.86  |   | 0.3   | 0.436   | 397   | 0.114 |
| 0.26  |   | 0.286 | 0.334   | 256   | 0.168 |
| 0.836 |   | 0.216 | 0.386   | 495   | 0.012 |
| 0.91  |   | 0.208 | 0.427   | 581   | 0.006 |
| 0.842 |   | 0.126 | 0.542   | 407   | 0.318 |
| 0.738 |   | 0.148 | 0.5     | 962   | 0.046 |
| 0.784 |   | 0.242 | 0.44    | 377   | 0.24  |

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.136 | 0.158 | 0.544 | 1031 | 0.04  |
| 0.896 | 0.138 | 0.482 | 425  | 0.01  |
| 0.312 | 0.196 | 0.501 | 538  | 0.182 |
| 0.86  | 0.264 | 0.329 | 263  | 0.014 |
| 0.886 | 0.274 | 0.393 | 292  | 0.02  |
| 0.744 | 0.268 | 0.484 | 1330 | 0.492 |
| 0.954 | 0.17  | 0.464 | 433  | 0.32  |
| 0.732 | 0.176 | 0.575 | 858  | 0.226 |
| 0.386 | 0.142 | 0.469 | 782  | 0.094 |
| 0.202 | 0.142 | 0.469 | 892  | 0.094 |
| 0.898 | 0.152 | 0.489 | 494  | 0.292 |
| 0.872 | 0.238 | 0.515 | 372  | 0.076 |
| 0.662 | 0.256 | 0.54  | 1708 | 0.088 |
| 0.728 | 0.322 | 0.419 | 447  | 0.09  |
| 0.502 | 0.366 | 0.464 | 480  | 0.15  |
| 0.812 | 0.166 | 0.313 | 299  | 0.084 |
| 0.67  | 0.308 | 0.373 | 313  | 0.168 |
| 0.836 | 0.24  | 0.331 | 464  | 0.282 |
| 0.408 | 0.146 | 0.552 | 773  | 0.112 |
| 0.268 | 0.166 | 0.488 | 1031 | 0.088 |
| 0.092 | 0.228 | 0.459 | 528  | 0.022 |
| 0.494 | 0.136 | 0.366 | 849  | 0.052 |
| 0.95  | 0.262 | 0.395 | 580  | 0.384 |
| 0.324 | 0.266 | 0.407 | 802  | 0.408 |
| 0.624 | 0.218 | 0.387 | 295  | 0.106 |
| 0.256 | 0.194 | 0.491 | 439  | 0.112 |
| 0.692 | 0.326 | 0.408 | 905  | 0.396 |
| 0.478 | 0.232 | 0.498 | 729  | 0.36  |
| 0.418 | 0.172 | 0.393 | 611  | 0.128 |
| 0.654 | 0.152 | 0.584 | 841  | 0.328 |
| 0.416 | 0.332 | 0.582 | 712  | 0.146 |
| 0.32  | 0.568 | 0.26  | 818  | 0.274 |
| 0.838 | 0.3   | 0.422 | 821  | 0.32  |
| 0.914 | 0.578 | 0.251 | 285  | 0.922 |
| 0.176 | 0.37  | 0.426 | 657  | 0.114 |
| 0.198 | 0.066 | 0.633 | 3664 | 0.044 |
| 0.154 | 0.126 | 0.558 | 8358 | 0.12  |
| 0.144 | 0.066 | 0.633 | 3940 | 0.044 |
| 0.138 | 0.066 | 0.633 | 4537 | 0.044 |
| 0.102 | 0.158 | 0.544 | 5368 | 0.096 |
| 0.484 | 0.266 | 0.475 | 1400 | 0.04  |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.304 | 0.266 | 0.475 | 1682  | 0.04  |
| 0.18  | 0.026 | 0.684 | 2688  | 0.212 |
| 0.274 | 0.102 | 0.712 | 3664  | 0.09  |
| 0.804 | 0.186 | 0.516 | 836   | 0.202 |
| 0.132 | 0.016 | 0.685 | 1310  | 0.286 |
| 0.318 | 0.088 | 0.408 | 871   | 0.204 |
| 0.04  | 0.032 | 0.58  | 1169  | 0.048 |
| 0.696 | 0.228 | 0.307 | 10981 | 0.064 |
| 0.114 | 0.078 | 0.246 | 2088  | 0.15  |
| 0.278 | 0.22  | 0.364 | 1305  | 0.528 |
| 0.072 | 0.198 | 0.372 | 1757  | 0.098 |
| 0.166 | 0.03  | 0.247 | 1018  | 0.264 |
| 0.124 | 0.148 | 0.38  | 2217  | 0.088 |
| 0.198 | 0.498 | 0.543 | 2957  | 0.008 |
| 0.118 | 0.12  | 0.433 | 1096  | 0.098 |
| 0.142 | 0.196 | 0.377 | 1507  | 0.058 |
| 0.044 | 0.256 | 0.478 | 732   | 0.308 |
| 0.6   | 0.266 | 0.238 | 1314  | 0.584 |
| 0.322 | 0.086 | 0.433 | 780   | 0.212 |
| 0.32  | 0.076 | 0.352 | 766   | 0.62  |
| 0.25  | 0.188 | 0.296 | 1343  | 0.016 |
| 0.05  | 0.19  | 0.353 | 1674  | 0.084 |
| 0.848 | 0.09  | 0.535 | 679   | 0.246 |
| 0.624 | 0.824 | 0.47  | 143   | 0.178 |
| 0.114 | 0.652 | 0.654 | 5846  | 0.06  |
| 0.3   | 0.11  | 0.526 | 3783  | 0.128 |
| 0.498 | 0.088 | 0.565 | 1468  | 0.61  |
| 0.674 | 0.002 | 0.213 | 642   | 0.096 |
| 0.32  | 0.02  | 0.536 | 4119  | 0.138 |
| 0.444 | 0.086 | 0.163 | 1094  | 0.216 |
| 0.31  | 0.114 | 0.591 | 3375  | 0.152 |
| 0.284 | 0     | 0.416 | 1214  | 0.178 |
| 0.128 | 0     | 0.416 | 3822  | 0.178 |
| 0.178 | 0.086 | 0.518 | 5070  | 0.112 |
| 0.208 | 0.044 | 0.431 | 4600  | 0.032 |
| 0.418 | 0.114 | 0.767 | 917   | 0.046 |
| 0.356 | 0.004 | 0.666 | 1814  | 0.04  |
| 0.502 | 0.2   | 0.6   | 541   | 0.426 |
| 0.352 | 0.65  | 0.676 | 859   | 0.492 |
| 0.134 | 0.052 | 0.676 | 897   | 0.316 |
| 0.306 | 0.002 | 0.513 | 890   | 0.17  |

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.604 | 0.912 | 0.511 | 1660 | 0.26  |
| 0.618 | 0.134 | 0.671 | 2788 | 0.212 |
| 0.238 | 0.078 | 0.519 | 2647 | 0.172 |
| 0.25  | 0.002 | 0.539 | 3378 | 0.166 |
| 0.328 | 0.096 | 0.573 | 4235 | 0.11  |
| 0.718 | 0.116 | 0.406 | 498  | 0.36  |
| 0.512 | 0.218 | 0.509 | 2173 | 0.192 |
| 0.172 | 0.046 | 0.717 | 1980 | 0.29  |
| 0.594 | 0.152 | 0.558 | 959  | 0.162 |
| 0.534 | 0.124 | 0.634 | 434  | 0.404 |
| 0.582 | 0.73  | 0.565 | 145  | 0.33  |
| 0.358 | 1     | 0.673 | 1640 | 0.706 |
| 0.558 | 0.064 | 0.494 | 528  | 0.594 |
| 0.13  | 0.108 | 0.451 | 158  | 0.01  |
| 0.246 | 0.022 | 0.355 | 4049 | 0.162 |
| 0.692 | 0.872 | 0.643 | 641  | 0.28  |
| 0.3   | 0.1   | 0.525 | 1378 | 0.208 |
| 0.422 | 0.438 | 0.249 | 316  | 0.246 |
| 0.596 | 0.246 | 0.237 | 2065 | 0.344 |
| 0.586 | 0.208 | 0.413 | 536  | 0.172 |
| 0.43  | 0.114 | 0.767 | 1117 | 0.046 |
| 0.346 | 0.106 | 0.405 | 4573 | 0.15  |
| 0.348 | 0.06  | 0.509 | 4507 | 0.146 |
| 0.208 | 0.212 | 0.539 | 4254 | 0.122 |
| 0.6   | 0.208 | 0.441 | 800  | 0.342 |
| 0.51  | 0.024 | 0.636 | 1733 | 0.296 |
| 0.584 | 0.102 | 0.648 | 1624 | 0.232 |
| 0.186 | 0.002 | 0.523 | 6135 | 0.154 |
| 0.478 | 0.122 | 0.712 | 579  | 0.422 |
| 0.26  | 0.046 | 0.416 | 3471 | 0.13  |
| 0.438 | 0.438 | 0.249 | 64   | 0.246 |
| 0.478 | 0.32  | 0.365 | 2029 | 0.182 |
| 0.664 | 0.552 | 0.309 | 523  | 0.728 |
| 0.866 | 0.802 | 0.352 | 663  | 0.792 |
| 0.884 | 0.252 | 0.326 | 736  | 0.298 |
| 0.654 | 0.14  | 0.472 | 1036 | 0.228 |
| 0.234 | 0.212 | 0.549 | 3701 | 0.164 |
| 0.388 | 0.15  | 0.297 | 2132 | 0.306 |
| 0.628 | 0.532 | 0.299 | 512  | 0.75  |
| 0.488 | 0.47  | 0.181 | 3111 | 0.956 |
| 0.12  | 0.002 | 0.523 | 7980 | 0.154 |

