

BRAMMER STANDARD ONLINE CATALOG-COMBUSTION MATERIALS

C, S, O, N IN IRON AND STEEL, CHART 1 of 4

# = class, 1 = CRM and 2 = RM analysis in mass % 34, 17025 = ISO

#	Number	Carbon	Sulfur	Oxygen	Nitrogen	Units
1	AR 510-513A	2.41	0.091	.	.	250 g
1	AR 893-1121Q	1.59	0.0012	.	.	454 g
1	JSS 202-2	1.443	.	.	.	150 g
1	JSS 202-1	1.386	.	.	.	150 g
1	NH M02	1.34	0.007	.	.	150 g
1	NCS NS18016	1.19	0.0080	.	.	100 g
1	Y 31916	1.19	0.0080	.	.	100 g
1	ECRM 268-1C	1.134	0.0154	.	2.03	100 g
1	NCS NS18015	1.09	0.018	.	.	100 g
1	Y 31915	1.09	0.018	.	.	100 g
1	JSS 208-4	1.017	.	.	.	150 g
1	DSZU CA02A	1.03	0.0021	.	0.0030	150 g
2	KMS HCS-002	1.013	0.123	.	.	100 g
1	JSS 208-3	0.998	.	.	.	150 g
1	DSZU CX010a	0.993	0.0203	.	.	200 g
1	AR 889-419J	0.928	0.0020	.	.	454 g
1	NCS NS18014	0.990	0.0041	.	.	100 g
1	Y 31914	0.990	0.0041	.	.	100 g
2	CZ 2008A	0.977	0.0091	.	0.0066	250 g
1	TH 1006-4	0.952	0.0111	.	0.0046	100 g
1	AR 953-421G	0.948	0.0010	.	0.0044	150 g
2	SAG 0703	0.924	0.0041	17025	0.0070	100 g
1	NCS NS18013	0.890	0.022	.	.	100 g
1	Y 31913	0.890	0.022	.	.	100 g
1	VS U13/4	0.888	0.0070	.	.	100 g
1	AR 885-520Z	0.820	0.0055	.	.	454 g
2	SAG 0704	0.818	0.0040	17025	0.0040	100 g
1	NCS NS13026	0.81	.	.	.	100 g
1	NM 505	0.79	0.006	.	.	100 g
1	AR 875-723B	0.787	0.015	.	.	454 g
1	AR 886-319H	0.729	0.022	.	.	454 g
1	TH 1027-2	0.726	0.0092	.	0.003	100 g
1	NCS NS13025	0.725	.	.	.	100 g
1	IPT 60A	0.715	0.012	.	.	100 g
2	SAG 0709	0.704	0.0064	17025	0.0030	100 g
1	NCS NS11010	0.703	0.010	.	.	50 g
1	ECRM 049-1	0.701	0.0040	.	0.0031	100 g
2	CZ 2007A	0.684	0.0106	.	0.0128	250 g
1	AR 874-1119A	0.658	0.0108	.	.	454 g
1	NCS NS18012	0.610	0.0095	.	.	100 g
1	Y 31912	0.610	0.0095	.	.	100 g
1	ECRM 079-2	0.596	0.192	.	0.0074	100 g
1	NCS NS13024	0.59	.	.	.	100 g
1	SRM 2160	0.584	0.012	.	.	200 g
2	BS CSN 2-2	0.548	0.028	.	0.076	500 g
1	AR 894-416B	0.544	0.0103	.	.	454 g
1	NCS NS18011	0.543	0.012	.	.	100 g
1	Y 31911	0.543	0.012	.	.	100 g
1	NCS NS28027	0.523	0.017	.	.	100 g
1	NCS NS93011	0.512	0.0095	.	.	100 g
1	IPT 59A	0.495	0.018	.	.	100 g
1	AR 948-821A	0.492	0.079	.	0.0093	150 g
1	NCS NS13005	0.485	0.024	.	.	100 g
1	NCS NS13023	0.48	.	.	.	100 g
1	IARM 259A	0.479	0.0007	0.0014	0.0077	100 g
1	AR 884-420U	0.472	0.0121	.	.	454 g
1	AR 873-523V	0.470	0.012	.	.	454 g
1	NCS NS28029	0.465	0.020	.	.	100 g
1	NCS NS28005	0.462	0.0096	.	.	100 g
2	CZ 2006A	0.461	0.0172	.	0.0066	250 g
1	AR 952-1120N	0.455	0.029	.	0.0095	150 g
1	NCS NS18010	0.455	0.019	.	.	100 g
1	Y 31910	0.455	0.019	.	.	100 g
2	DH E2184	0.4433	0.0152	.	.	50 g

# Number Carbon Sulfur Oxygen Nitrogen Units

C, S, O, N IN IRON AND STEEL, CHART 2 of 4

# = class, 1 = CRM and 2 = RM analysis in mass % 34, 17025 = ISO

#	Number	Carbon	Sulfur	Oxygen	Nitrogen	Units
2	SAG 0707	0.435	0.1965	17025	0.0064	100 g
1	AR 956-320P	0.430	0.261	.	0.0069	150 g
1	ECRM 058-2C	0.424	0.1712	.	0.0107	100 g
1	AR 954-218B	0.417	0.027	.	0.0083	150 g
1	NCS NS28004	0.416	0.022	.	.	100 g
1	NCS NS18009	0.415	0.020	.	.	100 g
1	Y 31909	0.415	0.020	.	.	100 g
1	NCS NS11088	0.411	0.0040	.	.	100 g
2	DH E2335	0.4043	0.0626	.	0.0007	50 g
2	DH E23-331	0.3886	0.0547	.	.	50 g
1	NCS NS18008	0.376	0.028	.	.	100 g
1	Y 31908	0.376	0.028	.	.	100 g
1	NCS NS93012	0.375	0.046	.	.	100 g
1	NCS NS13022	0.37	.	.	.	100 g
2	CZ 2005A	0.358	0.0250	.	0.0081	250 g
1	NCS NS93005	0.357	0.018	.	.	100 g
2	SAG 0706	0.347	0.0245	17025	0.0098	100 g
1	NCS NS28025a	0.330	0.024	.	.	100 g
1	NCS NS11003	0.322	0.020	.	.	150 g
1	IPT 58A	0.316	0.021	.	.	120 g
1	NCS NS18007	0.312	0.026	.	.	100 g
1	Y 31907	0.312	0.026	.	.	100 g
1	NCS NS93009	0.310	0.031	.	.	100 g
1	JSS 252-4	0.295	0.0404	.	.	150 g
1	NCS NS93004	0.293	0.040	.	.	100 g
1	NCS NS18006	0.282	0.033	.	.	100 g
1	Y 31906	0.282	0.033	.	.	100 g
1	AR 895-621V	0.274	0.0216	.	.	454 g
2	SAG 0708	0.257	0.0014	17025	.	100 g
1	NCS NS11011	0.235	0.039	.	.	100 g
1	NCS NS93008c	0.233	0.030	.	.	100 g
1	VS U19/2	0.233	0.030	.	.	100 g
1	AR 883-719C	0.216	0.0183	.	.	454 g
1	NCS NS13021	0.21	.	.	.	100 g
1	NCS NS18005	0.204	0.022	.	.	100 g
1	Y 31905	0.204	0.022	.	.	100 g
1	AR 955-719F	0.201	0.025	.	0.0071	150 g
2	DH E2218	0.1989	0.0014	.	0.0155	50 g
1	VS 6-2	0.195	0.0250	.	.	100 g
1	NCS NS93014	0.190	0.030	.	.	100 g
2	DH E2161	0.1843	0.0043	.	0.0186	50 g
2	SAG 0705	0.184	0.0020	17025	0.0580	100 g
1	VS U15/6	0.182	0.0218	.	.	100 g
1	JK 21	0.1741	0.011	.	0.008	150 g
1	AR 872-1221T	0.172	0.0082	.	.	454 g
2	DH E21-372	0.1720	0.0011	.	0.0120	50 g
2	DH E21-371	0.1712	0.0011	.	0.0119	50 g
1	NCS NS18004	0.171	0.0102	.	.	100 g
1	Y 31904	0.171	0.0102	.	.	100 g
1	AR 951-1220P	0.168	0.019	.	0.0102	150 g
2	DH E23-291	0.1668	0.0007	.	0.0050	50 g
1	ECRM 077-3	0.1650	0.0162	.	0.00860	100 g
1	AR 896-1021N	0.165	0.087	.	.	454 g
2	DH E2172	0.1611	0.0147	.	.	50 g
1	NCS NS28021	0.160	0.028	.	.	100 g
2	DH E2122	0.1599	0.0016	.	0.0078	50 g
1	AR 957-421K	0.157	0.096	.	0.0077	150 g
2	SAG 0710	0.155	0.0209	17025	.	100 g
2	DH E23-211	0.154	0.0009	.	0.0040	50 g
2	DH E2201	0.1492	0.0048	.	.	50 g
1	NCS NS93013b	0.146	0.014	.	.	100 g
2	DH E2106	0.1406	0.0277	.	0.0063	50 g
2	DH E2334	0.135	0.0010	.	0.0147	50 g
1	AR 888-119E	0.134	0.229	.	.	454 g
2	DH E2175	0.1290	0.0181	.	.	50 g

