

Supplementary material: Table S1 for “2013-2014 Survey of Chars Using Raman Spectroscopy”

Name	D band position	99% confidence interval $\pm$	G band position	99% confidence interval $\pm$
Leucan metal kiln	1307.2	2.5	1596.8	1.3
Fluidyne gasifier	1306.2	2.1	1595.4	1.5
Cone kiln (TFOD)	1307.6	6.9	1595.2	3.3
Massey open source (Run 5)	1315.6	4.7	1594.4	2.4
COST I	1316.8	4.5	1593.4	2.5
Stardust Continuous	1323.8	14.1	1592.8	5.9
Rice husk char	1304.2	10.9	1592	3.8
Domestic log fire (water quenched)	1323.2	7.3	1591.6	2.5
Mixed sawdust Kiln	1315.2	7.5	1590.2	3.4
Anthracite coal	1324.2	3.8	1588.4	1.7
Yealand's Estate Batch	1317.6	10.6	1585.8	7.2
Tire pyrolysis carbon	1329.8	11.2	1583.4	10.5
Domestic log fire (air cooled)	1318.8	8.0	1583.2	6.9
Giant reed	1326	13.9	1581.6	11.0
TLUD top middle	1331.8	6.3	1581.4	3.9
Flash corn bottom	1328.4	8.2	1580.4	2.7
Flash oak middle	1329	7.1	1579.4	8.6
Ancient oak	1331.6	17.0	1578.4	11.2
COST II	1341.6	3.3	1574.4	5.1
Tasmanian blackwood	1332	18.3	1574.2	6.6
Coconut shell char	1322.8	11.4	1572.8	9.8
UC fast Pyrolysis	1334	7.2	1572.2	4.8
COST III	1334.4	10.1	1572	9.4
BSe-550	1326.8	10.3	1569.6	2.7
BSe-550 HF	1327.4	10.5	1569.4	1.9
MAe-450	1332.6	8.7	1566	3.2
Flash oak bottom	1324	13.5	1563.6	38.7
MAe-450 HF	1323.2	5.6	1561.8	5.7
UC slow Pyrolysis	1309.8	7.8	1529.6	42.5
BSe-450	1310.8	5.3	1522.8	17.7
BSe-450 HF	1312.2	3.0	1513.6	11.3
BSe-350 HF	1309.6	0.6	1509	7.1
Yealand's Estate Auger	1311.8	18.8	1507.8	7.2
BSe-350	1304.4	3.4	1507.4	3.8
MAe-350	1303.6	8.5	1506.6	10.5
Rotomahana tephra	1310	2.0	1504.6	6.6
Palm empty fruit bunch	1300	8.3	1502.8	3.4
MAe-350 HF	1303.8	16.5	1502.4	3.3
BSe-250	1307.2	7.4	1502.2	4.0
Noname beach (Australian tephra)	1306.4	3.1	1501.4	1.5
BSe-250 HF	1306.4	4.4	1500.6	1.5
MAe-250	1294.6	5.1	1500.2	0.5
MAe-250 HF	1291.8	1.5	1500	

