

**Supplemental Table S4.**

Differences in metabolite content between MD and ED in Col-0 and the five IYG lines. Plants were grown in vitro until stage 1.03 and the vegetative part of the seedlings were harvested at the middle (MD) and at the end (ED) of the day.

The Table represents the percentage of difference between these two time points. graded color scale: %<100 : red, %>100 : blue

	Col-0	AVP1	GA20OX1	BRI1	JAW	GRF5
chl a	89	105	98	120	89	112
chl b	134	107	95	94	93	101
proteins	96	100	97	91	96	95
sucrose	117	124	115	122	115	141
glucose	81	95	87	88	69	80
fructose	83	86	75	86	77	82
starch	174	150	164	155	132	171
Trehalose	90	97	95	109	98	117
Raffinose	98	75	101	100	122	100
Galactinol	60	62	71	52	103	45
Inositol, myo	101	98	102	98	97	100
Maltotriose	78	95	71	104	127	106
Melezitose	94	100	57	117	126	145
Gentiobiose	91	97	98	100	107	135
Erythritol	110	107	98	104	98	120
Xylitol	101	110	98	110	96	117
T6P	214	201	185	177	168	204
ADPG	111	94	105	86	106	110
S6P	134	92	123	101	119	111
G1P	98	87	96	101	96	97
UDPG	121	103	110	109	112	111
G6P	106	84	95	82	98	99
F6P	134	84	98	92	96	99
FBP	94	68	110	92	90	91
Inositol-1-phosphate, myo	88	98	62	52	76	118
Gly3P	97	89	103	99	102	92
6-PG	114	87	137	72	90	81
PEP	101	115	96	83	100	104
PGA	129	109	101	95	111	138
pyruvate	125	95	113	110	102	125
citrate	90	72	89	65	91	84
aconitate	82	67	73	57	91	89
2-OG	149	91	138	91	127	142
succinate	138	51	124	65	125	110
malate	93	101	87	87	95	109
fumarate	108	112	99	92	97	116
glycerate	107	87	108	86	97	105
AA	93	99	95	92	85	101
Glutamine	62	143	61	86	125	114
Glutamic acid	111	103	110	103	103	101
Aspartic acid	92	80	84	89	92	105
Alanine	58	113	33	88	138	173
Asparagine	116	80	128	98	62	63

Glycine	86	101	87	70	75	79
Serine	102	105	107	95	105	97
Arginine	111	102	94	90	110	119
Proline	119	125	138	132	98	126
Methionine	73	81	69	84	73	84
Threonine	117	106	108	103	113	129
shikimate	134	95	118	90	103	118
Phenylalanine	250	217	214	221	230	271
Tryptophan	140	172	109	132	151	215
Tyrosine	146	174	125	132	131	172
Ornithine	79	86	83	55	91	65
Putrescine	91	88	92	95	81	104
Tocopherol	73	98	76	96	123	118
Butyric acid	89	106	97	98	88	97
Galactonic acid-1,4-lactone	96	100	98	104	88	111
Galactonic acid	90	91	94	97	94	103
Hexadecenoic acid	106	97	104	90	113	114
Nicotinic acid	103	78	100	102	118	114
Octadecanoic acid	105	102	107	87	108	115
Ascorbic acid	69	239	79	161	94	89
Dehydroascorbic acid dimer	95	87	102	93	91	111