# Number Carbon Sulfur Oxygen Nitrogen Units

## BRAMMER STANDARD ONLINE CATALOG-COMBUSTION MATERIALS

## C, S, O, N IN IRON AND STEEL, CHART 3 of 4

# = class, 1 = CRM and 2 = RM analysis in mass %

#	Number	Carbon	Sulfur	Oxygen	Nitrogen	Units
1	AR 960-814B	0.121	0.0221	.	0.036	150 g chips
1	NCS NS11086	0.116	0.0020	.	.	100 g chips
1	NCS NS11087	0.113	0.0023	.	.	100 g chips
1	AR 890-320M	0.110	0.0046	.	.	454 g 1 g pins
2	DH E21-211	0.1080	0.0007	.	0.0102	50 g chips
1	NM 504	0.107	0.027	.	.	100 g 1 g pins
1	VS U17/4	0.106	0.137	.	.	100 g chips
1	AR 868-818A	0.102	0.0053	.	.	454 g 1 g rings
1	NCS NS13020	0.10	.	.	.	100 g chips
2	DH E21-162	0.0974	0.0104	.	0.0079	50 g chips
2	DH E2111	0.0953	0.0066	.	.	50 g chips last of stock
1	VS 6-1	0.094	0.0205	.	.	100 g chips
1	TH 1041	0.0925	0.0100	.	.	100 g chips
1	NH M01	0.090	0.057	.	.	150 g chips
1	AR 514-518D	0.087	0.335	.	.	250 g 0.5 g pins
1	NCS NS11085	0.087	0.0053	.	.	100 g chips
1	VS S41/5	0.085	0.0069	.	0.142	100 g chips
1	JK 56	0.085	(0.00030)	.	0.0108	50 g 0.5 g pins
1	NCS NS18003	0.082	0.035	.	.	100 g chips
1	Y 31903	0.082	0.035	.	.	100 g chips
2	DH E23-201	0.0800	0.0027	.	0.0120	50 g chips
2	DH E2317	0.0795	0.0014	.	.	50 g chips
2	DH E2318	0.0793	.	.	.	50 g chips
2	CZ 2004A	0.079	0.0464	.	0.0038	250 g chips
1	TH 1042-3	0.079	0.0231	.	0.0091	100 g chips
1	TH 1042-2	0.0778	0.0227	.	0.0087	100 g chips
1	DSZU CX020a	0.076	0.034	.	.	200 g chips
1	HORIBA 1603-1A	0.072	0.198	.	.	100 g 1 g pins
2	BS CSN A	0.068	0.305	.	0.0081	100 g chips
2	CZ 2026A	0.068	0.255	.	.	250 g chips
1	NCS NS11100	0.066	0.0033	.	0.161	50 g chips
1	ECRM 294-1C	0.0657	0.00031	.	0.566	100 g chips
1	AR 511-519A	0.064	0.272	.	.	250 g 0.5 g pins
2	DH E2326	0.0637	0.0013	.	.	50 g chips
2	DH E23-221	0.0622	0.0007	.	0.0031	50 g chips
2	DH E2322	0.0609	0.0009	.	.	50 g chips, last
2	DH E21-961	0.0609	0.0006	.	0.0034	50 g chips
1	HORIBA 1601-1A	0.0602	0.545	.	0.0082	100 g chips
1	JK 54	0.0535	0.0007	0.0046	0.0229	100 pieces of discs 7 mm Ø x 4 mm
2	DH E22041	0.0469	0.0277	.	0.0035	50 g chips
1	JSS 201-15	0.0439	.	.	.	150 g chips
1	JSS 201-16	0.0413	.	.	.	150 g chips
1	NCS NS11026a	0.041	0.0025	.	.	100 g chips
2	CZ 2003A	0.0402	0.0316	.	0.0046	250 g chips
1	AR 871-323J	0.037	0.015	.	.	454 g 1 g rings
1	TH 1039-2	0.0352	0.0222	.	0.0027	100 g chips
1	ECRM 273-1C	0.0336	0.0004	.	0.0444	100 g chips
1	VS U10/5	0.032	0.0124	.	.	100 g powder
1	AR 870-819A	0.028	0.025	.	.	454 g 1 g rings
1	AR 961-719B	0.0242	0.0100	.	0.046	150 g powder
1	AR 513-1216D	0.021	0.387	.	.	250 g 0.5 g pins
1	NCS NS11040	0.019	0.0116	.	.	100 g chips
1	IARM 214A	0.018	0.002	0.0026	0.27	100 g chips
1	JSS 204-2	0.0178	.	.	.	150 g chips
1	AR 958-819B	0.0172	0.0227	.	0.0759	150 g chips
1	AR 869-920K	0.017	0.0026	.	.	454 g 1 g rings
1	AR 945-418A	0.017	0.0004	.	0.341	150 g chips
1	ECRM 295-1C	0.0166	0.0004	.	0.0615	100 g chips
1	ECRM 298-1C	0.0146	0.0006	.	0.263	100 g chips last
1	JK 36	0.0125	0.0126	.	0.0337	150 g chips
2	KMS HNCS-001	0.01017	0.00377	.	0.0436	100 g 1 g pins
1	JSS 1203-6	0.00899	.	.	.	150 g chips
1	AR 881-222D	0.0085	0.0016	.	.	454 g 1 g pins

