

Figure S1: Relative abundance of up-regulated intra-cellular metabolites of *Bacillus amyloliquefaciens* J2V2AA in control and treated (30% SM) based on LC-MS spectrum

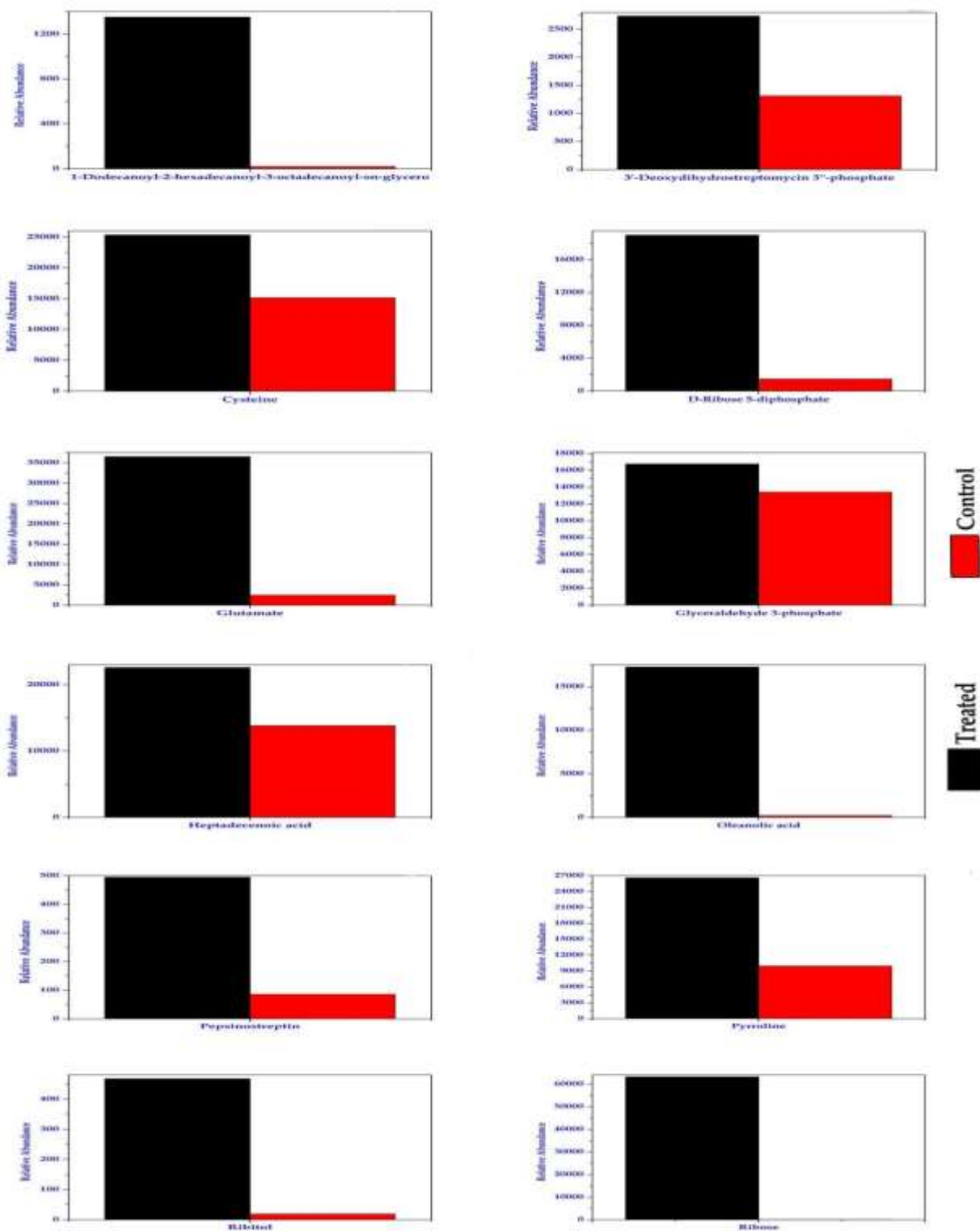


Figure S2: Relative abundance of down-regulated intra-cellular metabolites of *Bacillus amyloliquefaciens* J2V2AA in control and treated (30% SM) based on LC-MS spectrum