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.65  | 0.176 | 0.715 | 534  | 0.534 |
| 0.386 | 0.084 | 0.78  | 862  | 0.072 |
| 0.47  | 0.32  | 0.531 | 488  | 0.082 |
| 0.438 | 0.516 | 0.639 | 261  | 0.642 |
| 0.43  | 0.206 | 0.341 | 269  | 0.238 |
| 0.524 | 0.284 | 0.309 | 329  | 0.552 |
| 0.536 | 0.152 | 0.518 | 2918 | 0.238 |
| 0.714 | 0.154 | 0.46  | 1053 | 0.228 |
| 0.636 | 0.02  | 0.755 | 611  | 0.492 |
| 0.57  | 0.134 | 0.455 | 759  | 0.24  |
| 0.584 | 0.12  | 0.323 | 1482 | 0.538 |
| 0.122 | 0.274 | 0.551 | 3142 | 0.266 |
| 0.37  | 0.128 | 0.625 | 5080 | 0.378 |
| 0.708 | 0.246 | 0.52  | 531  | 0.258 |
| 0.708 | 0.246 | 0.52  | 531  | 0.258 |
| 0.626 | 0.2   | 0.378 | 364  | 0.384 |
| 0.758 | 0.216 | 0.308 | 388  | 0.296 |
| 0.374 | 0.336 | 0.269 | 201  | 0.656 |
| 0.67  | 0.316 | 0.323 | 330  | 0.674 |
| 0.51  | 0.202 | 0.345 | 502  | 0.244 |
| 0.698 | 0.088 | 0.538 | 674  | 0.25  |
| 0.754 | 0.2   | 0.422 | 648  | 0.218 |
| 0.698 | 0.24  | 0.35  | 473  | 0.52  |
| 0.546 | 0.344 | 0.275 | 814  | 0.406 |
| 0.834 | 0.31  | 0.282 | 281  | 0.69  |
| 0.696 | 0.232 | 0.399 | 412  | 0.238 |
| 0.672 | 0.366 | 0.287 | 326  | 0.578 |
| 0.66  | 0.228 | 0.32  | 493  | 0.508 |
| 0.774 | 0.188 | 0.421 | 439  | 0.276 |
| 0.72  | 0.154 | 0.406 | 493  | 0.308 |
| 0.6   | 0.29  | 0.492 | 934  | 0.282 |
| 0.742 | 0.31  | 0.416 | 733  | 0.494 |
| 0.65  | 0.304 | 0.448 | 875  | 0.254 |
| 0.702 | 0.15  | 0.403 | 384  | 0.298 |
| 0.632 | 0.204 | 0.338 | 441  | 0.178 |
| 0.704 | 0.248 | 0.381 | 312  | 0.27  |
| 0.608 | 0.324 | 0.311 | 446  | 0.282 |
| 0.724 | 0.126 | 0.416 | 485  | 0.296 |
| 0.892 | 0.302 | 0.304 | 281  | 0.31  |
| 0.89  | 0.302 | 0.304 | 283  | 0.31  |
| 0.41  | 0.112 | 0.618 | 2006 | 0.158 |



|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.268 | 0.214 | 0.705 | 551  | 0.192 |
| 0.564 | 0.066 | 0.521 | 3651 | 0.22  |
| 0.066 | 0.194 | 0.562 | 511  | 0.302 |
| 0.066 | 0.036 | 0.517 | 2618 | 0.194 |
| 0.654 | 0.14  | 0.472 | 1036 | 0.228 |
| 0.536 | 0.152 | 0.518 | 2918 | 0.238 |
| 0.642 | 0.974 | 0.714 | 64   | 0.33  |
| 0.572 | 0.108 | 0.69  | 943  | 0.23  |
| 0.158 | 0.156 | 0.485 | 2597 | 0.25  |
| 0.4   | 0.136 | 0.735 | 3460 | 0.15  |
| 0.24  | 0.216 | 0.472 | 4077 | 0.348 |
| 0.252 | 0.436 | 0.538 | 3930 | 0.266 |
| 0.334 | 0.206 | 0.341 | 181  | 0.238 |
| 0.448 | 0.398 | 0.321 | 634  | 0.198 |
| 0.164 | 0.174 | 0.551 | 2651 | 0.22  |
| 0.234 | 0.072 | 0.623 | 4913 | 0.232 |
| 0.154 | 0.074 | 0.563 | 2814 | 0.3   |
| 0.154 | 0.234 | 0.555 | 2597 | 0.28  |
| 0.404 | 0.08  | 0.621 | 1734 | 0.23  |
| 0.172 | 0.216 | 0.472 | 4031 | 0.348 |
| 0.144 | 0.222 | 0.582 | 2241 | 0.258 |
| 0.226 | 0.172 | 0.577 | 4824 | 0.18  |
| 0.432 | 0.234 | 0.676 | 3308 | 0.156 |
| 0.098 | 0.108 | 0.734 | 8866 | 0.336 |
| 0.182 | 0.1   | 0.563 | 2860 | 0.302 |
| 0.478 | 0.148 | 0.799 | 2055 | 0.358 |
| 0.4   | 0.122 | 0.735 | 5050 | 0.162 |
| 0.224 | 0.012 | 0.656 | 3778 | 0.268 |
| 0.236 | 0.108 | 0.518 | 4059 | 0.324 |
| 0.476 | 0.188 | 0.348 | 282  | 0.234 |
| 0.38  | 0.152 | 0.615 | 4368 | 0.198 |
| 0.416 | 0.086 | 0.681 | 2240 | 0.172 |
| 0.232 | 0.186 | 0.561 | 3029 | 0.176 |
| 0.234 | 0.072 | 0.623 | 4913 | 0.232 |
| 0.154 | 0.074 | 0.563 | 2814 | 0.3   |
| 0.866 | 0.218 | 0.36  | 641  | 0.588 |
| 0.7   | 0.128 | 0.395 | 618  | 0.56  |
| 0.736 | 0.23  | 0.334 | 634  | 0.59  |
| 0.684 | 0.148 | 0.366 | 479  | 0.566 |
| 0.374 | 0.046 | 0.746 | 2147 | 0.142 |
| 0.604 | 0.206 | 0.523 | 512  | 0.43  |

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.44  | 0.288 | 0.443 | 1505 | 0.194 |
| 0.856 | 0.362 | 0.393 | 539  | 0.338 |
| 0.5   | 0.368 | 0.354 | 424  | 0.416 |
| 0.6   | 0.212 | 0.264 | 859  | 0.906 |
| 0.748 | 0.168 | 0.392 | 2387 | 0.6   |
| 0.83  | 0.126 | 0.524 | 2186 | 0.572 |
| 0.71  | 0.23  | 0.352 | 1489 | 0.436 |
| 0.81  | 0.23  | 0.352 | 1344 | 0.436 |
| 0.192 | 0.256 | 0.52  | 2847 | 0.28  |
| 0.158 | 0.156 | 0.485 | 2597 | 0.25  |
| 0.478 | 0.078 | 0.341 | 790  | 0.256 |
| 0.48  | 0.016 | 0.542 | 611  | 0.068 |
| 0.174 | 0.008 | 0.536 | 2242 | 0.688 |
| 0.834 | 0.24  | 0.556 | 1012 | 0.05  |
| 0.442 | 0.112 | 0.687 | 2469 | 0.388 |
| 0.196 | 0.018 | 0.598 | 1071 | 0.172 |
| 0.308 | 0.176 | 0.703 | 1528 | 0.422 |
| 0.566 | 0.022 | 0.588 | 472  | 0.082 |
| 0.448 | 0.398 | 0.321 | 634  | 0.198 |
| 0.366 | 0.052 | 0.648 | 1423 | 0.316 |
| 0.236 | 0.016 | 0.484 | 4481 | 0.274 |
| 0.172 | 0.116 | 0.453 | 2645 | 0.254 |
| 0.268 | 0.214 | 0.38  | 4543 | 0.234 |
| 0.436 | 0.06  | 0.572 | 1754 | 0.216 |
| 0.394 | 0.054 | 0.552 | 2620 | 0.132 |
| 0.388 | 0.242 | 0.32  | 284  | 0.314 |
| 0.82  | 0.202 | 0.52  | 449  | 0.296 |
| 0.304 | 0.126 | 0.752 | 3010 | 0.312 |
| 0.438 | 0.076 | 0.56  | 4616 | 0.256 |
| 0.318 | 0.014 | 0.324 | 4259 | 0.336 |
| 0.284 | 0.088 | 0.5   | 4040 | 0.36  |
| 0.012 | 0.3   | 0.25  | 314  | 0.18  |
| 0.162 | 0.42  | 0.485 | 405  | 0.456 |
| 0.712 | 0.292 | 0.356 | 337  | 0.42  |
| 0.752 | 0.318 | 0.364 | 158  | 0.406 |
| 0.71  | 0.258 | 0.438 | 419  | 0.372 |
| 0.62  | 0.306 | 0.385 | 323  | 0.282 |
| 0.288 | 0.014 | 0.564 | 2548 | 0.13  |
| 0.362 | 0.172 | 0.349 | 158  | 0.236 |
| 0.318 | 0.05  | 0.339 | 1872 | 0.172 |
| 0.192 | 0.086 | 0.691 | 4151 | 0.368 |