# Number Carbon Sulfur Oxygen Nitrogen Units

## C, S, O, N IN IRON AND STEEL, CHART 4 of 4

# = class, 1 = CRM and 2 = RM analysis in mass %

#	Number	Carbon	Sulfur	Oxygen	Nitrogen	Units
1	SRM 166c	0.00781	.	.	.	100 g chips
1	NCS NS11039	0.0051	0.0058	.	.	100 g chips
2	DH E2156	0.00483	0.01515	.	.	50 g chips
1	JSS 1202-4	0.00476	.	.	.	150 g chips
1	NCS NS11041a	0.0037	0.0054	.	.	100 g chips
2	DH E2163	0.0036	0.0026	.	.	50 g chips
1	VS U14/5	0.0023	0.0057	.	.	100 g chips
1	JSS 1207-3	0.00221	.	.	.	150 g chips
1	NCS NS11012a	0.0021	0.0068	.	.	100 g chips
2	CZ 2025A	0.0020	0.0018	.	.	200 g chips
1	JSS 1206-2	0.00192	.	.	.	150 g chips
1	JSS 1205-3	0.00081	.	.	.	150 g chips
1	SRM 131H	(0.00078)	0.00074	.	.	100 g chips
2	KMS LCSON-001g	0.00069	0.00059	0.00093	0.00072	100 g 1 g pins last
1	JSS 1201-4	0.00066	.	.	.	150 g chips
1	AR 673-120F	0.0006	0.0016	.	.	454 g 1 g rings
2	KMS LCSN-003a	0.00048	0.00043	.	0.00050	100 g chips
2	KMS HOCs-002	0.0004	0.0010	0.0228	0.0004	100 g 1 g pins
1	JSS 243-8	.	0.397	.	.	150 g chips
1	JSS 243-7	.	0.379	.	.	150 g chips
1	NCS NS13032	.	0.096	.	.	100 g chips
1	JSS 245-7	.	0.0611	.	.	150 g chips
2	DH E2154	.	0.0472	.	.	50 g chips
1	NCS NS13029	.	0.037	.	.	100 g chips
1	JSS 242-14	.	0.0307	.	.	150 g chips
1	JSS 242-13	.	0.0297	.	.	150 g chips
2	JSM M463-1	.	0.0218	.	.	74 g 0.74 g pins
1	JSS 241-13	.	0.0202	.	.	150 g chips
1	NCS NS13028	.	0.017	.	.	100 g chips
1	NCS NS13027	.	0.0105	.	.	100 g chips
1	JSS 240-14	.	0.0042	.	.	150 g chips last
1	JSS 240-15	.	0.00387	.	.	150 g chips
1	JSS 244-12	.	0.00177	.	.	150 g chips
1	SRM 2168	.	0.00107	.	.	150 g chips

# Number Carbon Sulfur Oxygen Nitrogen Units

## RM OXYGEN IN STEEL SET

no uncertainties, SET ONLY discs 37 mm Ø x 20 mm

Number	O	Number	O
JSM M405a 01a	<0.001	JSM M405a 4a	0.053
JSM M405a 02a	0.018	JSM M405a 5a	0.075
JSM M405a 3a	0.037	JSM M405a 6a	0.12

BRAMMER STANDARD ONLINE CATALOG-COMBUSTION MATERIALS

OXYGEN AND NITROGEN IN IRON AND STEEL

# = class, 1 = CRM 2 = RM analysis in mass %

#	Number	O	N	Size	Form
1	AR KED 1025-419E	0.91	0.0133	50 g	powder
1	AR 675-1122T	0.172	0.268	50 g	0.5 g pins
2	JSM M403-7	0.1338	0.00056	100 g	1 g pins
2	NS17-1	0.1151	.	50 g	0.5 g pins, last of stock
2	NS17-1-30	0.1146	.	50 g	0.5 g pins
1	JSS 389-2	0.0458	.	8 rods	5 mm Ø x 230 mm
2	SS-10-21	0.04402	0.00125	50 g	0.5 g pins
1	BAM 029-1	0.0312	0.0083	100 g	3 rods, 8 mm Ø x 80 mm
1	JSS 387-3	0.0226	.	8 rods	5 mm Ø x 230 mm
1	Y TSN012	0.0221	0.0020	25 g	0.5 g balls
1	NCS NS93028	0.0221	0.0020	25 g	0.5 g balls
1	DSZU CA05	0.0202	0.0044	100 g	rods, ~2.8 mm Ø x ~80 mm rods
1	VS 7-9	0.020	0.0043	100 g	rods, ~2.5 mm Ø x ~220 mm
1	JK 35	0.0198	no uncertainty	1 rod	10 mm Ø x 500 mm last of stock
2	JSM M402-9	0.01808	0.01312	100 g	1 g pins, last of stock
1	NCS NS11072	0.018	0.0014	50 g	1 g balls
1	JSS 387-1	0.0179	.	8 rods	5 mm Ø x 230 mm, last of stock
2	SS-3-72	0.01765	0.00574	100 g	1 g pins
1	NCS NS20050	0.0166	0.0026	50 g	1 g balls
1	NCS NS93021	0.0160	0.0017	50 g	1 g balls
1	Y TSN005	0.0160	0.0017	50 g	1 g balls
1	NCS NS93025	0.0157	0.0018	rod	4.8 mm Ø x 30 cm
1	DSZU CA08	0.0152	0.0034	50 g	0.5 g pins
1	JSS 386-1	0.0142	.	8 rods	5 mm Ø x 230 mm
1	NCS NS11076	0.014	0.0052	50 g	1 g balls
1	NCS NS93022	0.0130	0.0038	50 g	1 g balls
1	Y TSN006	0.0130	0.0038	50 g	1 g balls
1	VS 7-8	0.0121	0.0072	100 g	rods, ~3 mm Ø x 200 mm
1	DSZU CA06	0.0120	0.0072	100 g	rods, ~2.8 mm Ø x ~80 mm rods
1	NCS NS93027	0.0120	0.0022	50 x x	1.06 g balls
1	NCS NS11050	0.0120	0.0019	50 g	1 g balls
1	NCS NS93018	0.0117	0.0023	50 g	1 g balls
1	Y TSN002	0.0117	0.0023	50 g	1 g balls
1	BAM 028-1	0.0113	0.0029	100 g	3 rods, ~3 mm Ø x ~80 mm
1	VS 7-14/1	0.011	0.0101	100 g	rods, ~4 mm Ø x ~10 mm rods
1	NCS NS11074	0.011	0.0018	50 g	1 g balls
1	Y 41129	0.0108	0.0027	50 g	1 g balls
1	NCS NS11056	0.0107	0.142	50 g	1 g balls
1	NCS NS11076a	0.0102	0.0052	50 g	1 g balls
1	NCS NS22014	0.0104	0.182	50 g	0.5 g pins
1	VS 7-14/2	0.0103	0.0096	100 g	rods, ~4 mm Ø x ~10 mm rods
1	BCS 318B	0.0103	.	100 g	1 rod, 12.7 mm Ø x 127 mm
2	SS-2-117	0.01015	0.00195	100 g	1 g pins
1	VS 7-14	0.0100	0.0101	100 g	rods, ~4 mm Ø x ~10 mm rods
1	NCS NS11099	0.010	0.069	50 x 5	mm Ø balls
1	AR 657-622R	0.0097	0.0100	50 g	0.5 g pins
1	BCS 318A	0.0096	.	100 g	2 rods, 6.35 mm Ø x 95 mm
1	AR 1650-522L	0.0090	0.0103	100 g	1 g pins
1	BAM 027-1	0.0084	0.0157	100 g	3 rods, 8 mm Ø x 80 mm
1	NCS NS28036a	0.0083	0.0067	50 g	1 balls
1	58A MS51012	0.0079	0.0149	50 g	1 g balls
1	NCS NS22013	0.0079	0.0149	50 g	0.5 g pins
1	NCS NS93023	0.0078	0.0023	50 g	1 g balls
1	Y TSN007	0.0078	0.0023	50 g	1 g balls
1	JK 34	0.0068	.	1 rod	8 mm Ø x 500 mm each
1	NCS NS11052	0.0062	0.00075	50 g	1 g balls
1	NCS NS20049	0.0058	0.0040	50 g	1 g balls
1	DSZU CA07	0.0055	0.0292	100 g	rods, ~1.7 mm Ø x ~80 mm rods
1	VS 7-7	0.0055	0.0292	50 g	~1.5 mm Ø x ~115 mm rods
1	HORIBA 1602-1A	0.0054	0.043	100 g	1 g pins
1	NCS NS11064	0.0051	0.028	50 g	1 balls
1	NCS NS93031	0.0044	0.0214	50 g	1 g balls
1	Y TSN009	0.0043	0.0380	25 g	0.5 g balls
1	58A SD51075	0.0043	0.0100	50 g	1 g balls
1	NCS NS11043a	0.0042	0.030	50 g	0.5 g balls
1	NCS NS11096	0.0042	0.022	50 x	6.35 mm Ø balls
1	NCS NS22012	0.0040	0.0526	50 g	0.5 g pins
1	AR 660-522K	0.0038	0.0075	50 g	0.5 g pins
1	AR 654-821D	0.0037	0.0569	50 g	0.5 g pins
1	58A SD51074	0.0037	0.0253	50 g	0.5 g balls
1	AR 1651-921G	0.0036	0.0228	100 g	1 g pins
1	AR 1657-115B	0.0034	0.0319	100 g	1 g pins
1	NCS NS11073	0.0034	0.019	25 g	0.5 g balls
1	AR 645-1121R	0.0034	0.0069	100 g	1 g pins
1	NCS NS28042c	0.0034	0.0042	50 g	1 balls

