Food Product	Side Stream	Description	Compound Group	Compound	Level	Unit	Reference
Rice	Rice husk	Before soaking pre-treatment	Inorganics	Potassium oxide (K2O)	4.39	% ash	A detailed study of the effects of pyrolysis temperature and feedstock particle size on the preparation of nanosilica from rice husk
Rice	Rice husk, dried	Soaked rice husks, dried	Inorganics	Potassium oxide (K2O)	0.76	% ash	A detailed study of the effects of pyrolysis temperature and feedstock particle size on the preparation of nanosilica from rice husk
Rice	Rice husk		Inorganics	Potassium oxide (K2O)	5.4	% ash	Combustion behaviour of rice husk in a bubbling fluidised bed

Grape	Char from grape residue	Residue from wine production, pyrolysis in packed bed (280-530°C deg C radial profile)	Inorganics	Potassium oxide (K2O)	5.1	% ash	ECN Phyllis 2
Olive	Char from olive husks	Pyrolysis in packed bed (280-530°C radial profile)	Inorganics	Potassium oxide (K2O)	15.1	% ash	ECN Phyllis 2
Wheat	Char from wheat straw	Pyrolysis in packed bed (280-530°C radial profile)	Inorganics	Potassium oxide (K2O)	14.1	% ash	ECN Phyllis 2
Sugar cane	Sugar cane trash	Tops and leaves	Inorganics	Potassium oxide (K2O)	13.39	% ash	ECN Phyllis 2
Sugar beet	Sugar beet		Inorganics	Potassium oxide (K2O)	8.4	% ash	ECN Phyllis 2
Aubergine	Aubergine plant		Inorganics	Potassium oxide (K2O)	19.61	% ash	ECN Phyllis 2
Cabbage	Abyssinian cabbage	Ash type: 550°C. Fluid ash fusion temperature above 1400°C	Inorganics	Potassium oxide (K2O)	16	% ash	ECN Phyllis 2
Courgette	Courgette plant		Inorganics	Potassium oxide (K2O)	6.37	% ash	ECN Phyllis 2

Cucumber	Cucumber plant		Inorganics	Potassium oxide (K2O)	7.49	% ash	ECN Phyllis 2
Melon	Melon plant	C,H and N determined according to UNE-CEN/TS 15104:2008 EX. S according to ASTM D4239-08, Cl according to ASTM E776-87	Inorganics	Potassium oxide (K2O)	18.21	% ash	ECN Phyllis 2
Pepper	Pepper plant	C,H and N determined according to UNE-CEN/TS 15104:2008 EX. S according to ASTM D4239-08, Cl according to ASTM E776-87	Inorganics	Potassium oxide (K2O)	19.9	% ash	ECN Phyllis 2

Tomatoes	Tomato plant	C,H and N determined according to UNE-CEN/TS 15104:2008 EX. S according to ASTM D4239-08, Cl according to ASTM E776-87. Erroneous data for ash metal content corrected after consultation with authors.	Inorganics	Potassium oxide (K2O)	12.97	% ash	ECN Phyllis 2

Melon	Watermelon plant	C,H and N determined according to UNE-CEN/TS 15104:2008 EX. S according to ASTM D4239-08, Cl according to ASTM E776-87. Erroneous data for ash metal content corrected after consultation with authors.	Inorganics	Potassium oxide (K2O)	13.4	% ash	ECN Phyllis 2
Nuts, unspecified	Nut hulls	Almond	Inorganics	Potassium oxide (K2O)	36.71	% ash	ECN Phyllis 2
Nuts, unspecified	Nut shells	Almond	Inorganics	Potassium oxide (K2O)	23.37	% ash	ECN Phyllis 2
Nuts, unspecified	Nut shells	Almond. Extractive matter (alcohol/benzene 1/1) 2.7%; cellulose etc. extractive-free	Inorganics	Potassium oxide (K2O)	48.7	% ash	ECN Phyllis 2