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.35  | 0.156 | 0.372 | 242  | 0.24  |
| 0.192 | 0.256 | 0.52  | 2907 | 0.28  |
| 0.242 | 0.008 | 0.433 | 4049 | 0.278 |
| 0.634 | 0.204 | 0.31  | 474  | 0.298 |
| 0.38  | 0.18  | 0.474 | 837  | 0.354 |
| 0.596 | 0.122 | 0.534 | 1385 | 0.244 |
| 0.774 | 0.278 | 0.383 | 457  | 0.294 |
| 0.604 | 0.164 | 0.524 | 1384 | 0.28  |
| 0.808 | 0.346 | 0.369 | 466  | 0.324 |
| 0.352 | 0.174 | 0.557 | 1223 | 0.222 |
| 0.706 | 0.264 | 0.343 | 1010 | 0.622 |
| 0.564 | 0.172 | 0.484 | 1332 | 0.268 |
| 0.54  | 0.3   | 0.345 | 335  | 0.31  |
| 0.46  | 0.208 | 0.469 | 1109 | 0.308 |
| 0.546 | 0.078 | 0.537 | 758  | 0.282 |
| 0.718 | 0.096 | 0.418 | 348  | 0.374 |
| 0.584 | 0.11  | 0.56  | 704  | 0.316 |
| 0.47  | 0.122 | 0.57  | 838  | 0.368 |
| 0.488 | 0.108 | 0.541 | 731  | 0.308 |
| 0.786 | 0.132 | 0.402 | 363  | 0.398 |
| 0.714 | 0.27  | 0.364 | 173  | 0.372 |
| 0.698 | 0.276 | 0.363 | 195  | 0.344 |
| 0.762 | 0.218 | 0.441 | 352  | 0.34  |
| 0.83  | 0.268 | 0.291 | 341  | 0.7   |
| 0.822 | 0.302 | 0.409 | 776  | 0.566 |
| 0.464 | 0.112 | 0.618 | 2195 | 0.158 |
| 0.57  | 0.134 | 0.455 | 759  | 0.24  |
| 0.56  | 0.112 | 0.484 | 873  | 0.23  |
| 0.494 | 0.158 | 0.627 | 1964 | 0.172 |
| 0.418 | 0.09  | 0.647 | 2658 | 0.25  |
| 0.512 | 0.112 | 0.618 | 2143 | 0.158 |
| 0.61  | 0.112 | 0.484 | 946  | 0.23  |
| 0.744 | 0.254 | 0.398 | 493  | 0.294 |
| 0.662 | 0.206 | 0.41  | 376  | 0.36  |
| 0.464 | 0.112 | 0.618 | 2195 | 0.158 |
| 0.56  | 0.112 | 0.484 | 873  | 0.23  |
| 0.648 | 0.078 | 0.476 | 861  | 0.56  |
| 0.62  | 0.126 | 0.474 | 990  | 0.644 |
| 0.724 | 0.256 | 0.378 | 817  | 0.55  |
| 0.81  | 0.206 | 0.399 | 746  | 0.52  |
| 0.73  | 0.34  | 0.341 | 941  | 0.63  |

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.75  | 0.3   | 0.369 | 861  | 0.598 |
| 0.81  | 0.366 | 0.287 | 322  | 0.578 |
| 0.668 | 0.388 | 0.366 | 996  | 0.678 |
| 0.57  | 0.214 | 0.552 | 1319 | 0.29  |
| 0.844 | 0.362 | 0.393 | 529  | 0.338 |
| 0.242 | 0.168 | 0.546 | 1507 | 0.258 |
| 0.428 | 0.23  | 0.501 | 773  | 0.352 |
| 0.534 | 0.368 | 0.354 | 422  | 0.416 |
| 0.768 | 0.322 | 0.477 | 908  | 0.624 |
| 0.716 | 0.28  | 0.351 | 408  | 0.186 |
| 0.518 | 0.304 | 0.389 | 886  | 0.174 |
| 0.39  | 0.396 | 0.306 | 402  | 0.378 |
| 0.438 | 0.362 | 0.357 | 479  | 0.408 |
| 0.472 | 0.34  | 0.259 | 521  | 0.388 |
| 0.522 | 0.312 | 0.252 | 587  | 0.356 |
| 0.528 | 0.37  | 0.228 | 720  | 0.374 |
| 0.652 | 0.232 | 0.399 | 432  | 0.238 |
| 0.656 | 0.21  | 0.42  | 514  | 0.262 |
| 0.712 | 0.296 | 0.372 | 845  | 0.606 |
| 0.826 | 0.22  | 0.331 | 397  | 0.546 |
| 0.83  | 0.268 | 0.291 | 341  | 0.7   |
| 0.844 | 0.22  | 0.331 | 413  | 0.546 |
| 0.726 | 0.12  | 0.251 | 36   | 0.526 |
| 0.556 | 0.208 | 0.506 | 1171 | 0.166 |
| 0.362 | 0.01  | 0.691 | 866  | 0.042 |
| 0.466 | 0.012 | 0.675 | 2036 | 0.46  |
| 0.358 | 0.274 | 0.322 | 299  | 0.606 |
| 0.21  | 0.13  | 0.568 | 1956 | 0.384 |
| 0.044 | 0     | 0.416 | 1536 | 0.178 |
| 0.862 | 0.49  | 0.32  | 2495 | 0.634 |
| 0.878 | 0.25  | 0.381 | 790  | 0.418 |
| 0.682 | 0.044 | 0.186 | 678  | 0.904 |
| 0.434 | 0.046 | 0.57  | 2029 | 0.182 |
| 0.208 | 0.014 | 0.494 | 4671 | 0.204 |
| 0.252 | 0.078 | 0.549 | 5005 | 0.156 |
| 0.318 | 0.112 | 0.495 | 3064 | 0.216 |
| 0.138 | 0.152 | 0.533 | 3879 | 0.158 |
| 0.362 | 0.006 | 0.84  | 6270 | 0.31  |
| 0.358 | 0.006 | 0.84  | 6449 | 0.31  |
| 0.626 | 0.268 | 0.311 | 331  | 0.264 |
| 0.704 | 0.216 | 0.308 | 356  | 0.296 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.38  | 0.18  | 0.474 | 837   | 0.354 |
| 0.668 | 0.148 | 0.563 | 1330  | 0.178 |
| 0.358 | 0.006 | 0.55  | 3597  | 0.1   |
| 0.594 | 0.024 | 0.636 | 1678  | 0.296 |
| 0.732 | 0.224 | 0.415 | 445   | 0.248 |
| 0.684 | 0.312 | 0.394 | 260   | 0.428 |
| 0.294 | 0.032 | 0.878 | 3971  | 0.286 |
| 0.678 | 0.172 | 0.499 | 1905  | 0.484 |
| 0.642 | 0.17  | 0.499 | 1258  | 0.44  |
| 0.796 | 0.286 | 0.471 | 826   | 0.668 |
| 0.208 | 0.252 | 0.62  | 4308  | 0.186 |
| 0.618 | 0.13  | 0.526 | 710   | 0.236 |
| 0.754 | 0.13  | 0.526 | 714   | 0.236 |
| 0.842 | 0.09  | 0.535 | 679   | 0.246 |
| 0.65  | 0.25  | 0.386 | 208   | 0.288 |
| 0.674 | 0.14  | 0.525 | 759   | 0.282 |
| 0.72  | 0.374 | 0.362 | 213   | 0.398 |
| 0.694 | 0.178 | 0.468 | 685   | 0.322 |
| 0.746 | 0.14  | 0.525 | 746   | 0.282 |
| 0.608 | 0.194 | 0.563 | 593   | 0.334 |
| 0.65  | 0.25  | 0.386 | 208   | 0.288 |
| 0.69  | 0.244 | 0.387 | 212   | 0.31  |
| 0.662 | 0.322 | 0.37  | 194   | 0.316 |
| 0.314 | 0.324 | 0.499 | 3805  | 0.298 |
| 0.73  | 0.22  | 0.354 | 616   | 0.602 |
| 0.64  | 0.148 | 0.488 | 1883  | 0.494 |
| 0.58  | 0.152 | 0.433 | 1075  | 0.272 |
| 0.488 | 0.358 | 0.339 | 310   | 0.546 |
| 0.412 | 0.242 | 0.324 | 360   | 0.492 |
| 0.236 | 0.328 | 0.31  | 147   | 0.61  |
| 0.404 | 0.3   | 0.329 | 149   | 0.588 |
| 0.508 | 0.054 | 0.579 | 2109  | 0.334 |
| 0.402 | 0.064 | 0.322 | 6104  | 0.444 |
| 0.388 | 0.05  | 0.215 | 2522  | 0.434 |
| 0.432 | 0.108 | 0.635 | 3482  | 0.426 |
| 0.11  | 0.156 | 0.594 | 621   | 0.346 |
| 0.294 | 0.118 | 0.487 | 1813  | 0.146 |
| 0.068 | 0     | 0.484 | 12598 | 0.154 |
| 0.904 | 0.19  | 0.507 | 725   | 0.684 |
| 0.118 | 0.652 | 0.654 | 6149  | 0.06  |
| 0.15  | 0.186 | 0.46  | 1930  | 0.1   |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.342 | 0.22  | 0.322 | 141   | 0.256 |
| 0.338 | 0.022 | 0.792 | 2084  | 0.264 |
| 0.138 | 0.102 | 0.703 | 4721  | 0.326 |
| 0.124 | 0.664 | 0.815 | 267   | 0.148 |
| 0.08  | 0.956 | 0.635 | 142   | 0.224 |
| 0.622 | 0.79  | 0.62  | 119   | 0.302 |
| 0.452 | 0.12  | 0.33  | 223   | 0.26  |
| 0.164 | 0.03  | 0.791 | 1855  | 0.246 |
| 0.604 | 0.386 | 0.518 | 2520  | 0.454 |
| 0.29  | 0.004 | 0.586 | 3536  | 0.292 |
| 0.394 | 0.054 | 0.552 | 2620  | 0.132 |
| 0.6   | 0.21  | 0.452 | 328   | 0.262 |
| 0.58  | 0.228 | 0.425 | 439   | 0.232 |
| 0.784 | 0.106 | 0.441 | 511   | 0.254 |
| 0.034 | 0.234 | 0.542 | 167   | 0.294 |
| 0.378 | 0.818 | 0.501 | 133   | 0.418 |
| 0.352 | 0.3   | 0.47  | 747   | 0.194 |
| 0.258 | 0.078 | 0.549 | 5400  | 0.156 |
| 0.366 | 0.074 | 0.622 | 1858  | 0.258 |
| 0.258 | 0.216 | 0.472 | 4059  | 0.348 |
| 0.374 | 0.082 | 0.675 | 4350  | 0.328 |
| 0.256 | 0.268 | 0.388 | 4059  | 0.296 |
| 0.416 | 0.05  | 0.615 | 3893  | 0.178 |
| 0.56  | 0.23  | 0.408 | 1570  | 0.568 |
| 0.3   | 0.176 | 0.578 | 1510  | 0.148 |
| 0.67  | 0.376 | 0.194 | 590   | 0.522 |
| 0.124 | 0.04  | 0.696 | 616   | 0.07  |
| 0.618 | 0.142 | 0.497 | 1749  | 0.426 |
| 0.23  | 0.032 | 0.878 | 3017  | 0.286 |
| 0.022 | 0     | 0.484 | 13995 | 0.154 |
| 0.678 | 0.112 | 0.505 | 784   | 0.14  |
| 0.312 | 0.026 | 0.759 | 2671  | 0.3   |
| 0.302 | 0.038 | 0.738 | 5815  | 0.374 |
| 0.218 | 0     | 0.807 | 10054 | 0.324 |
| 0.656 | 0.122 | 0.522 | 1336  | 0.576 |
| 0.326 | 0.238 | 0.606 | 1600  | 0.108 |
| 0.6   | 0.15  | 0.418 | 1288  | 0.442 |
| 0.42  | 0.138 | 0.465 | 2252  | 0.268 |
| 0.412 | 0.046 | 0.319 | 1649  | 0.228 |
| 0.3   | 0.072 | 0.565 | 5727  | 0.36  |
| 0.45  | 0.07  | 0.539 | 835   | 0.338 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.368 | 0.044 | 0.431 | 1590  | 0.032 |
| 0.556 | 0.026 | 0.565 | 923   | 0.22  |
| 0.418 | 0.058 | 0.614 | 1741  | 0.262 |
| 0.69  | 0.232 | 0.389 | 534   | 0.266 |
| 0.094 | 0.044 | 0.657 | 111   | 0.22  |
| 0.12  | 0.652 | 0.654 | 5405  | 0.06  |
| 0.336 | 0.094 | 0.885 | 1872  | 0.126 |
| 0.466 | 0.118 | 0.57  | 3920  | 0.284 |
| 0.44  | 0.19  | 0.481 | 996   | 0.238 |
| 0.224 | 1     | 0.664 | 582   | 0.816 |
| 0.674 | 0.686 | 0.258 | 645   | 0.916 |
| 0.274 | 0.282 | 0.647 | 3953  | 0.292 |
| 0.424 | 0.012 | 0.379 | 4790  | 0.274 |
| 0.444 | 0.014 | 0.687 | 2507  | 0.186 |
| 0.414 | 0.028 | 0.802 | 8849  | 0.398 |
| 0.068 | 0.016 | 0.645 | 10089 | 0.338 |
| 0.194 | 0.14  | 0.402 | 2440  | 0.244 |
| 0.592 | 0.74  | 0.278 | 737   | 0.9   |
| 0.772 | 0.12  | 0.479 | 846   | 0.596 |
| 0.79  | 0.124 | 0.409 | 518   | 0.612 |
| 0.788 | 0.24  | 0.391 | 367   | 0.622 |
| 0.662 | 0.42  | 0.316 | 471   | 0.55  |
| 0.306 | 0.03  | 0.568 | 3068  | 0.086 |
| 0.588 | 0.798 | 0.561 | 133   | 0.386 |
| 0.478 | 0.192 | 0.547 | 1710  | 0.452 |
| 0.104 | 0.054 | 0.602 | 1806  | 0.286 |
| 0.714 | 0.236 | 0.282 | 1850  | 0.188 |
| 0.59  | 0.108 | 0.299 | 2549  | 0.526 |
| 0.302 | 0.01  | 0.621 | 1259  | 0.374 |
| 0.098 | 0.116 | 0.392 | 1141  | 0.204 |
| 0.328 | 0.076 | 0.47  | 2183  | 0.268 |
| 0.194 | 0.01  | 0.81  | 6457  | 0.34  |
| 0.358 | 0.848 | 0.587 | 70    | 0.148 |
| 0.36  | 0.736 | 0.882 | 2438  | 0.146 |
| 0.792 | 0.68  | 0.029 | 1130  | 0.164 |
| 0.366 | 0.074 | 0.729 | 6593  | 0.38  |
| 0.628 | 0.864 | 0.444 | 1151  | 0.088 |
| 0.18  | 0.284 | 0.375 | 269   | 0.47  |
| 0.274 | 0.022 | 0.835 | 2931  | 0.28  |
| 0.474 | 0.012 | 0.613 | 1261  | 0.07  |
| 0.316 | 0.054 | 0.543 | 3383  | 0.228 |