#	Number	O	N	Size	Form
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OXYGEN AND NITROGEN IN IRON AND STEEL

# = class, 1 = CRM 2 = RM analysis in mass %

#	Number	O	N	Size	Form
1	NCS NS11063a	0.0033	0.047	50 g	0.5 g balls
1	AR 667-722Y	0.0033	0.0354	50 g	0.5 g pins
1	NCS NS93030	0.0033	0.0233	50 g	1 g balls
1	AR 656-921F	0.0032	0.0194	50 g	0.5 g pins
1	AR 1647-419K	0.0031	0.140	100 g	1 g pins
1	AR 1652-1221S	0.0031	0.0537	100 g	1 g pins
1	NCS NS28042a	0.0031	0.0058	50 g	1 balls
1	BAM 026-1	0.0031	0.0053	100 g	3 rods, 8 mm Ø x 80 mm
1	NCS NS11098	0.0031	0.0030	50 x	6.35 mm Ø balls
1	NCS NS11063	0.0030	0.044	50 g	0.5 g balls
1	NCS NS22011	0.0030	0.0374	50 g	0.5 g balls
1	NCS NS28042b	0.0030	0.0043	50 g	1 balls
1	NCS NS93020	0.0029	0.0036	50 g	1 g balls
1	Y TSN004	0.0029	0.0036	50 g	1 g balls
1	AR 646-921K	0.0028	0.076	100 g	1 g pins
1	NCS NS11063b	0.0028	0.048	50 g	0.5 g balls
1	JK 32	0.0028	.	1 rod	10 mm Ø x 500 mm each
1	AR 663-721Z	0.0026	0.141	50 g	0.5 g pins
1	AR 662-919B	0.0026	0.073	50 g	0.5 g pins
1	BAM 026-2	0.0025	0.0042	100 g	3 rods, 8 mm Ø x 80 mm
1	NCS NS93029	0.0024	0.0826	50 g	1 g balls
1	SRM 1754	0.0024	0.0081	1 rod	0.95 cm x 0.95 cm x 10.2 cm last
1	NCS NS28044b	0.0024	0.0032	50 g	1 balls
1	NCS NS11095	0.0022	0.081	50 x	6.35 mm Ø balls
1	NCS NS11054	0.0023	0.0096	50 g	1 g balls
1	NCS NS20035b	0.0022	0.0061	50 g	1 g balls
1	NCS NS11053	0.0022	0.0032	50 g	1 g balls
1	NCS NS93019	0.0021	0.0035	0.0035	1 g balls
1	Y TSN003	0.0021	0.0035	50 g	1 g balls
1	Y TSN008	0.0020	0.0557	25 g	0.5 g balls
1	AR 655-920H	0.0019	0.391	50 g	0.5 g pins
1	NCS NS11094	0.0019	0.0062	50 x	6.35 mm Ø balls
1	NCS NS11065	0.0019	0.007	50 g	1 balls
1	NCS NS11044a	0.0018	0.063	50 g	1 balls
1	NCS NS28044a	0.0018	0.002	50 g	1 balls
1	NCS NS11061	0.0016	0.0036	50 g	1 g balls
1	NCS NS11061a	0.0016	0.0031	50 g	1 balls
1	JK 31	0.0015	.	1 rod	8 mm Ø x 500 mm each
1	JSS 384-3	0.00147	.	8 rods	5 mm Ø x 230 mm
1	NCS NS11075	0.0014	0.0089	50 g	1 g balls
1	AR 658-717C	0.0013	0.0771	50 g	0.5 g pins
1	NCS NS11051	0.0012	0.0045	50 g	1 g balls
1	NCS NS11062	0.0012	0.0022	50 g	1 balls
1	JSS 383-2	0.00119	.	8 Rods	6 mm Ø x 230 mm
1	NCS NS21002b	0.00115	0.0055	50 g	1 g balls
1	NCS NS11065a	0.0011	0.0071	50 g	1 balls
1	NCS NS93024	0.0011	0.0055	50 g	1 g balls
1	NCS NS93026	0.0011	0.0055	rod	4.8 mm Ø x 30 cm
1	Y TSN010	0.0011	0.0055	50 g	1 g balls
2	SS-4-120	0.00101	0.01294	100 g	1 g pins last
1	AR 668-922J	0.0010	0.0028	50 g	0.5 g pins
1	ECRM 267-1	0.00096	0.0266	100 g	1 g pins
2	SS-4-122	0.00093	0.01289	100 g	1 g pins
2	SS-4-115	0.00095	0.01305	100 g	1 g pins last
2	JSM M401-22	0.00092	0.00504	50 g	0.5 g pins last
1	AR 1658-717D	0.0009	0.0756	100 g	1 g pins
1	VS 7-6	0.0009	0.0067	100 g	~3 mm Ø x ~200 mm rods
1	DSZU CA04	0.00088	0.0067	100 g	rods, ~2.8 mm Ø x ~80 mm rods
1	NCS NS11066a	0.00084	0.0041	50 g	1 balls
1	AR 661-517C	0.0008	0.0091	50 g	0.5 g pins
1	NCS NS11097	0.0008	0.0072	50 x	6.35 mm Ø balls
2	JSM M401-24	0.00073	0.00501	50 g	0.5 g pins
1	AR 1653-922L	0.0007	0.0024	100 g	1 g pins
1	Y TSN011a	0.00068	0.0091	50 g	1 g balls
1	NCS NS11071	0.00065	0.0068	50 g	1 g balls
1	NCS NS11055C	0.00065	0.0023	50 g	1 balls
1	NCS NS11055	0.00058	0.0028	50 g	1 g balls
1	NCS NS11055b	0.00054	0.0031	50 g	1 balls
1	Y TSN013	0.00049	0.0042	50 g	1 g balls
1	NCS NS11067	0.00044	0.0061	50 g	1 balls
1	NCS NS11066	0.00042	0.005	50 g	1 balls
1	JSS 390-1	0.00042	.	~ 380g	8 Rods 6 mm Ø x 230 mm
1	SRM 1094	0.0004	.	1 rod	0.6 mm Ø x 8.2 cm
1	NCS NS11068	0.0003	0.0028	50 g	1 balls
1	DSZU CA01a	0.00035	0.0029	45 g	0.9 g pins
1	JSS 382-1	0.00026	.	~ 380g	8 Rods 6 mm Ø x 230 mm
1	JSAC 0111	0.00023	.	32 mm Ø x	30 mm disc
1	NCS NS11055a	0.0002	0.0022	50 g	1 balls
1	JSS 381-1	(0.00008)	.	~ 380 g	8 Rods 6 mm Ø x 230 mm

