Tab. S.3: Vietnam Robusta grade 2: drum or tangential roasting series with extreme profiles; T1: first partial roast, T2: final roast

RG	RF SKT	RP	RZ [sec]	ERT [°C]	RV/ORV [%]	AA [µg/kg]	Furan [µg/kg]	2-MF [µg/kg]	3-MF [µg/kg]	2,5-DMF [µg/kg]	ΣF [µg/kg]	HMF [mg/kg]	FFA [mg/kg]	HMFA [mg/kg]	FA
Sudden temperature rise															
light	130	P1	603	206,9	14,6/3,9	352	4280	12320	510	800	17910	55	681	74	58
light	131	P1	1200	196,6	14,2/3,5	290	3680	12480	410	770	17340	22	520	46	61
light	133	P3	1209	201,8	13,1/2,4	346	3970	13040	480	860	18350	37	664	66	65
dark	79	P1	603	218,9	18,2/7,5	225	5500	21980	700	1290	29470	16	796	47	109
dark	80	P1	1203	212,4	16,0/5,3	292	5330	22180	690	1270	29470	25	800	38	98
RV/ORV could not be determined as a certain amounts of coffee had to be withdrawn															
			T1 [sec] **T2 [sec]**	**T1 [°C]** **T2 [°C]**		**T1** **T2**									
light	133	P3	414 594	150,0 203,5	-	794 310	3687	9392	331	557	13966	58	741	70	57
light	129	P3	471 1195	149,9 203,5	-	785 279	3496	10052	322	542	14413	38	691	52	51
dark	80	P2	192 557	149,5 214,9	-	445 190	7793	47241	1155	3183	59372	23	781	24	88
dark	81	P2	223 1170	149,9 201,7	- 	714 129	8645	50501	1120	2787	63053	19	427	23	84

Tab. S.4: Vietnam Robusta grade 2: hot air roasting series with extreme profiles; T1: first partial roast, T2: final roast

Degree of roast	Colour SKT	Profile	time [sec]	Temp [°C]	RV/ORV [%]	AA [µg/kg]	Furan [µg/kg]	2-MF [µg/kg]	3-MF [µg/kg]	2,5-DMF [µg/kg]	ΣF [µg/kg]	HMF [mg/kg]	FFA [mg/kg]	HMFA [mg/kg]	FA [mg/kg]
Sudden temperature rise															
H/ P1	104	200 474	630	219	20,0/9,3	334	2370	4940	240	240	7790	71	744	98	60
H/ P1	96	200 830	1150	218	13,8/3,1	291	2680	7040	290	330	10340	58	701	88	69
H/ P3	105	180 190	325	229	-	370	2660	5030	250	270	8210	40	697	71	53
H/ P3	102	205 458	608	222	-	314	1970	4600	220	220	7010	30	673	54	64
M/ P1	75	205 450	630	228	17,5/6,8	264	3540	10860	440	580	15420	33	918	60	75
M/ P1	71	200 820	1270	220	16,3/5,6	225	4800	19000	680	980	25460	18	672	31	71
D/ P1	45	200 813	1181	234	17,5/6,8	167	5870	28440	740	1160	36210	24	1108	40	125
D/ P3	46	220 440	567	237	13,8/3,1	253	8590	40890	1460	2430	53370	22	1010	40	101
D/ P3	42	190 177	318	252	-	244	4140	14540	530	550	19760	15	820	25	89
D/ P3	43	200 735	920	245	-	214	5070	20380	640	830	26920	14	736	25	97

Tab. S.4 (cont.): Vietnam Robusta grade 2: hot air roasting series with extreme profiles; T1: first partial roast, T2: final roast

Degree of roast	Colour SKT	Profile	time [sec]	Temp [°C]	RV/ORV [%]	AA [µg/kg]	Furan [µg/kg]	2-MF [µg/kg]	3-MF [µg/kg]	2,5-DMF [µg/kg]	ΣF [µg/kg]	HMF [mg/kg]	FFA [mg/kg]	HMFA [mg/kg]	FA [mg/kg]
Double roasts			**T1 [sec]** **T2 [sec]**	**T1 [°C]** **T2 [°C]**											
light/P2	106	-	78 838	150 227	14,0/ 3,3	306	2920	7850	316	457	11543	42	722	64	59
light/P1	101	-	120 507	150 226	14,8/ 4,1	317	3480	8530	406	472	12888	45	772	71	69
light/P1	98	-	173 1032	150 221	14,8/ 4,1	253	2930	8640	335	487	12392	55	690	31	62
medium/ P1	72	-	114 490	150 236	16,3/ 5,6	270	4050	13000	496	704	18250	44	973	30	79
medium/ P1	69	-	190 986	150 235	16,8/ 6,1	258	4550	19430	679	1310	25969	21	907	34	78
dark/P3	52	-	169 462	150 252	16,3/ 5,6	344	4730	15660	653	1030	22073	36	1211	53	99
dark/P1	43	-	191 980	150 240	16,3/ 7,3	181	5299	20745	635	947	27626	16	820	28	89