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.372 | 0.028 | 0.709 | 3157  | 0.158 |
| 0.314 | 0.05  | 0.707 | 4625  | 0.148 |
| 0.256 | 0.192 | 0.777 | 434   | 0.588 |
| 0.28  | 0.032 | 0.878 | 3918  | 0.286 |
| 0.122 | 0     | 0.484 | 11043 | 0.154 |
| 0.53  | 0.108 | 0.541 | 703   | 0.308 |
| 0.75  | 0.3   | 0.369 | 861   | 0.598 |
| 0.73  | 0.34  | 0.341 | 941   | 0.63  |
| 0.784 | 0.352 | 0.368 | 1413  | 0.236 |
| 0.856 | 0.368 | 0.273 | 1603  | 0.254 |
| 0.24  | 0.032 | 0.878 | 3531  | 0.286 |
| 0.296 | 0.36  | 0.624 | 2629  | 0.07  |
| 0.288 | 0.308 | 0.763 | 1838  | 0.096 |
| 0.124 | 0.04  | 0.696 | 616   | 0.07  |
| 0.046 | 0.016 | 0.645 | 12161 | 0.338 |
| 0.494 | 0.158 | 0.627 | 1964  | 0.172 |
| 0.544 | 0.192 | 0.681 | 1621  | 0.208 |
| 0.58  | 0.118 | 0.472 | 986   | 0.34  |
| 0.478 | 0.172 | 0.453 | 599   | 0.306 |
| 0.62  | 0.118 | 0.472 | 755   | 0.34  |
| 0.478 | 0.172 | 0.453 | 525   | 0.306 |
| 0.312 | 0.644 | 0.269 | 323   | 0.656 |
| 0.308 | 0.142 | 0.65  | 3724  | 0.06  |
| 0.154 | 0.102 | 0.267 | 1862  | 0.262 |
| 0.57  | 0.672 | 0.656 | 353   | 0.28  |
| 0.308 | 0.03  | 0.568 | 4082  | 0.086 |
| 0.032 | 0     | 0.484 | 14832 | 0.154 |
| 0.1   | 0.652 | 0.654 | 4305  | 0.06  |
| 0.472 | 0.098 | 0.732 | 3390  | 0.314 |
| 0.548 | 0.038 | 0.646 | 2156  | 0.422 |
| 0.802 | 0.262 | 0.456 | 634   | 0.558 |
| 0.788 | 0.426 | 0.331 | 309   | 0.59  |
| 0.344 | 0.02  | 0.536 | 4415  | 0.138 |
| 0.238 | 0.022 | 0.758 | 370   | 0.084 |
| 0.514 | 0.038 | 0.511 | 1472  | 0.23  |
| 0.47  | 0.174 | 0.623 | 347   | 0.48  |
| 0.494 | 0.08  | 0.465 | 2170  | 0.552 |
| 0.496 | 0.102 | 0.648 | 1621  | 0.232 |
| 0.458 | 0.158 | 0.776 | 653   | 0.284 |
| 0.678 | 0.01  | 0.691 | 815   | 0.042 |
| 0.486 | 0.16  | 0.549 | 2633  | 0.344 |