#	Number	O	N	Size	Form
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## BRAMMER STANDARD ONLINE CATALOG-COMBUSTION MATERIALS

## NITROGEN IN IRON AND STEEL

# = class, 1 = CRM 2 = RM analysis in mass %

#	Number	N	Size	Form
1	ECRM 268-1C	2.03	100 g	chips
1	NCS NS11103	0.986	50 g	chips
1	NCS NS11106	0.84	50 g	chips
1	NCS NS11105	0.807	50 g	chips
1	NCS NS21013-6	0.66	100 g	chip
1	NCS NS11104	0.59	50 g	chips
1	NCS NS11102	0.564	50 g	chips
1	NCS NS21013-5	0.540	100 g	chip
1	JSS 370-2	0.415	150 g	chips
1	VS 7-22	0.398	100 g	chips
1	NCS NS21013-4	0.313	100 g	chip
1	NCS NS11101	0.293	50 g	chips
1	NCS NS21013-3	0.222	100 g	chip
1	JSS 371-2	0.199	150 g	chips
1	NCS NS21013-2	0.175	100 g	chip
1	NCS NS21013-1	0.075	100 g	chip
1	VS 7-21	0.0241	100 g	chips
2	DH E2126	0.0153	50 g	chips last
1	DH E21-261	0.0152	50 g	chips
1	VS 7-11	0.0152	100 g	chips
1	DSZU CA09	0.0105	50 g	0.5 g pins
1	NCS NS13011	0.0099	150 g	chips
1	NCS NS13010	0.0096	150 g	chips
1	VS 7-3/2	0.0093	100 g	chips
1	NCS NS13009	0.0078	150 g	chips
1	NCS NS13037	0.0067	150 g	chips
1	NCS NS13036	0.0064	150 g	chips
1	NCS NS14003	0.0048	100 g	chips
1	JSS 367-9	0.0044	150 g	chips last
1	NCS NS13034	0.0044	150 g	chips
1	NCS NS13033	0.0043	150 g	chips
1	VS 7-2/2	0.0039	100 g	chips
1	VS 7-10	0.0038	100 g	chips
1	JSS 367-10	0.00357	150 g	chips
1	JSS 366-9	0.00065	150 g	chips last
1	JSS 366-10	0.00053	150 g	chips

## CRM ALUMINUM IN STEEL

analysis listed in mass % chips 150 g

Number	Al	B	P	Si
JSS 330-4	0.0492	.	.	.
JSS 330-4	0.0063	.	.	.

## HYDROGEN IN IRON AND STEEL

analysis listed in mass % except \* which is mg/kg (ppm)

#	Number	H*	C	S	O	N	Size	Form	Comments
1	NCS NS11111	10	.	.	0.017	0.064	25 g	0.5 g pins	
1	NCS NS11109	9	.	.	0.023	0.040	25 g	0.5 g pins	
1	<b>BS CSONH</b>	8	1.02	0.011	0.116	0.025	100 g	powder	<b>17034</b>
1	NCS NS11110	7.6	.	.	0.0027	0.048	50 g	1 g balls	
2	SS-5-38	7.42	.	.	.	.	100 g	10 g rods	4 mm Ø x 100 mm each
2	SS-5-33	7.28	last	.	.	.	100 g	10 g rods	4 mm Ø x 100 mm each
1	DSZU CA033	7.2	.	.	0.0071	0.051	50 g	1 g pins	
1	58A HP51012	7.2	.	.	.	.	20 g	1 g balls	
1	NCS NS11082	7.2	.	.	.	.	20 g	1 g pins	
1	DSZU CA036	(7)	.	.	0.0133	0.0982	50 g	0.5 g pins	
1	JSS GS7-2	6.6	.	.	.	.	8 rods	5 mm Ø x 230 mm each	
1	CMSI 3012-3	6.5	.	.	.	.	40 g	2 g balls	
1	NCS NS11080	6.4	.	.	.	.	20 g	1 g balls	
1	DSZU CA034	6.2	.	.	0.0054	0.073	50 g	1 g pins	
2	JSM M482-1	6.15	.	.	.	.	100 g	1 g balls	
1	NM 507	6.12	.	.	0.0081	0.0383	100 g	1 g pins	
1	DSZU CA031	6.1	.	.	0.0025	0.0072	50 g	1 g pins	
1	NCS NS20001a	6.00	.	.	.	.	20 g	1 g balls	
1	TL 2101	6.0	0.0238	(0.0010)	0.0035	0.0964	50 g	0.5 g pins	
1	NCS NS11078	5.8	.	.	0.0031	0.031	50 g	1 g balls	
1	58A HP51011	5.8	.	.	0.0033	0.0305	20 g	1 g balls	
1	DSZU CA012	5.4	.	.	0.0058	0.0322	50 g	1 g pins	
1	Y TSH001	4.6	.	.	.	.	50 g	1 g balls	
1	58A HP51010	4.1	.	.	.	.	20 g	1 g balls	
1	DSZU CA040	4.0	.	.	0.0036	0.0335	50 g	1 g balls	
1	<b>BS 316G</b>	4	0.021	0.0213	0.0034	0.038	1 disc	38 mm Ø x ~7-or 19+ mm	<b>17034</b>
1	<b>BS 304C</b>	4	0.024	0.027	0.0050	0.077	1 disc	38 mm Ø x ~7-or 19+ mm	<b>17034</b>
1	NCS NS20042	3.55	.	.	.	.	20 g	1 g balls	
1	NCS NS11112	3.3	.	.	0.0037	0.046	50 g	1 g balls	
1	<b>BS 1763</b>	3	0.271	0.024	0.008	0.0100	1 disc	37 mm Ø x 19 or 20 mm	<b>17034</b>
1	NM 506	2.90	.	.	0.0104	0.0110	100 g	1 g pins	
1	58A HP51009	2.9	.	.	.	.	20 g	1 g balls	
1	NCS NS11081	2.7	.	.	.	.	20 g	1 g pins	
1	TL 2100	2.6	0.0304	0.0030	0.0042	0.0304	50 g	0.5 g pins	
1	AR 555-1021M	2.5	.	.	.	.	100 g	1 g pins	
1	58A HP51008	2.2	.	.	.	.	20 g	1 g balls	
1	NCS NS11084	2.2	.	.	.	.	20 g	1 g balls	
1	58A NK51085	2.0	.	.	0.0025	0.058	50 g	1 g balls	
1	<b>BS HON V</b>	2	0.023	0.0015	0.0036	0.029	100 g	1 g balls	<b>17034</b>
1	<b>BS 37H</b>	2	1.55	0.0009	0.0013	0.028	1 disc	38 mm Ø x ~7 or 19+ mm	<b>17034</b>
1	<b>BS 1040</b>	2	0.402	0.032	0.0023	0.0111	1 disc	28 mm Ø x ~7 or 19+ mm	<b>17034</b>
1	<b>BS 9310</b>	2	0.091	0.0053	0.0009	0.0107	1 disc	41 mm Ø x ~7 or 19+ mm	<b>17034</b>
1	JSS GS9-2	2.0	.	.	.	.	8 rods	5 mm Ø x 245 mm each	
1	DSZU CA037	(2)	.	.	0.0127	0.0857	50 g	1g pins	
1	58A HP51007	1.8	.	.	.	.	20 g	1 g balls	
1	NCS NS11077	1.8	.	.	0.0036	0.034	20 g	1 g balls	
2	JSM M481-3	1.74	.	.	.	.	100 g	1 g balls	
1	DSZU CA032	1.7	.	.	0.0097	0.0309	20 g	1 g pins	
1	58A HP51006	1.6	.	.	0.0038	0.0330	20 g	1 g balls	
1	58A HP51005	1.3	.	.	.	.	20 g	1 g balls	
1	NCS NS11083	1.3	.	.	.	.	20 g	1 g balls	
1	BAM CRM H2	1.26	.	.	.	.	100 g	1 g pins EXPIRES DEC 31/2026	
1	NCS NS20025b	1.1	.	.	.	.	20 g	1 g balls	
1	<b>BS 36E</b>	1.0	0.99	0.0013	0.0014	0.0096	1 disc	38 mm Ø x ~7 or 19+ mm	<b>17034</b>
1	<b>BS 420</b>	1.0	0.325	0.0008	0.0039	0.0150	1 disc	38 mm Ø x ~7-or 19+ mm	<b>17034</b>
1	<b>BS 422A</b>	1.0	0.206	0.0013	0.0023	0.066	1 disc	38 mm Ø x ~7-or 19+ mm	<b>17034</b>
1	58A HP51004	0.9	.	.	.	.	20 g	1 g balls	
2	JSM M481-1	0.9	.	.	.	.	100 g	1 g balls	
1	58A HP51003	0.8	.	.	.	.	20 g	1 g balls	
1	<b>BS 55H</b>	0.7	0.394	0.0040	0.0007	0.0052	1 disc	38 mm Ø x ~7-or 19+ mm	<b>17034</b>
1	<b>BS 2023</b>	0.7	0.192	0.027	0.0073	0.0050	100 g	1 g balls	<b>17034</b>
1	58A HP51002	0.5	.	.	.	.	20 g	1 g balls	
2	DSZU CA050	0.5	.	.	.	.	50 g	1 g balls	
#	Number	H*	C	S	O	N	Size	Form	Comments

