Supplementary Information for
Thermal metamorphic history of Antarctic CV3 and CO3 chondrites inferred from the first and second order Raman peaks of polyaromatic organic carbon.

Yesiltas et al. 2020

Table S1. Studied meteorites, their information and spectral peak parameters, calculated metamorphic temperatures.

	Samples	Type	Number of spectra	Γ_D (cm^{-1})	ω_D (cm^{-1})	Γ_G (cm^{-1})	ω_G (cm^{-1})	I_D/I_G	Γ_{2D} (cm^{-1})	Γ_{D+G} (cm^{-1})	I_{2D}/I_{D+G}
	CV chondrites										
1	ALH 85006	$CV3_{oxB}$	200	111.17± 6.26	1343.96± 1.36	48.36± 2.3	1605.52± 1.03	0.979± 0.05	269.30	122.50	0.94
2	MET 00430	$CV3_{oxB}$	201	113.94± 10.8	1344.49± 2.07	55.45± 5.59	1601.92± 7.5	1.042± 0.08	224.88	162.60	0.95
3	LAR 06317	$CV3_{oxA}$	292	115.34± 10.87	1347.81± 1.41	52.47± 3.87	1608.07± 8.33	1.047± 0.07	222.33	141.72	0.96
4	DOM 10351	CV3 - ?	297	112.52± 10.22	1350.55± 1.15	58.37± 2.3	1604.17± 1.31	1.110± 0.08	239.45	159.07	1.12
5	MCY 05219	$CV3_{oxB}$	245	101.56± 8.73	1348.85± 1.7	55.51± 3.54	1605.73± 1.54	1.222± 0.07	202.95	134.75	0.93
6	MIL 13328	CV3 - ?	272	110.28± 16.26	1353.17± 1.56	66.76± 4.17	1603.24± 1.42	1.222± 0.09	253.89	143.67	1.60
7	QUE 93744	CV3 - ?	248	105.68± 6.14	1350.8±1 .35	69.32± 4.18	1602.76± 1.38	1.297± 0.06	163.74	112.84	1.30
8	LAP 02228	$CV3_{oxA}$	238	79.34±9 .22	1354.41± 1.35	61.69± 5.71	1603.83± 2.31	1.448± 0.09	94.11	81.80	3.05
9	LAP 02206	$CV3_{oxA}$	216	66.94±5 .23	1350.48± 1.47	58.91± 5.25	1600.36± 1.99	1.509± 0.11	102.43	85.07	2.42
10	MIL 07681	$CV3_{red}$	223	65.64±6 .43	1352.14± 1.5	59.18± 5.24	1601.73± 2.65	1.565± 0.12	83.02	91.45	3.95
11	LAR 12002	CV3 - ?	200	64.69±1 0.27	1359.23± 2.18	60.51± 5.6	1603.08± 3.35	1.252± 0.12	79.70	79.81	8.50
12	GRA 06101	$CV3_{oxA}$	232	65.27±7	1348.89±	59.65±	1598.54±	1.515±	82.39	48.35	2.60

				.88	1.3	5.01	2.07	0.1			
	CO chondrites										
1	DOM 08006	CO3.0	249	251.92± 21.26	1360.64± 3.46	69.44± 7.06	1602.03± 5.66	0.774± 0.08	281.18	147.32	1.91
2	MIL090152	CO3?	234	233.71± 26.04	1351.24± 4.54	94.01± 11.13	1585.81± 5.33	0.955± 0.07	359.00	197.53	1.82
3	MIL 090128	CO3.0-3.2	208	231.16± 30.11	1348.41± 3.13	81.25± 11.32	1593.39± 6.7	0.980± 0.05	345.30	195.85	1.76
4	MIL 11213	CO3?	221	225.95± 14.41	1352.24± 3.02	89.98± 6.63	1585.84± 4.16	9.35±0. 03	259.71	194.10	1.34
5	MIL 07193	CO3.1	200	179.11± 11.62	1346.18± 2.43	64.37± 4.74	1601.36± 2.64	0.927± 0.04	322.05	133.13	2.42
6	MIL 05024	CO3.1	487	174.38± 22.09	1344.67± 4.89	67.2±8. 92	1594.73± 5.13	0.972± 0.11	252.86	130.10	1.94
7	MIL 090010	CO3.1	575	166.7±2 7.85	1343.44± 7.77	63.56± 15.66	1596.91± 6.4	1.043± 0.19	201.47	213.87	0.94
8	DOM 10104	CO3.2	535	193.39± 34.35	1346.42± 12.83	72.18± 27.27	1592.63± 10.67	1.009± 0.18	188.91	171.60	1.10
9	MIL 07346	CO3.2	222	161.98± 14.23	1349.35± 2.57	60.03± 6.15	1607.48± 2.46	0.882± 0.06	239.29	222.76	1.07
10	ALH 82101	CO3.4	254	99.13±1 0.86	1350.55± 1.4	61.35± 4.65	1605.08± 1.77	1.169± 0.11	124.49	87.88	1.42
11	ALH 83108	CO3.5	209	105.71± 18.42	1350.22± 0.67	69.22± 5.62	1597.01± 3.43	1.237± 0.12	122.38	124.27	0.98
12	ALHA77003	CO3.6	251	99.47±7 .23	1345.72± 1.29	72.65± 5.41	1597.36± 3.13	1.344± 0.07	181.26	135.92	1.33