|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0.504 | 0.118 | 0.457 | 174   | 0.124 |
| 0.154 | 0.072 | 0.153 | 2034  | 0.122 |
| 0.412 | 0.012 | 0.613 | 2017  | 0.07  |
| 0.31  | 0.006 | 0.584 | 3963  | 0.076 |
| 0.558 | 0.74  | 0.278 | 699   | 0.9   |
| 0.556 | 0.284 | 0.546 | 1235  | 0.222 |
| 0.714 | 0.308 | 0.504 | 347   | 0.262 |
| 0.706 | 0.348 | 0.478 | 1287  | 0.524 |
| 0.622 | 0.318 | 0.361 | 545   | 0.574 |
| 0.64  | 0.386 | 0.422 | 717   | 0.522 |
| 0.846 | 0.74  | 0.427 | 1044  | 0.664 |
| 0.912 | 0.538 | 0.336 | 468   | 0.696 |
| 0.748 | 0.344 | 0.382 | 1318  | 0.516 |
| 0.546 | 0.266 | 0.415 | 256   | 0.312 |
| 0.176 | 0.108 | 0.734 | 7221  | 0.336 |
| 0.322 | 0.092 | 0.286 | 3526  | 0.264 |
| 0.508 | 0.076 | 0.607 | 687   | 0.166 |
| 0.166 | 0.132 | 0.417 | 2579  | 0.288 |
| 0.486 | 0.112 | 0.618 | 1330  | 0.158 |
| 0.102 | 0.108 | 0.734 | 7271  | 0.336 |
| 0.772 | 0.634 | 0.654 | 2464  | 0.22  |
| 0.086 | 0.048 | 0.364 | 1089  | 0.048 |
| 0.32  | 0.082 | 0.461 | 4269  | 0.182 |
| 0.33  | 0.038 | 0.59  | 2923  | 0.068 |
| 0.65  | 0.304 | 0.448 | 875   | 0.254 |
| 0.256 | 0.202 | 0.503 | 443   | 0.438 |
| 0.19  | 0.01  | 0.691 | 889   | 0.042 |
| 0.162 | 0.006 | 0.613 | 819   | 0.072 |
| 0.194 | 0.014 | 0.494 | 4471  | 0.204 |
| 0.684 | 0.242 | 0.422 | 1636  | 0.632 |
| 0.596 | 0.17  | 0.39  | 2182  | 0.518 |
| 0.252 | 0.078 | 0.549 | 5005  | 0.156 |
| 0.318 | 0.112 | 0.495 | 3064  | 0.216 |
| 0.066 | 0     | 0.484 | 14213 | 0.154 |
| 0.2   | 0.316 | 0.716 | 1661  | 0.028 |
| 0.088 | 0     | 0.484 | 12359 | 0.154 |
| 0.252 | 0.094 | 0.42  | 4240  | 0.348 |
| 0.538 | 0.068 | 0.657 | 1544  | 0.418 |
| 0.356 | 0.644 | 0.269 | 391   | 0.656 |
| 0.752 | 0.37  | 0.378 | 1420  | 0.284 |
|       |       |       |       |       |

|       |   |         |      |       |
|-------|---|---------|------|-------|
|       |   |         |      |       |
|       |   |         |      |       |
|       |   |         |      |       |
|       |   |         |      |       |
|       | <b>Metabolites after MDS using CDK (165) (used for MDS using ADMET)</b> |         |      |       |
|       |   |         |      |       |
| H-HT  | AMES  | Skinsen | LD50 | DILI  |
| 0.604 | 0.912   | 0.511   | 1660 | 0.26  |
| 0.718 | 0.116   | 0.406   | 498  | 0.36  |
| 0.512 | 0.218   | 0.509   | 2173 | 0.192 |
| 0.586 | 0.208   | 0.413   | 536  | 0.172 |
| 0.6   | 0.208   | 0.441   | 800  | 0.342 |
| 0.584 | 0.102   | 0.648   | 1624 | 0.232 |
| 0.664 | 0.552   | 0.309   | 523  | 0.728 |
| 0.884 | 0.252   | 0.326   | 736  | 0.298 |
| 0.654 | 0.14  | 0.472   | 1036 | 0.228 |
| 0.628 | 0.532   | 0.299   | 512  | 0.75  |
| 0.536 | 0.152   | 0.518   | 2918 | 0.238 |
| 0.584 | 0.12  | 0.323   | 1482 | 0.538 |
| 0.626 | 0.2   | 0.378   | 364  | 0.384 |
| 0.51  | 0.202   | 0.345   | 502  | 0.244 |
| 0.698 | 0.088   | 0.538   | 674  | 0.25  |
| 0.754 | 0.2   | 0.422   | 648  | 0.218 |
| 0.698 | 0.24  | 0.35    | 473  | 0.52  |
| 0.546 | 0.344   | 0.275   | 814  | 0.406 |
| 0.834 | 0.31  | 0.282   | 281  | 0.69  |
| 0.774 | 0.188   | 0.421   | 439  | 0.276 |
| 0.72  | 0.154   | 0.406   | 493  | 0.308 |
| 0.6   | 0.29  | 0.492   | 934  | 0.282 |
| 0.65  | 0.304   | 0.448   | 875  | 0.254 |
| 0.702 | 0.15  | 0.403   | 384  | 0.298 |
| 0.632 | 0.204   | 0.338   | 441  | 0.178 |
| 0.704 | 0.248   | 0.381   | 312  | 0.27  |
| 0.608 | 0.324   | 0.311   | 446  | 0.282 |
| 0.724 | 0.126   | 0.416   | 485  | 0.296 |
| 0.41  | 0.112   | 0.618   | 2006 | 0.158 |
| 0.654 | 0.14  | 0.472   | 1036 | 0.228 |
| 0.448 | 0.398   | 0.321   | 634  | 0.198 |
| 0.432 | 0.234   | 0.676   | 3308 | 0.156 |
| 0.098 | 0.108   | 0.734   | 8866 | 0.336 |

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.478 | 0.148 | 0.799 | 2055 | 0.358 |
| 0.684 | 0.148 | 0.366 | 479  | 0.566 |
| 0.374 | 0.046 | 0.746 | 2147 | 0.142 |
| 0.604 | 0.206 | 0.523 | 512  | 0.43  |
| 0.748 | 0.168 | 0.392 | 2387 | 0.6   |
| 0.83  | 0.126 | 0.524 | 2186 | 0.572 |
| 0.448 | 0.398 | 0.321 | 634  | 0.198 |
| 0.712 | 0.292 | 0.356 | 337  | 0.42  |
| 0.71  | 0.258 | 0.438 | 419  | 0.372 |
| 0.62  | 0.306 | 0.385 | 323  | 0.282 |
| 0.634 | 0.204 | 0.31  | 474  | 0.298 |
| 0.38  | 0.18  | 0.474 | 837  | 0.354 |
| 0.596 | 0.122 | 0.534 | 1385 | 0.244 |
| 0.774 | 0.278 | 0.383 | 457  | 0.294 |
| 0.604 | 0.164 | 0.524 | 1384 | 0.28  |
| 0.808 | 0.346 | 0.369 | 466  | 0.324 |
| 0.352 | 0.174 | 0.557 | 1223 | 0.222 |
| 0.706 | 0.264 | 0.343 | 1010 | 0.622 |
| 0.564 | 0.172 | 0.484 | 1332 | 0.268 |
| 0.54  | 0.3   | 0.345 | 335  | 0.31  |
| 0.46  | 0.208 | 0.469 | 1109 | 0.308 |
| 0.546 | 0.078 | 0.537 | 758  | 0.282 |
| 0.584 | 0.11  | 0.56  | 704  | 0.316 |
| 0.47  | 0.122 | 0.57  | 838  | 0.368 |
| 0.488 | 0.108 | 0.541 | 731  | 0.308 |
| 0.698 | 0.276 | 0.363 | 195  | 0.344 |
| 0.762 | 0.218 | 0.441 | 352  | 0.34  |
| 0.822 | 0.302 | 0.409 | 776  | 0.566 |
| 0.494 | 0.158 | 0.627 | 1964 | 0.172 |
| 0.418 | 0.09  | 0.647 | 2658 | 0.25  |
| 0.512 | 0.112 | 0.618 | 2143 | 0.158 |
| 0.744 | 0.254 | 0.398 | 493  | 0.294 |
| 0.464 | 0.112 | 0.618 | 2195 | 0.158 |
| 0.648 | 0.078 | 0.476 | 861  | 0.56  |
| 0.62  | 0.126 | 0.474 | 990  | 0.644 |
| 0.724 | 0.256 | 0.378 | 817  | 0.55  |
| 0.81  | 0.206 | 0.399 | 746  | 0.52  |
| 0.73  | 0.34  | 0.341 | 941  | 0.63  |
| 0.75  | 0.3   | 0.369 | 861  | 0.598 |
| 0.668 | 0.388 | 0.366 | 996  | 0.678 |
| 0.57  | 0.214 | 0.552 | 1319 | 0.29  |

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.242 | 0.168 | 0.546 | 1507 | 0.258 |
| 0.428 | 0.23  | 0.501 | 773  | 0.352 |
| 0.534 | 0.368 | 0.354 | 422  | 0.416 |
| 0.768 | 0.322 | 0.477 | 908  | 0.624 |
| 0.528 | 0.37  | 0.228 | 720  | 0.374 |
| 0.656 | 0.21  | 0.42  | 514  | 0.262 |
| 0.712 | 0.296 | 0.372 | 845  | 0.606 |
| 0.726 | 0.12  | 0.251 | 36   | 0.526 |
| 0.21  | 0.13  | 0.568 | 1956 | 0.384 |
| 0.862 | 0.49  | 0.32  | 2495 | 0.634 |
| 0.434 | 0.046 | 0.57  | 2029 | 0.182 |
| 0.362 | 0.006 | 0.84  | 6270 | 0.31  |
| 0.358 | 0.006 | 0.84  | 6449 | 0.31  |
| 0.626 | 0.268 | 0.311 | 331  | 0.264 |
| 0.704 | 0.216 | 0.308 | 356  | 0.296 |
| 0.38  | 0.18  | 0.474 | 837  | 0.354 |
| 0.668 | 0.148 | 0.563 | 1330 | 0.178 |
| 0.594 | 0.024 | 0.636 | 1678 | 0.296 |
| 0.684 | 0.312 | 0.394 | 260  | 0.428 |
| 0.678 | 0.172 | 0.499 | 1905 | 0.484 |
| 0.642 | 0.17  | 0.499 | 1258 | 0.44  |
| 0.796 | 0.286 | 0.471 | 826  | 0.668 |
| 0.618 | 0.13  | 0.526 | 710  | 0.236 |
| 0.754 | 0.13  | 0.526 | 714  | 0.236 |
| 0.842 | 0.09  | 0.535 | 679  | 0.246 |
| 0.65  | 0.25  | 0.386 | 208  | 0.288 |
| 0.674 | 0.14  | 0.525 | 759  | 0.282 |
| 0.72  | 0.374 | 0.362 | 213  | 0.398 |
| 0.694 | 0.178 | 0.468 | 685  | 0.322 |
| 0.746 | 0.14  | 0.525 | 746  | 0.282 |
| 0.608 | 0.194 | 0.563 | 593  | 0.334 |
| 0.65  | 0.25  | 0.386 | 208  | 0.288 |
| 0.69  | 0.244 | 0.387 | 212  | 0.31  |
| 0.662 | 0.322 | 0.37  | 194  | 0.316 |
| 0.64  | 0.148 | 0.488 | 1883 | 0.494 |
| 0.402 | 0.064 | 0.322 | 6104 | 0.444 |
| 0.388 | 0.05  | 0.215 | 2522 | 0.434 |
| 0.432 | 0.108 | 0.635 | 3482 | 0.426 |
| 0.15  | 0.186 | 0.46  | 1930 | 0.1   |
| 0.338 | 0.022 | 0.792 | 2084 | 0.264 |
| 0.164 | 0.03  | 0.791 | 1855 | 0.246 |