## CAST IRON CHIPS AND POWDER

# = class, where 1 = CRM and 2 = RM

#	Number	C%	S%	N%	Units	Comment
1	NH M03	5.63	0.008	.	150 g chips	
1	ECRM 490-1	4.813	0.0040	0.0030	100 g chips	
1	<b>CZ 2024B</b>	4.40	0.047	.	200 g chips	<b>17034</b>
2	DH E2502	4.230	0.0498	.	50 g chips	
1	AR 304-120B	4.22	0.0215	.	150 g powder	
1	<b>CZ 2023B</b>	4.06	0.114	.	200 g chips	<b>17034</b>
2	CZ 2023A	4.029	0.0886	.	100 g chips	
1	NCS HC93001	4.01	0.069	.	100 g chips	
1	NCS NS11057	3.98	0.079	.	50 g chips	
1	AR 303-422G	3.88	0.021	.	150 g chips	
1	<b>CZ 2022B</b>	3.86	0.085	.	200 g chips	<b>17034</b>
1	<b>CZ 2021B</b>	3.80	0.043	.	200 g chips	<b>17034</b>
1	NCS NS11058	3.76	0.022	.	50 g chips	
1	AR 309-219D	3.62	0.0191	.	150 g powder	
1	VS Ch11/4	3.61	0.0204	.	100 g powder	
1	NCS NS16002	3.60	0.0186	.	100 g chips	
1	VS Ch10/4	3.59	0.085	.	100 g powder	
1	CTIF FB20-2	3.557	0.0614	.	100 g chips	
1	CTIF FB20-1	3.552	0.059	.	100 g chips	
1	<b>CZ 2020B</b>	3.52	0.043	.	200 g chips	<b>17034</b>
1	ECRM 485-3	3.514	0.1488	0.0081	100 g chips	
1	AR 306-817B	3.48	0.0202	.	150 g powder	
2	TH 1023-3	3.45	0.0048	.	100 g chips	
1	<b>CZ 2019B</b>	3.43	0.017	.	200 g chips	<b>17034</b>
2	TH 1050	3.424	0.143	.	100 g chips	
1	AR 310-120C	3.41	0.083	.	150 g chips	
2	HRT 530-033	3.33	0.011	.	150 g powder	
2	HRT 530-033A	3.33	0.011	.	1 kg powder	
1	AR 322-919A	3.32	0.034	.	250 g powder	
1	AR 302-620C	3.31	0.0203	.	150 g powder	
2	AR 300-1012A	3.26	0.021	.	150 g powder	
1	ECRM 492-1	3.258	0.0854	0.0048	100 g chips	
1	VS Ch22	3.16	0.106	.	100 g powder	
1	AR 315-220H	3.08	0.108	.	150 g powder	
1	<b>CZ 2018B</b>	3.07	0.014	.	200 g chips	<b>17034</b>
1	CTIF FB 13	2.959	0.0973	.	100 g chips	
1	AR 318-1015C	2.95	0.042	.	150 g powder	
1	VS Ch9/6	2.94	0.095	.	100 g powder	
1	NCS NS11060	2.93	0.101	.	50 g chips	
1	SRM 334	2.83	0.043	.	150 g chips	
1	<b>CZ 2017B</b>	2.57	0.095	.	200 g chips	<b>17034</b>
1	NCS NS13001	2.51	0.020	.	100 g chips	
2	CZ 2017A	2.463	0.0755	.	100 g chips	
1	<b>CZ 2016B</b>	2.15	0.0047	.	200 g chips	<b>17034</b>
1	CTIF FB20	2.114	0.128	.	100 g chips	
2	CZ 2016A	2.053	0.0048	.	100 g chips	
1	NCS NS16001	2.02	0.0014	.	100 g chips	last
1	AR 301-1018D	2.01	0.0172	.	150 g powder	
2	CZ 2015A	1.996	0.0157	.	100 g chips	
1	<b>CZ 2015B</b>	1.99	0.017	.	200 g chips	<b>17034</b>
1	NCS NS11059	1.95	0.143	.	50 g chips	
1	AR 299-614B	0.97	0.0102	.	150 g powder	
1	BS CE 216 *	.	0.043	.	150 g chips	* clearance sale
1	BS CE 219 *	.	0.038	.	150 g chips	* clearance sale
1	BS CE 217 *	.	0.029	.	150 g chips	* clearance sale
#	Number	C%	S%	N%	Units	Comment