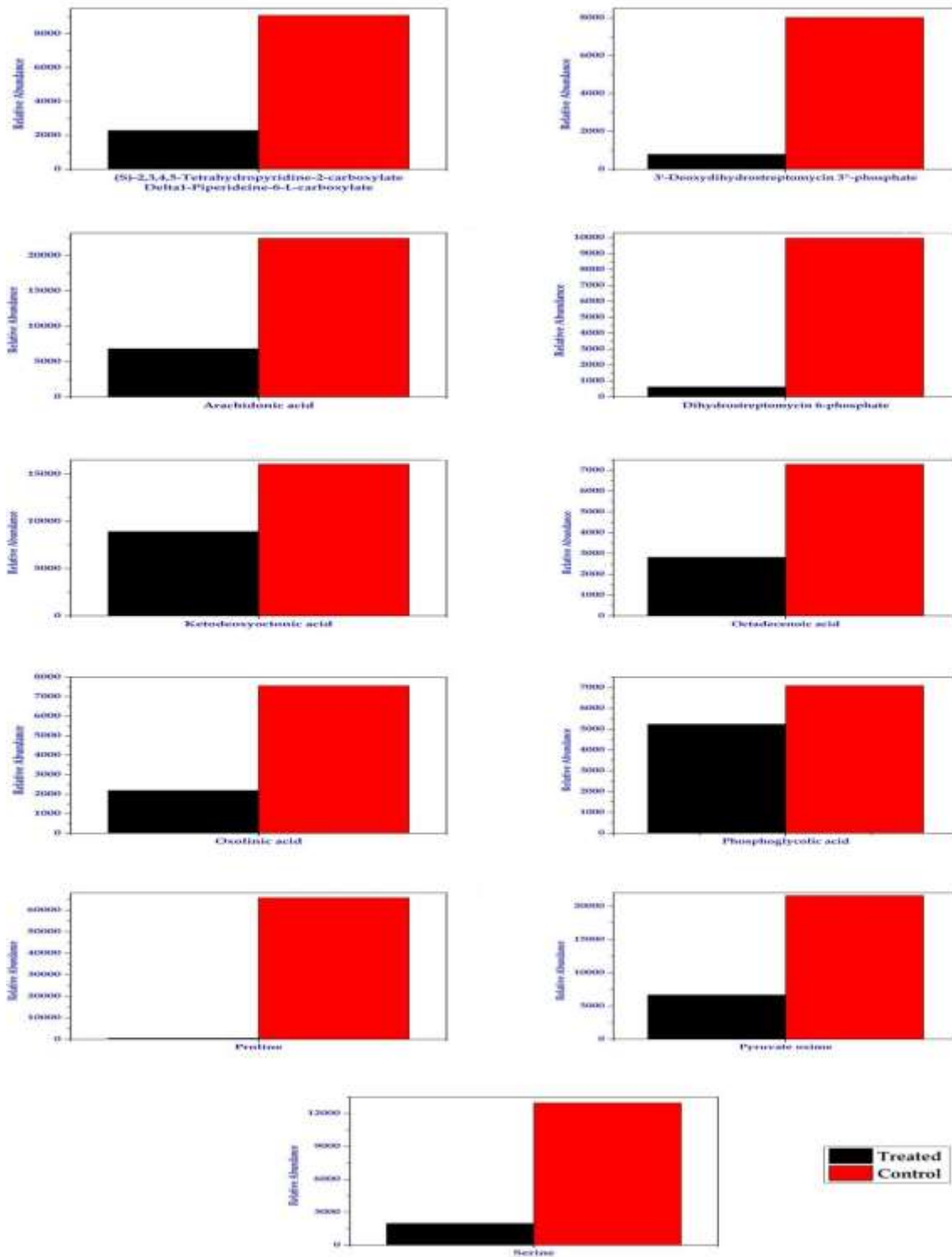


Figure S3: GC-MS chromatogram of intra-cellular metabolites of *Bacillus amyloliquefaciens* J2V2AA in control and treated (30% SM)