|       |  |       |       |       |       |
|-------|--|-------|-------|-------|-------|
| 0.604 |  | 0.386 | 0.518 | 2520  | 0.454 |
| 0.29  |  | 0.004 | 0.586 | 3536  | 0.292 |
| 0.6   |  | 0.21  | 0.452 | 328   | 0.262 |
| 0.58  |  | 0.228 | 0.425 | 439   | 0.232 |
| 0.784 |  | 0.106 | 0.441 | 511   | 0.254 |
| 0.56  |  | 0.23  | 0.408 | 1570  | 0.568 |
| 0.618 |  | 0.142 | 0.497 | 1749  | 0.426 |
| 0.678 |  | 0.112 | 0.505 | 784   | 0.14  |
| 0.218 |  | 0     | 0.807 | 10054 | 0.324 |
| 0.326 |  | 0.238 | 0.606 | 1600  | 0.108 |
| 0.6   |  | 0.15  | 0.418 | 1288  | 0.442 |
| 0.418 |  | 0.058 | 0.614 | 1741  | 0.262 |
| 0.69  |  | 0.232 | 0.389 | 534   | 0.266 |
| 0.336 |  | 0.094 | 0.885 | 1872  | 0.126 |
| 0.274 |  | 0.282 | 0.647 | 3953  | 0.292 |
| 0.414 |  | 0.028 | 0.802 | 8849  | 0.398 |
| 0.068 |  | 0.016 | 0.645 | 10089 | 0.338 |
| 0.772 |  | 0.12  | 0.479 | 846   | 0.596 |
| 0.79  |  | 0.124 | 0.409 | 518   | 0.612 |
| 0.788 |  | 0.24  | 0.391 | 367   | 0.622 |
| 0.662 |  | 0.42  | 0.316 | 471   | 0.55  |
| 0.36  |  | 0.736 | 0.882 | 2438  | 0.146 |
| 0.474 |  | 0.012 | 0.613 | 1261  | 0.07  |
| 0.53  |  | 0.108 | 0.541 | 703   | 0.308 |
| 0.75  |  | 0.3   | 0.369 | 861   | 0.598 |
| 0.73  |  | 0.34  | 0.341 | 941   | 0.63  |
| 0.784 |  | 0.352 | 0.368 | 1413  | 0.236 |
| 0.856 |  | 0.368 | 0.273 | 1603  | 0.254 |
| 0.046 |  | 0.016 | 0.645 | 12161 | 0.338 |
| 0.494 |  | 0.158 | 0.627 | 1964  | 0.172 |
| 0.58  |  | 0.118 | 0.472 | 986   | 0.34  |
| 0.62  |  | 0.118 | 0.472 | 755   | 0.34  |
| 0.154 |  | 0.102 | 0.267 | 1862  | 0.262 |
| 0.548 |  | 0.038 | 0.646 | 2156  | 0.422 |
| 0.802 |  | 0.262 | 0.456 | 634   | 0.558 |
| 0.788 |  | 0.426 | 0.331 | 309   | 0.59  |
| 0.678 |  | 0.01  | 0.691 | 815   | 0.042 |
| 0.556 |  | 0.284 | 0.546 | 1235  | 0.222 |
| 0.714 |  | 0.308 | 0.504 | 347   | 0.262 |
| 0.706 |  | 0.348 | 0.478 | 1287  | 0.524 |
| 0.622 |  | 0.318 | 0.361 | 545   | 0.574 |

|        |   |       |      |       |
|--------|---|-------|------|-------|
| 0.64   | 0.386   | 0.422 | 717  | 0.522 |
| 0.912  | 0.538   | 0.336 | 468  | 0.696 |
| 0.748  | 0.344   | 0.382 | 1318 | 0.516 |
| 0.102  | 0.108   | 0.734 | 7271 | 0.336 |
| 0.65   | 0.304   | 0.448 | 875  | 0.254 |
| 0.256  | 0.202   | 0.503 | 443  | 0.438 |
| 0.19   | 0.01  | 0.691 | 889  | 0.042 |
| 0.596  | 0.17  | 0.39  | 2182 | 0.518 |
| 0.538  | 0.068   | 0.657 | 1544 | 0.418 |
|        |   |       |      |       |
|        | <b>468 Metabolites and positive &amp; negative controls</b> |       |      |       |
|        |   |       |      |       |
| FDAMDD |   |       |      |       |
| 0.202  |   |       |      |       |
| 0.26   |   |       |      |       |
| 0.522  |   |       |      |       |
| 0.536  |   |       |      |       |
| 0.248  |   |       |      |       |
| 0.19   |   |       |      |       |
| 0.16   |   |       |      |       |
| 0.248  |   |       |      |       |
| 0.494  |   |       |      |       |
| 0.28   |   |       |      |       |
| 0.21   |   |       |      |       |
| 0.2    |   |       |      |       |
| 0.102  |   |       |      |       |
| 0.146  |   |       |      |       |
| 0.424  |   |       |      |       |
| 0.676  |   |       |      |       |
| 0.074  |   |       |      |       |
| 1      |   |       |      |       |
| 0.612  |   |       |      |       |
| 0.44   |   |       |      |       |
| 0.148  |   |       |      |       |
| 0.092  |   |       |      |       |
| 0.276  |   |       |      |       |
| 0.076  |   |       |      |       |
| 0.038  |   |       |      |       |
| 0.434  |   |       |      |       |
| 0.414  |   |       |      |       |

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| 0.146 |  |  |  |  |
| 0.822 |  |  |  |  |
| 0.158 |  |  |  |  |
| 0.218 |  |  |  |  |
| 0.11  |  |  |  |  |
| 0.052 |  |  |  |  |
| 0.268 |  |  |  |  |
| 0.444 |  |  |  |  |
| 0.528 |  |  |  |  |
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| 0.414 |  |  |  |  |
| 0.328 |  |  |  |  |
| 0.276 |  |  |  |  |
| 0.21  |  |  |  |  |
| 0.156 |  |  |  |  |
| 0.464 |  |  |  |  |
| 0.478 |  |  |  |  |
| 0.138 |  |  |  |  |
| 0.192 |  |  |  |  |
| 0.582 |  |  |  |  |
| 0.134 |  |  |  |  |
| 0.576 |  |  |  |  |
| 0.246 |  |  |  |  |
| 0.102 |  |  |  |  |
| 0.254 |  |  |  |  |
| 0.282 |  |  |  |  |
| 0.22  |  |  |  |  |
| 0.47  |  |  |  |  |
| 0.344 |  |  |  |  |
| 0.478 |  |  |  |  |
| 0.324 |  |  |  |  |
| 0.036 |  |  |  |  |
| 0.636 |  |  |  |  |
| 0.5   |  |  |  |  |
| 0.61  |  |  |  |  |
| 0.728 |  |  |  |  |
| 0.752 |  |  |  |  |
| 0.708 |  |  |  |  |
| 0.708 |  |  |  |  |
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| 0.548 |  |  |  |  |
| 0.56  |  |  |  |  |
| 0.84  |  |  |  |  |
| 0.714 |  |  |  |  |
| 0.444 |  |  |  |  |
| 0.984 |  |  |  |  |
| 0.28  |  |  |  |  |
| 0.966 |  |  |  |  |
| 1     |  |  |  |  |
| 0.844 |  |  |  |  |
| 0.864 |  |  |  |  |
| 0.96  |  |  |  |  |
| 0.978 |  |  |  |  |
| 0.978 |  |  |  |  |
| 0.978 |  |  |  |  |
| 0.856 |  |  |  |  |
| 0.954 |  |  |  |  |
| 0.944 |  |  |  |  |
| 0.224 |  |  |  |  |
| 0.7   |  |  |  |  |
| 0.804 |  |  |  |  |
| 0.974 |  |  |  |  |
| 0.92  |  |  |  |  |
| 0.248 |  |  |  |  |
| 0.918 |  |  |  |  |
| 0.884 |  |  |  |  |
| 0.926 |  |  |  |  |
| 0.968 |  |  |  |  |
| 0.852 |  |  |  |  |
| 0.924 |  |  |  |  |
| 0.98  |  |  |  |  |
| 0.75  |  |  |  |  |
| 0.894 |  |  |  |  |
| 0.894 |  |  |  |  |
| 0.862 |  |  |  |  |
| 0.934 |  |  |  |  |
| 0.76  |  |  |  |  |
| 0.43  |  |  |  |  |
| 0.74  |  |  |  |  |
| 0.846 |  |  |  |  |
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| 0.736 |  |  |  |
| 0.742 |  |  |  |
| 0.826 |  |  |  |
| 0.928 |  |  |  |
| 0.906 |  |  |  |
| 0.902 |  |  |  |
| 0.334 |  |  |  |
| 0.602 |  |  |  |
| 0.89  |  |  |  |
| 0.912 |  |  |  |
| 0.768 |  |  |  |
| 0.902 |  |  |  |
| 0.73  |  |  |  |
| 0.738 |  |  |  |
| 0.928 |  |  |  |
| 0.944 |  |  |  |
| 0.824 |  |  |  |
| 0.87  |  |  |  |
| 0.66  |  |  |  |
| 0.688 |  |  |  |
| 0.272 |  |  |  |
| 0.78  |  |  |  |
| 0.884 |  |  |  |
| 0.718 |  |  |  |
| 0.842 |  |  |  |
| 0.48  |  |  |  |
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| 0.932 |  |  |  |
| 0.71  |  |  |  |
| 0.962 |  |  |  |
| 0.704 |  |  |  |
| 0.952 |  |  |  |
| 0.366 |  |  |  |
| 0.486 |  |  |  |
| 0.478 |  |  |  |
| 0.542 |  |  |  |
| 0.554 |  |  |  |
| 0.624 |  |  |  |
| 0.338 |  |  |  |
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| 0.832 |  |  |  |  |
| 0.84  |  |  |  |  |
| 0.746 |  |  |  |  |
| 0.752 |  |  |  |  |
| 0.818 |  |  |  |  |
| 0.276 |  |  |  |  |
| 0.332 |  |  |  |  |
| 0.642 |  |  |  |  |
| 0.542 |  |  |  |  |
| 0.712 |  |  |  |  |
| 0.56  |  |  |  |  |
| 0.536 |  |  |  |  |
| 0.424 |  |  |  |  |
| 0.562 |  |  |  |  |
| 0.55  |  |  |  |  |
| 0.55  |  |  |  |  |
| 0.474 |  |  |  |  |
| 0.506 |  |  |  |  |
| 0.434 |  |  |  |  |
| 0.608 |  |  |  |  |
| 0.422 |  |  |  |  |
| 0.46  |  |  |  |  |
| 0.406 |  |  |  |  |
| 0.514 |  |  |  |  |
| 0.362 |  |  |  |  |
| 0.532 |  |  |  |  |
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| 0.502 |  |  |  |  |
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| 0.338 |  |  |  |  |
| 0.298 |  |  |  |  |
| 0.372 |  |  |  |  |
| 0.442 |  |  |  |  |
| 0.236 |  |  |  |  |
| 0.248 |  |  |  |  |
| 0.404 |  |  |  |  |
| 0.486 |  |  |  |  |
| 0.2   |  |  |  |  |
| 0.314 |  |  |  |  |
| 0.408 |  |  |  |  |
| 0.314 |  |  |  |  |