Nuts, unspecified	Nut shells	Almond. Fluid ash fusion temperature above 1400°C	Inorganics	Potassium oxide (K2O)	31	% ash	ECN Phyllis 2
Nuts, unspecified	Nut hulls	Almond, shells (hulls)	Inorganics	Potassium oxide (K2O)	49.6	% ash	ECN Phyllis 2
Nuts, unspecified	Nut hulls	Almond, shells (hulls). Ash type: 600 Degree Celcius	Inorganics	Potassium oxide (K2O)	52.9	% ash	ECN Phyllis 2
Nuts, unspecified	Nut hulls	Almond, shells (hulls)	Inorganics	Potassium oxide (K2O)	48.6	% ash	ECN Phyllis 2
Nuts, unspecified	Nut hulls	Almond, shells (hulls). Ash fusion temperatures according to ASTM D-1857	Inorganics	Potassium oxide (K2O)	14.7	% ash	ECN Phyllis 2
Nuts, unspecified	Nut hulls	Almond, shells (hulls)	Inorganics	Potassium oxide (K2O)	50.9	% ash	ECN Phyllis 2
Nuts, unspecified	Nut hulls	Almond, shells (hulls). Ash type: 600 Degree Celcius	Inorganics	Potassium oxide (K2O)	48.7	% ash	ECN Phyllis 2

Nuts, unspecified	Nut hulls	Almond, shells (hulls). Ash type: grinding, 60 mesh, 14 hours at 575 degC. Ash fusion temperatures according to ASTM D-1857	Inorganics	Potassium oxide (K2O)	14.14	% ash	ECN Phyllis 2
Nuts, unspecified	Nut hulls	Almond, shells (hulls)	Inorganics	Potassium oxide (K2O)	30.93	% ash	ECN Phyllis 2
Cacao/cocoa	Cacao	Ash type: 815 degC	Inorganics	Potassium oxide (K2O)	33.1	% ash	ECN Phyllis 2
Coconut	Coconut shell		Inorganics	Potassium oxide (K2O)	8.8	% ash	ECN Phyllis 2
Nuts, unspecified	Nut shells	Hazelnut. Extractive matter (alcohol/benzene 1/1) 3.3%; cellulose etc. extractive-free	Inorganics	Potassium oxide (K2O)	30.4	% ash	ECN Phyllis 2

Nuts, unspecified	Nut shells	Hazelnut. Proximate analyses and calorific value according to ASTM standards. Extractives according to ASTM D 1105, lignin Van Soest, alpha cellulose (22.9%) TAPPI T203 om-88. Holocellulose 38.6%. Ash type: 600°C according to ASTM E 1755. Ash melting according to DIN 51730. Ash contains 1.59% ZnO and 0.29% SnO.	Inorganics	Potassium oxide (K2O)	40.34	% ash	ECN Phyllis 2
Olive	Olive		Inorganics	Potassium oxide (K2O)	5.2	% ash	ECN Phyllis 2

Olive	Olive		Inorganics	Potassium oxide (K2O)	1.46	% ash	ECN Phyllis 2
Olive	Olive	Ash type: grinding, 60 mesh, 14 hours at 575 degC. Ash fusion temperatures according to ASTM D-1857	Inorganics	Potassium oxide (K2O)	3.13	% ash	ECN Phyllis 2
Olive	Olive cake		Inorganics	Potassium oxide (K2O)	2	% ash	ECN Phyllis 2
Olive	Olive husk	Extractive matter (alcohol/benzen 1/1) 9.4%; cellulose etc. extractive-free	Inorganics	Potassium oxide (K2O)	4.3	% ash	ECN Phyllis 2
Olive	Olive pits	Ash type: ASTM D1102; 600C ASTM D 1102, 600 Degree Celcius	Inorganics	Potassium oxide (K2O)	4.4	% ash	ECN Phyllis 2

Olive	Olive residue	Orujillo, produced and collected in Andalusia, Spain, sample 1	Inorganics	Potassium oxide (K2O)	20.06	% ash	ECN Phyllis 2
Olive	Olive residue	Orujillo, produced and collected in Andalusia, Spain, sample 2	Inorganics	Potassium oxide (K2O)	24.73	% ash	ECN Phyllis 2
Olive	Olive flesh	Ash type: 550 degC. Same data in: Energy & Fuels 19 (2005) 825-832	Inorganics	Potassium oxide (K2O)	18.2	% ash	ECN Phyllis 2
Olive	Olive kernels	Fraction > 1mm. Cl calculated from ash (assuming Cl in biomass/Cl in ash = 3, like ID 1764); ash sintering starts at 750°C, fully fused at 900°C	Inorganics	Potassium oxide (K2O)	41.82	% ash	ECN Phyllis 2