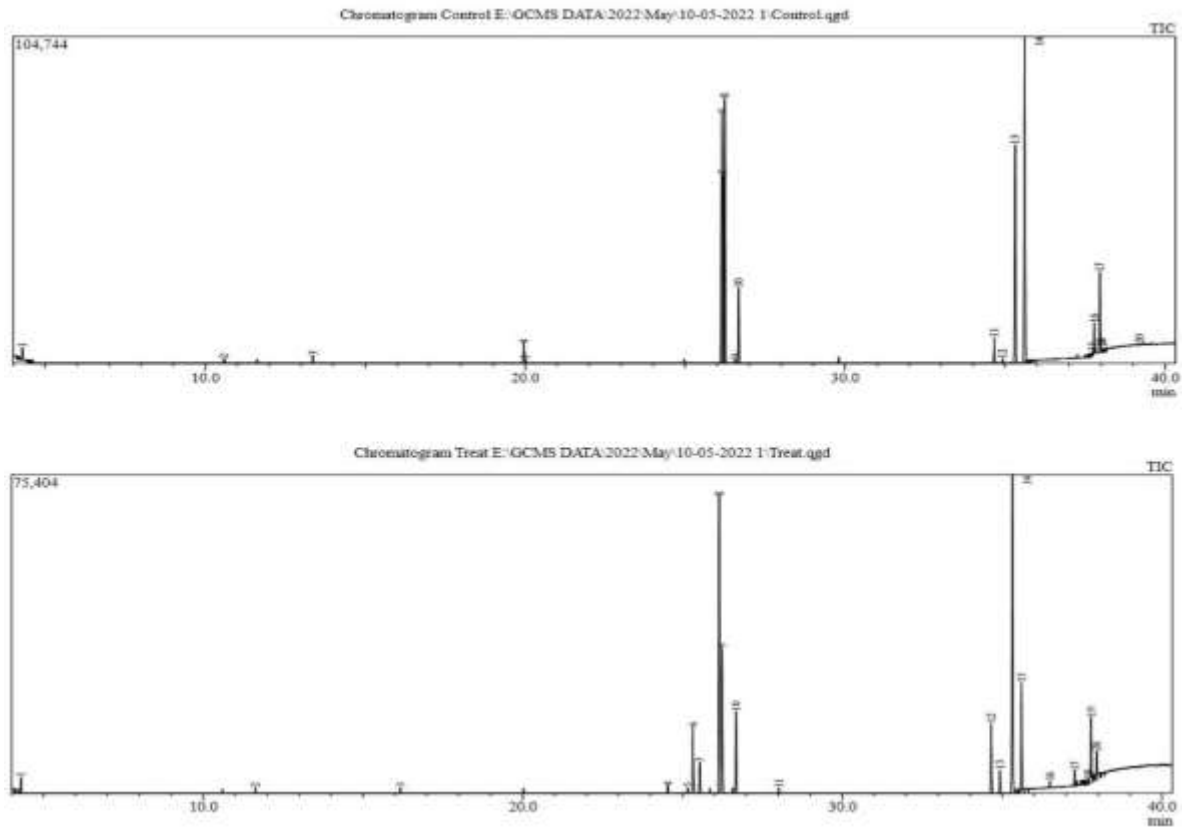


Figure S4: LC-MS chromatogram of intra-cellular metabolites of *Bacillus amyloliquefaciens* J2V2AA in control and treated (30% SM)