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| 0.942 |  |  |  |
| 0.966 |  |  |  |
| 0.998 |  |  |  |
| 0.994 |  |  |  |
| 0.542 |  |  |  |
| 0.642 |  |  |  |
| 0.924 |  |  |  |
| 0.916 |  |  |  |
| 0.416 |  |  |  |
| 0.482 |  |  |  |
| 0.458 |  |  |  |
| 0.418 |  |  |  |
| 0.268 |  |  |  |
| 0.264 |  |  |  |
| 0.392 |  |  |  |
| 0.554 |  |  |  |
| 0.438 |  |  |  |
| 0.434 |  |  |  |
| 0.462 |  |  |  |
| 0.48  |  |  |  |
| 0.422 |  |  |  |
| 0.67  |  |  |  |
| 0.496 |  |  |  |
| 0.734 |  |  |  |
| 0.522 |  |  |  |
| 0.726 |  |  |  |
| 0.568 |  |  |  |
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| 0.402 |  |  |  |
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| 0.67  |  |  |  |
| 0.478 |  |  |  |
| 0.698 |  |  |  |
| 0.554 |  |  |  |
| 0.438 |  |  |  |
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| 0.478 |  |  |  |
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| 0.304 |  |  |  |
| 0.684 |  |  |  |
| 0.57  |  |  |  |
| 0.576 |  |  |  |
| 0.508 |  |  |  |
| 0.514 |  |  |  |
| 0.338 |  |  |  |
| 0.416 |  |  |  |
| 0.854 |  |  |  |
| 0.634 |  |  |  |
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| 0.356 |  |  |  |
| 0.414 |  |  |  |
| 0.3   |  |  |  |
| 0.536 |  |  |  |
| 0.404 |  |  |  |
| 0.548 |  |  |  |
| 0.288 |  |  |  |
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| 0.37  |  |  |  |
| 0.432 |  |  |  |
| 0.362 |  |  |  |
| 0.392 |  |  |  |
| 0.732 |  |  |  |
| 0.484 |  |  |  |
| 0.338 |  |  |  |
| 0.32  |  |  |  |
| 0.236 |  |  |  |
| 0.52  |  |  |  |
| 0.31  |  |  |  |
| 0.976 |  |  |  |

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| 0.794 |  |  |  |  |
| 0.32  |  |  |  |  |
| 0.308 |  |  |  |  |
| 0.378 |  |  |  |  |
| 0.506 |  |  |  |  |
| 0.4   |  |  |  |  |
| 0.48  |  |  |  |  |
| 0.568 |  |  |  |  |
| 0.476 |  |  |  |  |
| 0.56  |  |  |  |  |
| 0.256 |  |  |  |  |
| 0.42  |  |  |  |  |
| 0.226 |  |  |  |  |
| 0.262 |  |  |  |  |
| 0.218 |  |  |  |  |
| 0.32  |  |  |  |  |
| 0.382 |  |  |  |  |
| 0.326 |  |  |  |  |
| 0.352 |  |  |  |  |
| 0.322 |  |  |  |  |
| 0.366 |  |  |  |  |
| 0.354 |  |  |  |  |
| 0.34  |  |  |  |  |
| 0.318 |  |  |  |  |
| 0.548 |  |  |  |  |
| 0.516 |  |  |  |  |
| 0.572 |  |  |  |  |
| 0.56  |  |  |  |  |
| 0.606 |  |  |  |  |
| 0.554 |  |  |  |  |
| 0.688 |  |  |  |  |
| 0.566 |  |  |  |  |
| 0.6   |  |  |  |  |
| 0.342 |  |  |  |  |
| 0.492 |  |  |  |  |
| 0.572 |  |  |  |  |
| 0.606 |  |  |  |  |
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| 0.534 |  |  |  |  |
| 0.47  |  |  |  |  |
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| 0.462 |  |  |  |
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| 0.5   |  |  |  |
| 0.498 |  |  |  |
| 0.586 |  |  |  |
| 0.326 |  |  |  |
| 0.258 |  |  |  |
| 0.284 |  |  |  |
| 0.326 |  |  |  |
| 0.25  |  |  |  |
| 0.474 |  |  |  |
| 0.504 |  |  |  |
| 0.456 |  |  |  |
| 0.442 |  |  |  |
| 0.494 |  |  |  |
| 0.354 |  |  |  |
| 0.424 |  |  |  |
| 0.364 |  |  |  |
| 0.444 |  |  |  |
| 0.528 |  |  |  |
| 0.548 |  |  |  |
| 0.45  |  |  |  |
| 0.598 |  |  |  |
| 0.43  |  |  |  |
| 0.536 |  |  |  |
| 0.62  |  |  |  |
| 0.382 |  |  |  |
| 0.45  |  |  |  |
| 0.894 |  |  |  |
| 0.53  |  |  |  |
| 0.614 |  |  |  |
| 0.578 |  |  |  |
| 0.532 |  |  |  |
| 0.784 |  |  |  |
| 0.634 |  |  |  |
| 0.676 |  |  |  |
| 0.546 |  |  |  |
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| 0.76  |  |  |  |
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| 0.48  |  |  |  |  |
| 0.4   |  |  |  |  |
| 0.488 |  |  |  |  |
| 0.77  |  |  |  |  |
| 0.714 |  |  |  |  |
| 0.564 |  |  |  |  |
| 0.334 |  |  |  |  |
| 0.834 |  |  |  |  |
| 0.536 |  |  |  |  |
| 0.496 |  |  |  |  |
| 0.56  |  |  |  |  |
| 0.628 |  |  |  |  |
| 0.274 |  |  |  |  |
| 0.274 |  |  |  |  |
| 0.38  |  |  |  |  |
| 0.334 |  |  |  |  |
| 0.25  |  |  |  |  |
| 0.376 |  |  |  |  |
| 0.31  |  |  |  |  |
| 0.25  |  |  |  |  |
| 0.278 |  |  |  |  |
| 0.334 |  |  |  |  |
| 0.298 |  |  |  |  |
| 0.34  |  |  |  |  |
| 0.396 |  |  |  |  |
| 0.566 |  |  |  |  |
| 0.558 |  |  |  |  |
| 0.6   |  |  |  |  |
| 0.378 |  |  |  |  |
| 0.446 |  |  |  |  |
| 0.262 |  |  |  |  |
| 0.3   |  |  |  |  |
| 0.906 |  |  |  |  |
| 0.834 |  |  |  |  |
| 0.83  |  |  |  |  |
| 0.668 |  |  |  |  |
| 0.874 |  |  |  |  |
| 0.942 |  |  |  |  |
| 0.876 |  |  |  |  |
| 0.324 |  |  |  |  |
| 0.806 |  |  |  |  |

