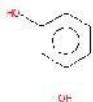


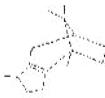
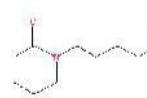
**S4 Table. Detection of Volatile Compounds in *Streptomyces thermocarboxydus* isolate BPSAC147**

| Sl. No. | RT    | Compound Name                            | MW  | Molecular structure   | Function                  | Area % | Reference           |
|---------|-------|--|-----|---|---------------------------|--------|---------------------|
| 1       | 1.764 | 1-Buten-3-yne, 2-methyl-                 | 66  |    | -                         | 4.930  | -                   |
| 2       | 1.824 | Methylene chloride                       | 84  |    | Insecticidal              | 3.023  | -                   |
| 3       | 2.004 | Methylene diamine, N,N'-diacetyl-        | 130 |    | Antimicrobial             | 6.043  | Zhao et al., [1]    |
| 4       | 2.174 | 1H-Pyrazole, 3-methyl-                   | 82  |    | Antimicrobial             | 1.858  | Arslan et al., [2]  |
| 5       | 2.299 | 4-(2 Aminoethyl)benzenesulfonyl fluoride | 200 |    | Serine protease inhibitor | 1.537  | Jiang et al., [3]   |
| 6       | 2.334 | 1,5-Hexadiyne                            | 78  |  | Antibacterial             | 1.579  | Peng et al., [4]    |
| 7       | 2.344 | Benzene                                  | 78  |  | Antimicrobial             | 1.017  | Sohrabi et al., [5] |
| 8       | 3.009 | Pyridine, 1,2,3,6-tetrahydro-1,2-        | 83  |  | Antimicrobial             | 2.862  | Mohamed et al.,     |

|    |       |  | dimethyl- |   | [6]                         |       |                                   |
|----|-------|--|-----------|---|-----------------------------|-------|-----------------------------------|
| 9  | 3.079 | Pilocarpic acid                                  | 208       |    | -                           | 2.671 | -                                 |
| 10 | 3.289 | Resorcinol                                       | 110       |    | Antimicrobial               | 1.229 | Rahangdale, [7]                   |
| 11 | 3.549 | 2-n-Butylacrolein                                | 112       |    | Antimicrobial               | 1.246 | Sirdarta <i>et al.</i> , [8]      |
| 12 | 3.97  | Octane, 2-methyl-                                | 128       |    | -                           | 2.923 | -                                 |
| 13 | 4.71  | 3,5-Octadiyne                                    | 106       |    | Antimicrobial & Antioxidant | 2.498 | Oloyede <i>et al.</i> , [9]       |
| 14 | 4.995 | Oxirane, hexyl-                                  | 128       |    | Antioxidant activity        | 0.920 | Begum <i>et al.</i> , [10]        |
| 15 | 5.02  | Benzeneethanamine, N-[(4-hydroxy)hydrocinnamoyl] | 161       |  | Antimicrobial               | 0.958 | Harikrishnan <i>et al.</i> , [11] |
| 16 | 5.05  | Benzenepropanoyl bromide                         | 212       |  | -                           | 1.069 | -                                 |



|    |        |   |     |   |  |       |                                     |
|----|--------|---|-----|---|--|-------|-------------------------------------|
| 17 | 7.881  | 1-Hexanol, 2-ethyl-   | 130 | A chemical structure diagram showing a nine-carbon straight-chain alkane.   | Antimicrobial<br>and Antioxidant   | 3.282 | Zhao <i>et al.</i> , [1]            |
| 18 | 9.347  | Nonane  | 128 | A chemical structure diagram showing a benzene ring fused to a five-membered thiazole ring.                                   | Antimicrobial  | 0.996 | Morah <i>et al.</i> , [12]          |
| 19 | 12.148 | Benzothiazole   | 135 | A chemical structure diagram showing a bicyclic diterpenoid with a cyclohexenylidene group.                                   | Antimicrobial,<br>anticonvulsant,<br>Anti<br>inflammatory<br>and antiviral | 2.805 | Ali and Siddiqui,<br>[13]           |
| 20 | 15.244 | Cedrene   | 204 | A chemical structure diagram showing a bicyclic diterpenoid with a hydroxyl group.  | Antibacterial<br>and repellent   | 0.894 | Taran <i>et al.</i> , [14]          |
| 21 | 15.494 | 7-epi-trans-sesquabinene<br>hydrate   | 222 | A chemical structure diagram showing a tricyclic methanoazulene derivative with multiple methyl groups and a methylene group. | Antimicrobial  | 1.122 | Hussein <i>et al.</i> , [15]        |
| 22 | 15.644 | 1H-3a,7-Methanoazulene,<br>octahydro-3,8,8-trimethyl-6-<br>methylene-, [3R-(3a,3a,7a,8a)] - | 218 | A chemical structure diagram showing a tricyclic methanoazulene derivative with multiple methyl groups and a methylene group. | Antimicrobial  | 2.358 | Saravanakumar and<br>Gayathri, [16] |

|    |        |   |     |   |                               |        |                                  |
|----|--------|---|-----|---|-------------------------------|--------|----------------------------------|
|    |        | 4,7-Methanoazulene,   |     |    |                               |        |                                  |
| 23 | 16.094 | 1,2,3,4,5,6,7,8-octahydro-1,4,9,9-tetramethyl-, [1S-(1a,4a,7a)] - | 204 |    | -                             | 1.651  | -                                |
| 24 | 16.304 | tert-Hexadecanethiol  | 258 |    | Antimicrobial                 | 2.110  | Parasuraman <i>et al.</i> , [17] |
| 25 | 16.304 | 2-Piperidinone, N-[4-bromo-n-butyl]-                              | 233 |    | Antimicrobial and antioxidant | 2.110  | Arslan <i>et al.</i> , [2]       |
| 26 | 16.435 | Decahydro-1,1,4a,5,6-pentamethylnaphthalene                       | 208 |    | Antimicrobial                 | 3.370  | Peng <i>et al.</i> , [4]         |
| 27 | 16.78  | (E)- $\alpha$ -Famesene   | 204 |    | -                             | 2.582  | -                                |
| 28 | 16.895 | 2,6,10-Dodecatrien-1-ol, 3,7,11-trimethyl-                        | 280 |   | Antimicrobial                 | 17.959 | Liu <i>et al.</i> , [18]         |
| 29 | 18.395 | Dodecane, 5,8-diethyl-  | 226 |  | Antifungal and antibacterial  | 3.102  | Guo <i>et al.</i> , [19]         |
| 30 | 19.156 | N-Isobutylundeca-2(E)-en-8,10-dynamide                            | 231 |  | Antioxidants                  | 1.452  | Maimulyanti and Prihadi, [20]    |



|    |        |  |     |                               |       |                             |
|----|--------|--|-----|-------------------------------|-------|-----------------------------|
| 31 | 19.181 | Methoxyacetic acid, 4-tetradecyl ester | 210 | Antimicrobial                 | 0.905 | Sohrabi <i>et al.</i> , [5] |
| 32 | 20.041 | Ethanol, 2-(tetradecyloxy)-            | 258 | -                             | 1.069 | -                           |
| 33 | 20.211 | Copaene                                | 204 | Antioxidant and Antimicrobial | 2.681 | Phukan <i>et al.</i> , [21] |
| 34 | 21.467 | Pentadecane, 2,6,10,14-tetramethyl-    | 268 | Antimicrobial and antioxidant | 3.193 | Zhao <i>et al.</i> , [1]    |
| 35 | 22.577 | 4-(4'-Hydroxyphenoxy)biphenyl          | 262 | -                             | 4.650 | -                           |

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