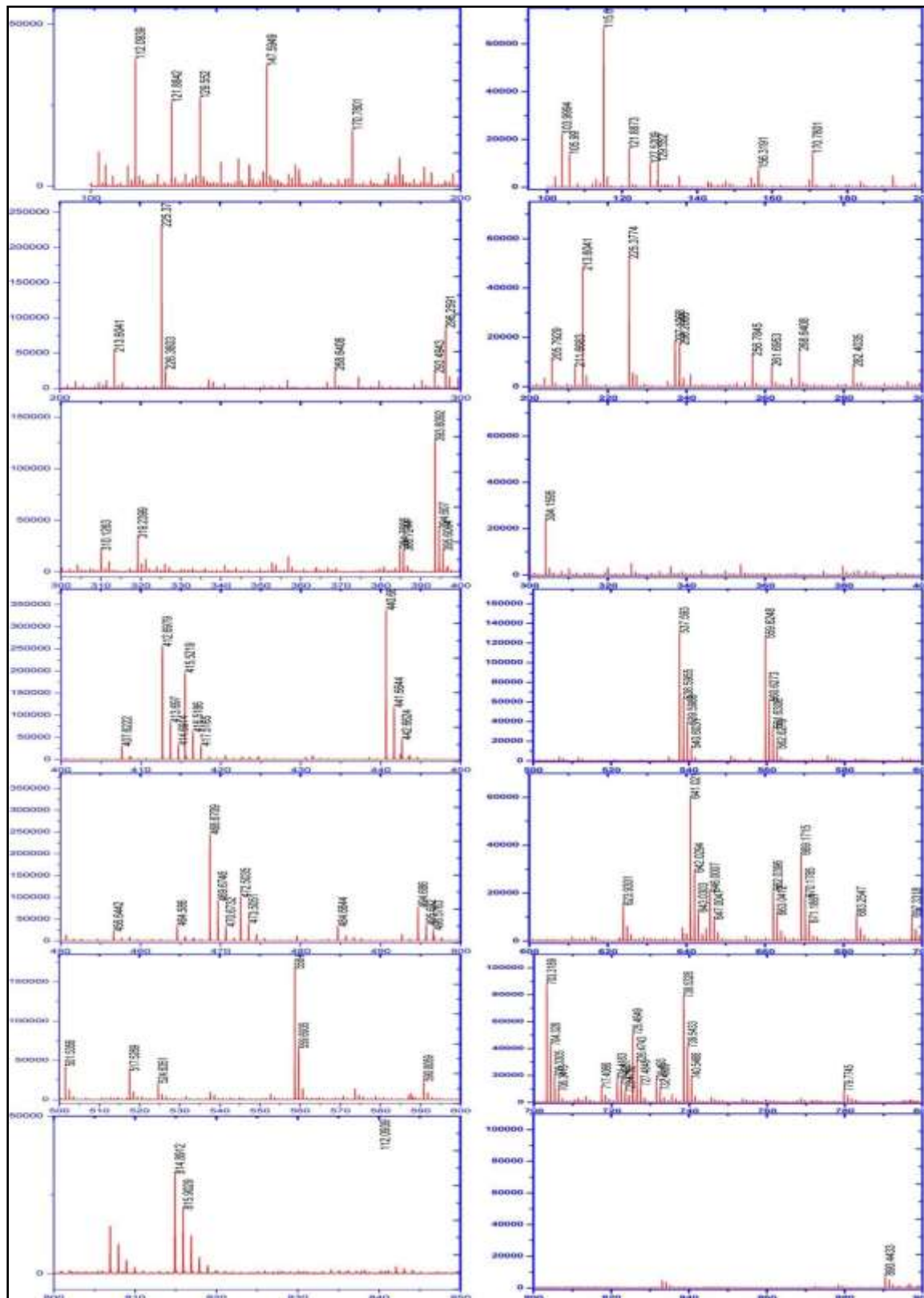


Figure S5: FTIR spectrum of lactic acid produced by *Bacillus amyloliquefaciens* J2V2AA