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| 0.48  |  |  |  |  |
| 0.296 |  |  |  |  |
| 0.562 |  |  |  |  |
| 0.984 |  |  |  |  |
| 0.97  |  |  |  |  |
| 0.926 |  |  |  |  |
| 0.934 |  |  |  |  |
| 0.314 |  |  |  |  |
| 0.608 |  |  |  |  |
| 0.626 |  |  |  |  |
| 0.502 |  |  |  |  |
| 0.548 |  |  |  |  |
| 0.348 |  |  |  |  |
| 0.314 |  |  |  |  |
| 0.342 |  |  |  |  |
| 0.962 |  |  |  |  |
| 0.672 |  |  |  |  |
| 0.5   |  |  |  |  |
| 0.606 |  |  |  |  |
| 0.374 |  |  |  |  |
| 0.432 |  |  |  |  |
| 0.534 |  |  |  |  |
| 0.392 |  |  |  |  |
| 0.718 |  |  |  |  |
| 0.508 |  |  |  |  |
| 0.458 |  |  |  |  |
| 0.522 |  |  |  |  |
| 0.926 |  |  |  |  |
| 0.496 |  |  |  |  |
| 0.834 |  |  |  |  |
| 0.876 |  |  |  |  |
| 0.274 |  |  |  |  |
| 0.906 |  |  |  |  |
| 0.9   |  |  |  |  |
| 0.878 |  |  |  |  |
| 0.726 |  |  |  |  |
| 0.732 |  |  |  |  |
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| 0.504 |  |  |  |
| 0.978 |  |  |  |
| 0.926 |  |  |  |
| 0.892 |  |  |  |
| 0.358 |  |  |  |
| 0.918 |  |  |  |
| 0.758 |  |  |  |
| 0.626 |  |  |  |
| 0.548 |  |  |  |
| 0.874 |  |  |  |
| 0.842 |  |  |  |
| 0.682 |  |  |  |
| 0.548 |  |  |  |
| 0.41  |  |  |  |
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| 0.73  |  |  |  |
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| 0.376 |  |  |  |
| 0.326 |  |  |  |
| 0.36  |  |  |  |
| 0.396 |  |  |  |
| 0.736 |  |  |  |
| 0.884 |  |  |  |
| 0.928 |  |  |  |
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| 0.844 |  |  |  |
| 0.822 |  |  |  |
| 0.842 |  |  |  |
| 0.976 |  |  |  |
| 0.766 |  |  |  |
| 0.84  |  |  |  |
| 0.888 |  |  |  |
| 0.664 |  |  |  |
| 0.88  |  |  |  |
| 0.902 |  |  |  |
| 0.842 |  |  |  |
| 0.304 |  |  |  |
| 0.838 |  |  |  |
| 0.692 |  |  |  |

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| 0.8   |  |  |  |  |
| 0.774 |  |  |  |  |
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| 0.552 |  |  |  |  |
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| 0.816 |  |  |  |  |
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| 0.808 |  |  |  |  |
| 0.554 |  |  |  |  |
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| 0.324 |  |  |  |  |
| 0.368 |  |  |  |  |
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| 0.372 |  |  |  |  |
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| 0.894 |  |  |  |  |
| 0.72  |  |  |  |  |
| 0.924 |  |  |  |  |
| 0.754 |  |  |  |  |
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| 0.784 |  |  |  |  |
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| 0.786 |  |  |  |  |
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| 0.284 |  |  |  |
| 0.71  |  |  |  |
| 0.864 |  |  |  |
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| 0.59  |  |  |  |
| 0.594 |  |  |  |

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|        |   |  |  |  |
|        | <b>Metabolites after MDS using CDK (165) (used for MDS using ADMET)</b> |  |  |  |
|        |   |  |  |  |
| FDAMDD |   |  |  |  |
| 0.742  |   |  |  |  |
| 0.334  |   |  |  |  |
| 0.602  |   |  |  |  |
| 0.272  |   |  |  |  |
| 0.48   |   |  |  |  |
| 0.802  |   |  |  |  |
| 0.366  |   |  |  |  |
| 0.478  |   |  |  |  |
| 0.542  |   |  |  |  |
| 0.338  |   |  |  |  |
| 0.642  |   |  |  |  |
| 0.536  |   |  |  |  |
| 0.474  |   |  |  |  |
| 0.422  |   |  |  |  |
| 0.46   |   |  |  |  |
| 0.406  |   |  |  |  |
| 0.514  |   |  |  |  |
| 0.362  |   |  |  |  |
| 0.532  |   |  |  |  |
| 0.338  |   |  |  |  |
| 0.298  |   |  |  |  |
| 0.372  |   |  |  |  |
| 0.236  |   |  |  |  |
| 0.248  |   |  |  |  |
| 0.404  |   |  |  |  |
| 0.486  |   |  |  |  |
| 0.2    |   |  |  |  |
| 0.314  |   |  |  |  |
| 0.594  |   |  |  |  |
| 0.542  |   |  |  |  |
| 0.264  |   |  |  |  |
| 0.496  |   |  |  |  |

|       |  |  |  |
|-------|--|--|--|
| 0.734 |  |  |  |
| 0.726 |  |  |  |
| 0.512 |  |  |  |
| 0.588 |  |  |  |
| 0.506 |  |  |  |
| 0.57  |  |  |  |
| 0.576 |  |  |  |
| 0.264 |  |  |  |
| 0.484 |  |  |  |
| 0.32  |  |  |  |
| 0.236 |  |  |  |
| 0.506 |  |  |  |
| 0.4   |  |  |  |
| 0.48  |  |  |  |
| 0.568 |  |  |  |
| 0.476 |  |  |  |
| 0.56  |  |  |  |
| 0.256 |  |  |  |
| 0.42  |  |  |  |
| 0.226 |  |  |  |
| 0.262 |  |  |  |
| 0.218 |  |  |  |
| 0.32  |  |  |  |
| 0.326 |  |  |  |
| 0.352 |  |  |  |
| 0.322 |  |  |  |
| 0.34  |  |  |  |
| 0.318 |  |  |  |
| 0.516 |  |  |  |
| 0.554 |  |  |  |
| 0.688 |  |  |  |
| 0.566 |  |  |  |
| 0.342 |  |  |  |
| 0.572 |  |  |  |
| 0.548 |  |  |  |
| 0.534 |  |  |  |
| 0.47  |  |  |  |
| 0.456 |  |  |  |
| 0.496 |  |  |  |
| 0.462 |  |  |  |
| 0.5   |  |  |  |

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|-------|--|--|--|
| 0.498 |  |  |  |
| 0.326 |  |  |  |
| 0.258 |  |  |  |
| 0.284 |  |  |  |
| 0.326 |  |  |  |
| 0.354 |  |  |  |
| 0.364 |  |  |  |
| 0.444 |  |  |  |
| 0.598 |  |  |  |
| 0.45  |  |  |  |
| 0.53  |  |  |  |
| 0.532 |  |  |  |
| 0.854 |  |  |  |
| 0.76  |  |  |  |
| 0.432 |  |  |  |
| 0.48  |  |  |  |
| 0.4   |  |  |  |
| 0.488 |  |  |  |
| 0.714 |  |  |  |
| 0.334 |  |  |  |
| 0.536 |  |  |  |
| 0.496 |  |  |  |
| 0.56  |  |  |  |
| 0.274 |  |  |  |
| 0.274 |  |  |  |
| 0.38  |  |  |  |
| 0.334 |  |  |  |
| 0.25  |  |  |  |
| 0.376 |  |  |  |
| 0.31  |  |  |  |
| 0.25  |  |  |  |
| 0.278 |  |  |  |
| 0.334 |  |  |  |
| 0.298 |  |  |  |
| 0.34  |  |  |  |
| 0.558 |  |  |  |
| 0.834 |  |  |  |
| 0.83  |  |  |  |
| 0.668 |  |  |  |
| 0.48  |  |  |  |
| 0.562 |  |  |  |

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|-------|--|--|--|
| 0.608 |  |  |  |
| 0.626 |  |  |  |
| 0.502 |  |  |  |
| 0.348 |  |  |  |
| 0.314 |  |  |  |
| 0.342 |  |  |  |
| 0.508 |  |  |  |
| 0.496 |  |  |  |
| 0.274 |  |  |  |
| 0.878 |  |  |  |
| 0.732 |  |  |  |
| 0.52  |  |  |  |
| 0.892 |  |  |  |
| 0.358 |  |  |  |
| 0.626 |  |  |  |
| 0.548 |  |  |  |
| 0.804 |  |  |  |
| 0.73  |  |  |  |
| 0.376 |  |  |  |
| 0.326 |  |  |  |
| 0.36  |  |  |  |
| 0.396 |  |  |  |
| 0.664 |  |  |  |
| 0.692 |  |  |  |
| 0.332 |  |  |  |
| 0.462 |  |  |  |
| 0.496 |  |  |  |
| 0.712 |  |  |  |
| 0.552 |  |  |  |
| 0.808 |  |  |  |
| 0.554 |  |  |  |
| 0.324 |  |  |  |
| 0.326 |  |  |  |
| 0.72  |  |  |  |
| 0.35  |  |  |  |
| 0.25  |  |  |  |
| 0.294 |  |  |  |
| 0.762 |  |  |  |
| 0.378 |  |  |  |
| 0.452 |  |  |  |
| 0.426 |  |  |  |

|       |  |  |  |  |
|-------|--|--|--|--|
| 0.414 |  |  |  |  |
| 0.398 |  |  |  |  |
| 0.438 |  |  |  |  |
| 0.494 |  |  |  |  |
| 0.78  |  |  |  |  |
| 0.236 |  |  |  |  |
| 0.284 |  |  |  |  |
| 0.71  |  |  |  |  |
| 0.57  |  |  |  |  |
| 0.648 |  |  |  |  |
|       |  |  |  |  |