## BRAMMER STANDARD ONLINE CATALOG-COMBUSTION MATERIALS

## S, O, N, H, C IN NON-FERROUS METALS

# = class, where 1 = CRM and 2 = RM

analysis listed in mg/kg

#	Number	Material	Carbon	Sulfur	Oxygen	Nitrogen	Hydrogen	Size & Form
1	AA Alu-H2	Aluminum	.	.	.	.	0.068	10 rods, 0.5" Ø x ~24"
1	58A CP54008	Copper	.	94	.	.	.	50 g chips
1	IMN Cu 90-1	Copper	.	83.7	.	.	.	250 g chips
1	58A CP54006	Copper	.	64	.	.	.	50 g chips
1	58A CP54005	Copper	.	53	.	.	.	50 g chips
1	IMN Cu 50-1	Copper	.	49.6	.	.	.	250 g chips last
1	58A CP54007	Copper	.	27	.	.	.	50 g chips
1	IMN Cu S-20	Copper	.	23.1	.	.	.	150 g chips
1	SRM 885	Copper	Ag:5	18	310	Pb:2	.	200 g of 1 g pins Trace As, Bi, Fe, Ni, Sb, Sn, and Zn
1	58A CP54004	Copper	.	13	.	.	.	50 g chips
1	AR 145-823M	Copper	.	8	187	.	.	100 g of 1 g pins
1	AR 146-322F	Copper	.	6	251	.	.	100 g of 1 g pins
1	AR 147-521L	Copper	.	5	3	.	.	454 g of 1 g pins
1	IMN CuS-L	Copper	.	4.24	.	.	.	150 g chips
1	VS 8-1	Copper	.	3.5	210	.	.	rod, 3 mm Ø x ~85 mm
1	IMN Cu 600	Copper	.	.	604	.	.	150 g of rod 5 mm Ø x 100 mm
1	IMN Cu 600/1	Copper	.	.	581	.	.	220 g of rods 6 mm Ø x 105 mm last
1	NCS NS11035	Copper	.	.	479	.	.	25 g of 1 g pins
1	BCR 058	Copper	.	.	390	.	.	rod, 7 mm Ø x 50 mm
2	BAM 379/3	Copper	.	.	378	.	.	disc, 40 mm Ø x 30 mm
1	NCS NS11038	Copper	.	.	376	.	.	25 g of 1 g pins
1	NCS NS11034	Copper	.	.	261	.	.	25 g of 1 g pins
2	BAM 379/2	Copper	.	.	212	.	.	disc, 40 mm Ø x 30 mm
1	NCS NS11036	Copper	.	.	208	.	.	25 g of 1 g pins last of stock
1	IMN Cu 200/4	Copper	.	.	195.6	.	.	180 g of rods 8 mm Ø x 100 mm
1	IMN Cu 100/5	Copper	.	.	163.7	.	.	200 g of rod 20 mm Ø x 100 mm
1	DSZU CA023	Copper	.	.	158	.	(2.1)	50 g of 0.5 g pins
1	BCR 022A	Copper	.	.	138	.	.	disc, 26 mm Ø x 9 mm
1	BCR 022B	Copper	.	.	138	.	.	rod, 9 mm Ø x 50 mm
1	NCS NS11033	Copper	.	.	135	.	.	25 g of 1 g pins
1	IMN Cu 100	Copper	.	.	123	.	.	150 g of rod 5 mm Ø x 100 mm
2	BAM 379/1	Copper	.	.	38	.	.	disc, 40 mm Ø x 30 mm
1	NCS NS11032	Copper	.	.	18	.	.	25 g of 1 g pins
1	NCS NS11031	Copper	.	.	10	.	.	25 g of 1 g pins
1	DSZU CA021	Copper	.	.	7.4	.	(1.9)	50 g of 1 g pins
1	IMN Cu 10/1	Copper	.	.	3.8	.	.	150 g of rod 6 mm Ø x 110 mm
1	NCS NS11030	Copper	.	.	2.8	.	.	rod, 6 mm Ø x 110 mm
1	IMN Cu 10	Copper	.	.	2.1	.	.	150 g of rod 5 mm Ø x 100 mm
1	BCR 054R	Copper	.	.	0.47	.	.	rod, 7 mm Ø x 50 mm
1	IMN Ni-2	Nickel	128	149	.	.	.	100 g chips last of stock
1	SRM 861	Nickel	.	0.561	.	.	.	50 g chips
1	58A HC51001	Nickel	.	.	20	51	.	20 g cube 4mm x 4mm x 5mm
1	58A HC52001	Nickel	.	.	10	6.3	.	20 g cube 4mm x 4mm x 5mm
1	IMN Ag10/1	Silver	.	.	11	.	.	2 rods, 6 mm Ø x 100 mm
1	BCR 275	Zircaloy-4	113	.	1670	39.0	.	10 pcs 13 mm Ø x 1 mm each
1	BCR 276	Zircaloy-4	108	.	1540	41	.	100 pcs 4.5 mm Ø x 2 mm each
1	AR 590-815C	Zirconium	160	.	.	79	10	25 g of 0.25 g pins
1	AR 630-231214	Zirconium	.	.	1420	79	26	10 g of 0.10 g pins

#	Number	Material	Carbon	Sulfur	Oxygen	Nitrogen	Hydrogen	Size & Form
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**CRM COPPER PINS** analysis listed in mg/kg 50g of 0.31g pins

Number	Ag	As	Bi	Cd	Co	Cr	Fe	Mn	Ni	Pb	S	Sb	Se	Sn	Te	Zn
IMN 001	27.1	3.13	1.39	(0.11)	2.09	3.53	13.9	5.16	3.64	4.02	5.99	2.4	1.34	3.39	1.23	4.57

**RM PURITY NICKEL POWDER**

certified analysis listed in mg/kg, no uncertainties

informational values

100 g units

Number	Al	C	Cr	Cu	Fe	Mn	Mo	O	P	Pb	S	Si	Ag	As	B	Ba	Be	Bi	Ca	Cd	Co	Ga	H	In	Mg	N	Na	Sb	Se	Sn	Te	Ti	Tl	V	Zn
BS HPN-1	70	268	22	2	202	2	3	1850	5	0.2	4	6	<0.1	<0.5	<2	<1	<1	<0.2	3	<0.1	<2	<0.5	99	<0.2	1	27	4	<0.1	<0.2	<1	<0.2	<1	<0.1	<1	<1