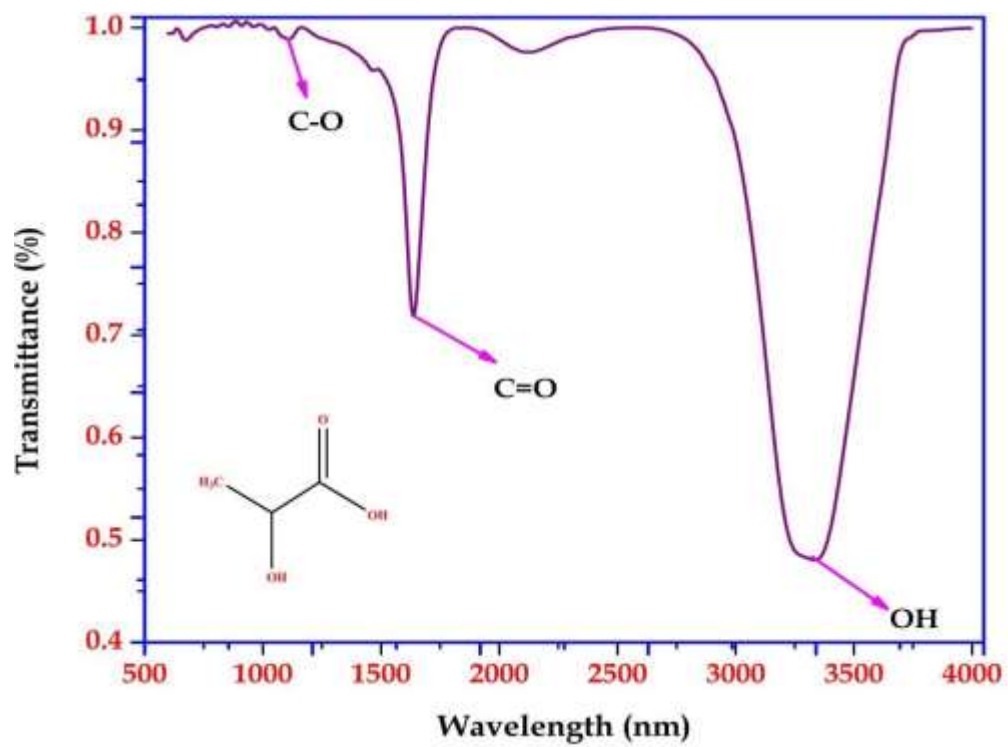


Figure S6: UV-visible spectrum of lactic acid produced by *Bacillus amyloliquefaciens* J2V2AA

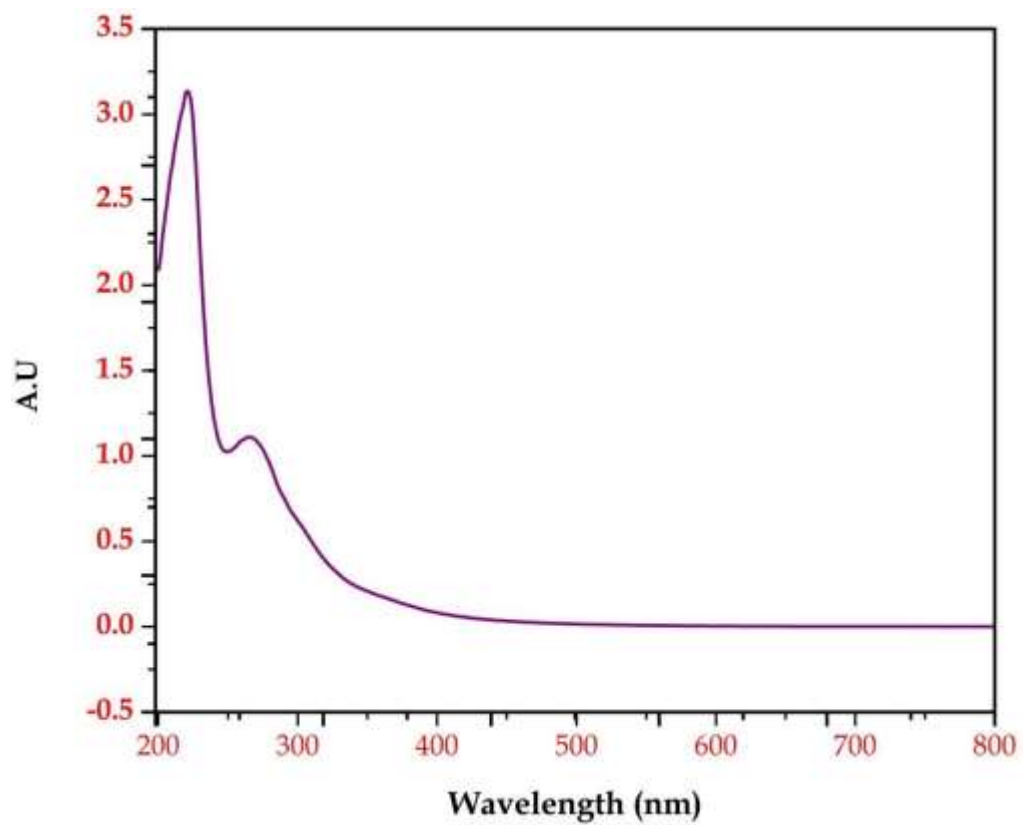


Table S1: List identified intra-cellular metabolites of second generation lactic acid production by *Bacillus amyloliquefaciens* J2V2AA identified through LC-MS spectrum

1	Ribose
2	Oleanolic acid
3	1-Dodecanoyl-2-hexadecanoyl-3-octadecanoyl-sn-glycero
4	Ribitol
5	Glutamate
6	D-Ribose 5-diphosphate
7	Pepsinostreptin
8	Pyrroline
9	Isopentenyl pyrophosphate
10	Cysteine
11	Heptadecenoic acid
12	Glyceraldehyde 3-phosphate
13	Phosphoglycolic acid
14	Ketodeoxyoctonic acid
15	Octadecenoic acid
16	Pyruvate oxime
17	Arachidonic acid
18	Oxolinic acid
19	(S)-2,3,4,5-Tetrahydropyridine-2-carboxylate Delta 1-Piperidine-6-L-carboxylate
20	Serine
21	3'-Deoxydihydrostreptomycin 3"-phosphate
22	Dihydrostreptomycin 6-phosphate
23	Proline

