

**Table S1** UHPLC-HR-ESI-MS/MS data of potato constituents detected in sourdough bread + purple potatoes (SB+P) and baker's yeast bread + purple potatoes (YB+P).

Peak*	Compound	$t_R$ (min)	HR-[M-H] <sup>-</sup> ( $m/z$ )	HR-[M+H] <sup>+</sup> ( $m/z$ )	Negative Product Ions ( $m/z$ )**	Positive Product Ions ( $m/z$ )**	Error (ppm)
1	Saccharose	0.5	377.0857 ([M+HCOO] <sup>-</sup> )	381.0786 ([M+K] <sup>+</sup> )	341.10, 179.05	219.03	-1.84
2	Citric acid isomer I	0.6	191.0192		173.01, 129.02, <b>111.01</b> , 87.01, 85.03		-2.61
3	Citric acid isomer II	0.7	191.0192		173.01, 129.02, <b>111.01</b> , 87.01, 85.03		-2.61
4	Caffeoylquinic acid isomer I	2.9	353.0877		<b>191.05</b> , 179.03, 135.04		-0.28
5	Caffeoylquinic acid isomer II	3.0	353.0877		<b>191.05</b> , 179.03, 135.04		-2.23
6	Caffeic acid	4.5	179.0345		135.0444		
7	Caffeoylquinic acid isomer III	4.7	353.0877	355.1018	<b>191.05</b> , 179.03, 173.045, 135.04	<b>163.04</b> , 135.04, 89.04	-0.28
8	Leucine/isoleucine	0.6		132.1019		<b>86.09</b> , 69.07	0
9	Tyrosine	0.7		182.0811		<b>165.05</b> , 136.07, 123.04, 91.05	-3.29
10	Phenylalanine	1.7		166.0861		<b>120.08</b> , 103.05, 91.05	-0.60
11	Tryptophan	2.9		205.0970		<b>188.07</b> , 146.06, 118.07, 91.05	-0.49
12	$\alpha$ -Chaconine	15.3		852.5081		706.45, 544.37, 398.33	-2.58
13	$\alpha$ -Solanine	15.3		868.5036		722.44, 398.34	-1.96

\*Peak numbers correspond with those in Figure 2. \*\* The base ion peaks generated in the ESI-MS/MS experiments are shown in bold.