**CRM TITANIUM**analysis listed in mass % **17034**

Number	H	C	N	O	S	Units
AR 592-616A	0.0290	0.0072	.	.	.	25 g of 0.25 g pins
NCS NS11093	0.027	.	0.0097	0.144	.	5 Rods 2 x 2 x 120 mm
SRM 2454	0.0211	.	.	.	.	10 g chips
AR 589-519B	0.0207	0.0083	.	.	.	25 g of 0.25 g pins
AR 649-621T	0.0197	.	0.0065	0.125	.	10 g of 0.1 g pins
AR 648-721Y	0.0169	.	0.0058	0.119	.	10 g of 0.1 g pins
SRM 2453a	0.01268	.	.	.	.	10 g of 0.1 g pins
AR 647-220G	0.0122	.	0.0039	0.111	.	10 g of 0.1 g pins
NCS NS11091	0.012	.	0.0095	0.070	.	5 Rods 2 x 2 x 120 mm
AR 588-121B	0.0149	0.008	.	.	.	25 g of 0.25 g pins
SRM 2453	0.0114	.	.	.	.	10 g chips last
AR 587-619A	0.0099	0.008	.	.	.	25 g of 0.25 g pins
NCS NS11092	0.0097	.	0.030	0.130	.	5 Rods 2 x 2 x 120 mm
AR 650-520X	0.0090	.	0.0060	0.100	.	10 g of 0.1 g pins
AR 585-1021P	0.0081	0.007	.	.	.	25 g of 0.25 g pins
VS 1-2	0.0070	.	0.0037	0.081	.	11 g of 0.1 g pins
SRM 2452	0.00559	.	.	.	.	10 g chips
AR 582-319A	0.0052	0.025	.	.	.	25 g of 0.25 g pins
AR 642-521N	0.0052	.	0.0182	0.151	.	10 g of 0.1 g pins
<b>BS 10-2-3</b>	0.0047	0.032	0.0055	0.108	0.0012	Disc 46 mm Ø x ~7 or 19+ mm
DSZU CA017	0.0039	.	0.0061	0.151	.	10 g of 0.1 g pins
AR 635-1221V	0.0036	.	0.0143	0.145	.	10 g of 0.1 g pins
NCS NS11107	0.0035	.	0.018	0.113	.	100 x 0.15 g pins
AR 651-621R	0.0022	.	0.0071	0.130	.	10 g of 0.1 g pins
<b>BS T-4B</b>	0.0020	(0.03)	0.006	0.37	0.0005	Disc 38 mm Ø x ~7 or 19+ mm
<b>BS T-5B</b>	0.0019	0.053	0.026	0.162	0.0009	Disc 38 mm Ø x ~7 or 19+ mm
AR 586-120D	0.0019	0.020	.	.	.	25 g of 0.25 g pins
DSZU CA016A	0.0018	.	0.007	0.070	.	10 g of 0.1 g pins
IARM 300A	0.0018	0.007	0.0033	0.162	0.0008	65 g chips
NCS NS11090	0.0017	.	0.0034	0.285	.	5 Rods 2 x 2 x 120 mm
DSZU CA018A	0.0016	.	0.013	0.051	.	10 g of 0.1 g pins
DSZU CA019	0.0016	.	0.010	0.24	.	10 g of 0.1 g pins
AR 631-123c	0.0016	.	0.0076	0.389	.	10 g of 0.1 g pins
DSZU CA016B	0.0016	.	0.0039	0.060	.	10 g of 0.1 g pins
TL 3100 (RM)	0.0015	.	(0.005)	(0.055)	.	10 g of 0.1 g pins
NCS NS11089	0.0014	.	0.0050	0.045	.	5 Rods 2 x 2 x 120 mm
NCS NS11108	0.0014	.	0.0030	0.099	.	100 x 0.15 g pins
TL 3101	0.00127	.	0.0039	0.1721	.	50 x 0.17 g discs
VS 1-1	0.0007	.	0.005	0.096	.	11 g of 0.1 g pins
AR 641-1021L	0.0003	.	0.0272	0.179	.	10 g of 0.1 g pins
IARM 261C	0.001	0.011	0.005	0.085	(0.001)	65 g chips
IARM 261B	(0.001)	0.011	0.004	0.083	(0.0004)	65 g chips
IARM 261E	(0.0005)	0.012	0.006	0.084	(0.001)	65 g chips
IARM 261D	(0.0005)	0.011	0.0051	0.083	(0.001)	65 g chips
BCR 059B	.	.	0.0172	0.1750	.	25 units of 0.2 g cubes
BCR 059A	.	.	0.0172	0.1750	.	disc, 26 mm Ø x 9 mm
58A HC53003	.	.	0.014	0.124	.	~10 g rods 3 pcs 1.5 x 100 mm
BCR 024B	.	.	0.0117	0.0608	.	25 0.4 g cubes
BCR 024C	.	.	0.0117	0.0608	.	25 0.2 g cubes
BELOW ITEMS ARE SET ONLY, AS GROUPED						
NCS NS20043-4	0.00295	.	0.0089	0.16	.	Rod 100 x 3 x 2 mm
NCS NS20043-1	0.0018	.	0.014	0.18	.	Rod 100 x 3 x 2 mm
NCS NS20043-2	0.0014	.	0.018	0.31	.	Rod 100 x 3 x 2 mm
NCS NS20043-3	0.0010	.	0.0093	0.13	.	Rod 100 x 3 x 2 mm

Number	H	C	N	O	S	Units
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**CRM REFRACTORY SET**

available in set/6 only

Number	S	Units
JRRM 1101	0.106	40 g
JRRM 1102	0.293	40 g
JRRM 1103	1.02	40 g
JRRM 1104	1.48	40 g
JRRM 1105	2.89	40 g
JRRM 1106	4.93	40 g

## ORGANIC COMBUSTION SAMPLES

listed in mass %

#	Part Number	Material	Units	C	S	O	N	H	
2	501-441	Sucrose	50 g	42.10	.	51.42	.	6.48	last
1	AR 2092	EDTA	50 g	41.10	.	43.79	9.59	5.52	
2	AR 4012-622Q	Ore	25 g	12.02	0.033	.	.	.	
2	AR 4023-100902	Ore	25 g	11.70	0.220	.	.	.	
2	AR 4024-920G	Ore	25 g	11.59	0.40	.	.	.	
2	AR 4007-721X	Ore	30 g	7.58	3.27	.	.	.	
2	AR 4022-519E	Ore	25 g	7.15	0.052	.	.	.	
2	AR 4014-42899	Ore	25 g	5.87	0.029	.	.	.	
2	AR 4006-821b	Ore	30 g	4.08	3.95	.	.	.	
2	JSM M454-1	Grain	150 g	3.73	0.0298	.	.	.	
2	JSM M453-1	Grain	150 g	3.20	0.0136	.	.	.	
1	AR 4021-814A	Soil	100 g	3.04	0.032	.	.	.	
2	JSM M452-1	Grain	150 g	2.78	0.0110	.	.	.	
2	AR 4016-320Q	Soil	25 g	2.05	2.05	.	.	.	
2	AR 4005-321E	Ore	30 g	1.43	1.45	.	.	.	
2	AR 4018-619H	Soil	25 g	1.18	1.03	.	.	.	
2	JSM M451-1	Grain	150 g	0.93	0.0096	.	.	.	
2	AR 4017-420R	Soil	25 g	0.49	0.48	.	.	.	
1	JK 47A	Iron Ore	35 g	0.370	(0.009)	0.69	0.0062	.	

## INORGANIC MATERIALS

# = class, where 1 = CRM and 2 = RM analysis listed in mass % except \* which is mg/kg (ppm)

#	Number	Material and Units	C	S	O	N	Hg*	Heat
1	AR 2029	Graphite powder 50g	99.99	.	.	.	.	.
1	AR 307-518C	Tungsten Carbide powder 100g	6.17	0.0050	.	.	.	.
1	NCS NS51001a	Tungsten Carbide powder 100g	6.118	.	.	.	.	.
1	AR 6123-319E	Carbon powder 25g	H:0.300	.	.	.	.	.
1	AR 6122-319D	Carbon powder 25g	H:0.205	.	.	.	.	.
1	AR 6121-319C	Carbon powder 25g	H:0.105	.	.	.	.	.
1	BCR 102	Tungsten Carbide 2 to 3 grams	.	.	0.0185	.	.	.
1	COCO BA001	Benzoic Acid 100g of 1g tablets	.	.	.	.	26,450 J and 11,371 BTU	.
1	SABS CRM100	Benzoic Acid 100g of 1g tablets	.	.	.	.	.	26,448.0 J
2	BCS 190v	Benzoic Acid 100g of 1g tablets	.	.	.	.	.	26,443.2 J
2	BCS 190t	Benzoic Acid 100g crystals	.	.	.	.	.	26,439.7 J
2	BCS 190t tabs	Benzoic Acid 20g of 0.2g tablets	.	.	.	.	.	26,439.7 J
1	SRM 39J	Benzoic Acid 30g powder	.	.	.	.	.	26,434 J