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Name	D band / G band height ratio	99% confidence interval $\pm$	Valley / G band height ratio	99% confidence interval $\pm$
Leucan metal kiln	1.21	0.08	0.41	0.03
Fluidyne gasifier	1.32	0.08	0.46	0.03
Cone kiln (TFOD)	1.14	0.04	0.41	0.01
Massey open source (Run 5)	1.07	0.02	0.40	0.02
COST I	1.10	0.02	0.52	0.02
Stardust Continuous	1.16	0.07	0.52	0.07
Rice husk char	1.25	0.05	0.52	0.10
Domestic log fire (water quenched)	1.13	0.04	0.54	0.03
Mixed sawdust Kiln	1.09	0.11	0.51	0.12
Anthracite coal	0.93	0.03	0.52	0.10
Yealand's Estate Batch	1.16	0.09	0.64	0.13
Tire pyrolysis carbon	1.01	0.06	0.71	0.08
Domestic log fire (air cooled)	1.10	0.08	0.64	0.04
Giant reed	1.05	0.08	0.66	0.17
TLUD top middle	0.99	0.04	0.57	0.05
Flash corn bottom	1.01	0.02	0.58	0.04
Flash oak middle	1.06	0.18	0.67	0.10
Ancient oak	0.98	0.08	0.80	0.13
COST II	1.04	0.02	0.74	0.08
Tasmanian blackwood	0.96	0.04	0.74	0.06
Coconut shell char	1.07	0.04	0.80	0.15
UC fast Pyrolysis	0.96	0.03	0.74	0.02
COST III	1.12	0.03	0.87	0.06
BSe-550	0.98	0.02	0.85	0.03
BSe-550 HF	0.98	0.01	0.81	0.01
MAe-450	0.94	0.03	0.88	0.04
Flash oak bottom	0.92	0.12	0.76	0.14
MAe-450 HF	0.93	0.01	0.90	0.02
UC slow Pyrolysis	0.84	0.10	0.91	0.12
BSe-450	0.91	0.04	0.96	0.02
BSe-450 HF	0.90	0.02	0.95	0.01
BSe-350 HF	0.78	0.03	0.98	0.02
Yealand's Estate Auger	0.76	0.09	0.99	0.01
BSe-350	0.83	0.01	0.99	0.01
MAe-350	0.77	0.04	0.99	0.01
Rotomahana tephra	0.66	0.17	0.99	0.02
Palm empty fruit bunch	0.80	0.04	0.99	0.01
MAe-350 HF	0.78	0.03	0.99	0.01
BSe-250	0.82	0.01	0.997	0.003
Noname beach (Australian tephra)	0.87	0.01	0.999	0.001
BSe-250 HF	0.80	0.02	0.999	0.002
MAe 250	0.86	0.01	1.000	0.001
MAe 250 HF	0.79	0.04	1.000	

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Name	A band / G band height ratio	99% confidence interval $\pm$	photoluminescence slope/G band height ratio ( $\mu\text{m}$ )	99% confidence interval $\pm$
Leucan metal kiln	0.63	0.01	-0.8	0.2
Fluidyne gasifier	0.63	0.04	0.7	0.6
Cone kiln (TFOD)	0.58	0.02	-1.3	0.6
Massey open source (Run 5)	0.59	0.02	0.1	0.5
COST I	0.72	0.02	1.0	1.3
Stardust Continuous	0.78	0.09	7.8	4.4
Rice husk char	0.72	0.10	-2.5	4.9
Domestic log fire (water quenched)	0.76	0.02	0.4	0.1
Mixed sawdust Kiln	0.66	0.13	6.0	5.6
Anthracite coal	0.74	0.17	24.9	11.0
Yealand's Estate Batch	0.86	0.14	2.5	2.1
Tire pyrolysis carbon	0.93	0.12	13.6	14.7
Domestic log fire (air cooled)	0.83	0.04	3.5	4.6
Giant reed	0.83	0.14	5.8	10.4
TLUD top middle	0.75	0.04	7.0	3.7
Flash corn bottom	0.75	0.03	4.5	1.0
Flash oak middle	0.85	0.10	10.2	4.9
Ancient oak	1.38	0.27	124.3	48.7
COST II	0.92	0.10	13.2	6.0
Tasmanian blackwood	0.89	0.07	10.0	2.7
Coconut shell char	0.99	0.17	15.4	11.2
UC fast Pyrolysis	0.90	0.02	15.1	1.0
COST III	1.01	0.04	8.1	4.8
BSe-550	0.99	0.04	15.9	3.0
BSe-550 HF	0.95	0.01	14.9	1.0
MAe-450	1.02	0.05	22.2	1.7
Flash oak bottom	0.91	0.15	17.0	15.6
MAe-450 HF	1.04	0.01	24.6	0.4
UC slow Pyrolysis	1.15	0.15	49.0	22.9
BSe-450	1.11	0.04	24.7	1.2
BSe-450 HF	1.08	0.01	30.8	2.1
BSe-350 HF	1.12	0.04	47.6	1.9
Yealand's Estate Auger	1.18	0.03	52.1	14.6
BSe-350	1.14	0.01	32.8	5.3
MAe-350	1.21	0.05	56.4	12.8
Rotomahana tephra	1.72	0.19	187.5	48.4
Palm empty fruit bunch	1.19	0.04	46.1	4.3
MAe-350 HF	1.16	0.02	49.3	2.3
BSe-250	1.20	0.02	31.4	3.1
Noname beach (Australian tephra)	1.182	0.004	23.0	7.8
BSe-250 HF	1.21	0.01	24.5	7.7
MAe-250	1.20	0.01	19.0	4.4
MAe-250 HF	1.23	0.03	28.0	7.1