Olive	Olive kernels	Fraction > 1mm, leached. Ash does not sinter between 750°C and 900°C	Inorganics	Potassium oxide (K2O)	5.89	% ash	ECN Phyllis 2
Olive	Olive residue	Cakes from olive oil production. Ash type: 550degC. Cl and O-content from S.Arvelakis et.al. Proc. 5th Eur. Conf. on Industrial Furnaces and Boilers, Vol.2,p.163-172. See also ID 1968, 1969 and 1970. Slightly different ash composition reported in Biomass and Bioenergy 22 (2002) 55-69.	Inorganics	Potassium oxide (K2O)	15.1	% ash	ECN Phyllis 2

Olive	Olive residue	Leached. Ash composition from Arvelakis et al., Biomass and Bioenergy 22 (2002) 55-69.	Inorganics	Potassium oxide (K2O)	4.9	% ash	ECN Phyllis 2
Olive	Orujillo	Wood matter from pressed oil stone	Inorganics	Potassium oxide (K2O)	36.6	% ash	ECN Phyllis 2
Coffee	Coffee husk		Inorganics	Potassium oxide (K2O)	38.1	% ash	ECN Phyllis 2
Nuts, unspecified	Nut shells	Pistachio	Inorganics	Potassium oxide (K2O)	13.98	% ash	ECN Phyllis 2
Nuts, unspecified	Nut shells	Pistachio. California residues collected from producers for MFC trials	Inorganics	Potassium oxide (K2O)	18.2	% ash	ECN Phyllis 2
Prunes	Prune pits		Inorganics	Potassium oxide (K2O)	37.5	% ash	ECN Phyllis 2
Coffee	Coffee husk	Parchment	Inorganics	Potassium oxide (K2O)	36.9	% ash	ECN Phyllis 2
Cotton	Cottonseed husks	Israel	Inorganics	Potassium oxide (K2O)	42	% ash	ECN Phyllis 2
Mustard	Mustard husk		Inorganics	Potassium oxide (K2O)	7.4	% ash	ECN Phyllis 2

Rice	Rice husk	Ash	Inorganics	Potassium oxide (K2O)	1.952	%	A study on the consecutive preparation of silica powders and active carbon the rice husk ash
Rice	Rice husk	Silica powder	Inorganics	Potassium oxide (K2O)	0.0038	%	A study on the consecutive preparation of silica powders and active carbon the rice husk ash
Rice	Rice husk	Combustion ashes. Ash from the bottom of the combustor	Inorganics	Potassium oxide (K2O)	0.35	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the cyclones	Inorganics	Potassium oxide (K2O)	2.8	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the bottom of the combustor	Inorganics	Potassium oxide (K2O)	0.69	%	Combustion behaviour of rice husk in a bubbling fluidised bed

Rice	Rice husk	Combustion ashes. Ash from the cyclones	Inorganics	Potassium oxide (K2O)	2.5	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the baghouse	Inorganics	Potassium oxide (K2O)	2.3	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the bottom of the combustor	Inorganics	Potassium oxide (K2O)	0.2	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the cyclones	Inorganics	Potassium oxide (K2O)	2.1	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the bottom of the combustor	Inorganics	Potassium oxide (K2O)	0.61	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the cyclones	Inorganics	Potassium oxide (K2O)	2.4	%	Combustion behaviour of rice husk in a bubbling fluidised bed

Rice	Rice husk	Combustion ashes. Ash from the baghouse	Inorganics	Potassium oxide (K2O)	2.1	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the bottom of the combustor	Inorganics	Potassium oxide (K2O)	1.1	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the baghouse	Inorganics	Potassium oxide (K2O)	2.2	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the bottom of the combustor	Inorganics	Potassium oxide (K2O)	1.3	%	Combustion behaviour of rice husk in a bubbling fluidised bed
Rice	Rice husk	Combustion ashes. Ash from the baghouse	Inorganics	Potassium oxide (K2O)	2.9	%	Combustion behaviour of rice husk in a bubbling fluidised bed

Rice	Rice husk, dried	Powder	Inorganics	Potassium oxide (K2O)	0.14	% mass fraction	Development of photoluminescent glass derived from rice husk
Rice	Rice husk		Inorganics	Potassium oxide (K2O)	5.4	wt% in ash	Combustion behaviour of rice husk in a bubbling fluidised bed
Wheat	Wheat straw		Inorganics	Potassium oxide (K2O)	6.6	wt% in ash	Combustion behaviour of rice husk in a bubbling fluidised bed