Table S2: List identified intra-cellular metabolites of second generation lactic acid production by *Bacillus amyloliquefaciens* J2V2AA identified through GC-MS spectrum

2	2,3-(METHYLENEDIOXY)-6-((TRIMETHYLSILYL)METHYL)BENZYL IODIDE
3	BENZAMIDE, N-[9-[3-[(BENZOYLOXY)METHYL]-4-(FORMYLOXY)-2-NITRO-5-(PHENYLMETHOXY)CYCLOPENTYL]-9H-PURIN-6-YL]-, [1R-(1.ALPHA.,2.BE
4	2,2-Dimethyl-propyl 2,2-dimethyl-propanesulfinyl sulfone
5	(1S,2S)-CIS-2-PHENYLCYCLOPENTANOL (R)-O-ACETYLMANDELATE ESTER
6	Furo[2,3-c]pyridine, 2,3-dihydro-2,7-dimethyl-
7	3,8-DIOXA-2,9-DISILADECANE, 2,2,9,9-TETRAMETHYL-5,6-BIS[(TRIMETHYLSILYL)OXY]-, (R*,S*)-
8	D-Allose, oxime (isomer 1), 6TMS derivative
9	3,8-DIOXA-2,9-DISILADECANE, 2,2,9,9-TETRAMETHYL-5,6-BIS[(TRIMETHYLSILYL)OXY]-, (R*,S*)-
10	Furo[2,3-c]pyridine, 2,3-dihydro-2,7-dimethyl-
11	HEXADECANOIC ACID
12	OCTADECANOIC ACID, 2-HYDROXY-1-(HYDROXYMETHYL)ETHYL ESTER
13	Furo[2,3-c]pyridine, 2,3-dihydro-2,7-dimethyl-
14	HEXADECANOIC ACID, 2,3-BIS[(TRIMETHYLSILYL)OXY]PROPYL ESTER
15	1-Monopalmitin, 2TMS derivative
16	3,4-DIHYDRO-4-(1,3-DIOXOLAN-2-YL)-5,7-DIMETHOXY-1(2H)-BENZOPYRAN-2-ONE
17	4-HYDROXY-5-METHYL-3-HEXANONE
18	Glycerol monostearate, 2TMS derivative
19	4-(Benzoylmethyl)-6-methyl-2H-1,4-benzoxazin-3-one
20	(+)-1-(ACETOXY)-2-(1-BROMOETHYL)-3-METHOXYANTHRAQUINONE
21	2,3-BIS(TRIMETHYLSILOXY)-2,3-BIS(4'-METHYLPHENYL)BUTANE
22	2-KETO-BUTYRIC-ACID
23	2-KETO-BUTYRIC-ACID
24	(SS)- or (RR)-2,3-hexanediol
25	(SS)- or (RR)-2,3-hexanediol
26	4-THIAZOLIDINECARBOXYLIC ACID, 3-(TRIMETHYLSILYL)-, TRIMETHYLSILYL ESTER

27	SILANE, (PHENYLOXIRANYLIDENE)BIS[TRIMETHYL-
28	(SS)- or (RR)-2,3-hexanediol
29	OCTADECANOIC ACID, 2-HYDROXY-1-(HYDROXYMETHYL)ETHYL ESTER
30	1,2-BENZENEDICARBOXYLIC ACID, DICYCLOHEXYL ESTER
31	1-Monopalmitin, 2TMS derivative
32	2'-O-[(METHOXYCARBONYL)METHYL]-5-METHYLURIDINE
33	3-BUTEN-2-OL, FORMATE
34	2-((TRIMETHYLSILYL)ETHYNYL)HEPTAMETHYLTRISILANE
35	2,2,4,4-TETRAMETHYL-3-PENTYL TRANS-DECAHYDRO-6.BETA.-[TERT-BUTYLDIMETHYLSILYL)OXY]-5,5,8A.BETA.-TRIMETHYL-2-METHYLENE-1.XI.-NAP
36	BUTYL (PYRIDINE-2,6-DIPHENYL)PHENYLPHOSPHINATE

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