The numbers in the first column denote sample number in the legends of figures. Γ = full width half maxima, ω = peak position, I = Raman peak intensity, PMT = peak metamorphic temperature. The first order spectral peak parameters were extracted using WiTec Project 4-PLUS software package. The second order peak parameters were extracted using Origin PRO software package.

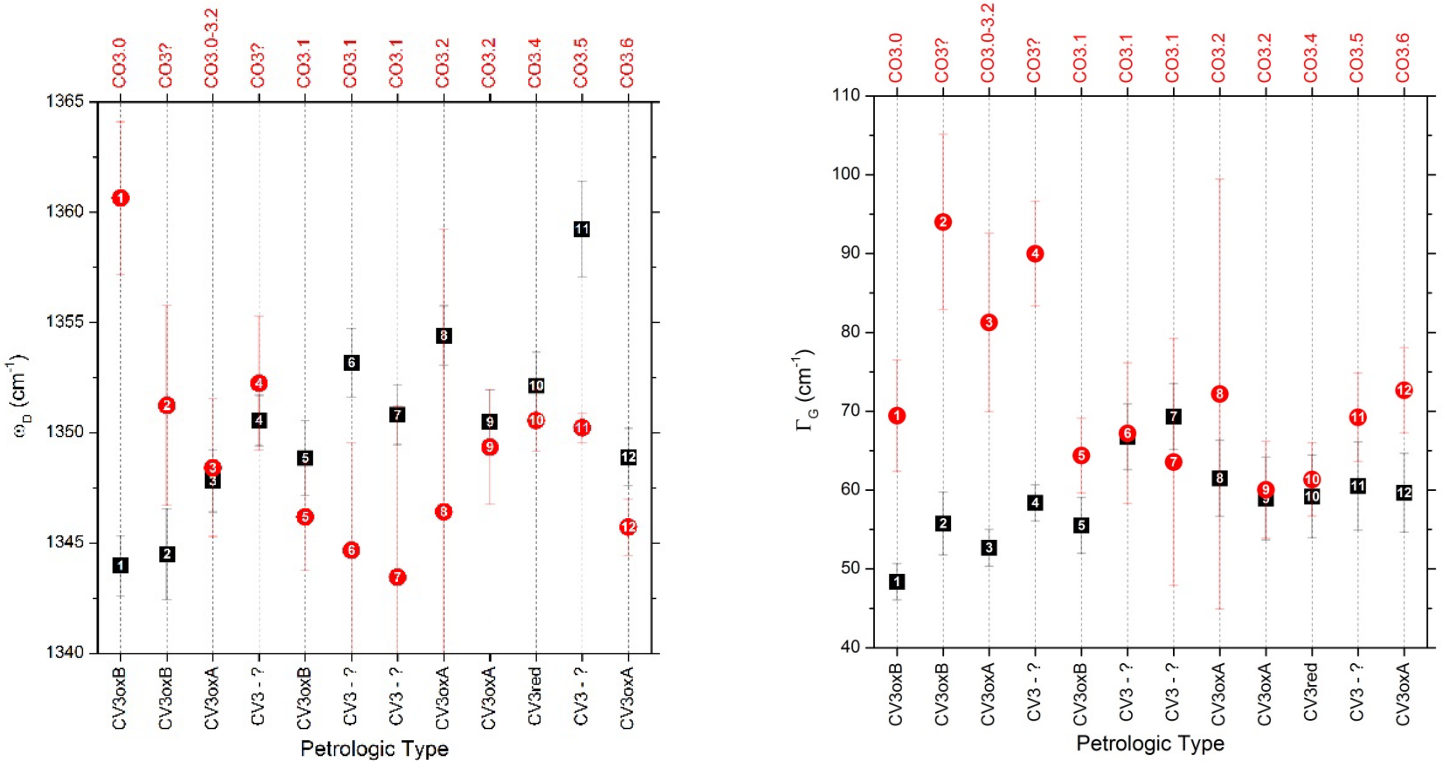

Figure S1. Petrologic types of the studied meteorites vs. position of the D band (left) and width of the G band (right).

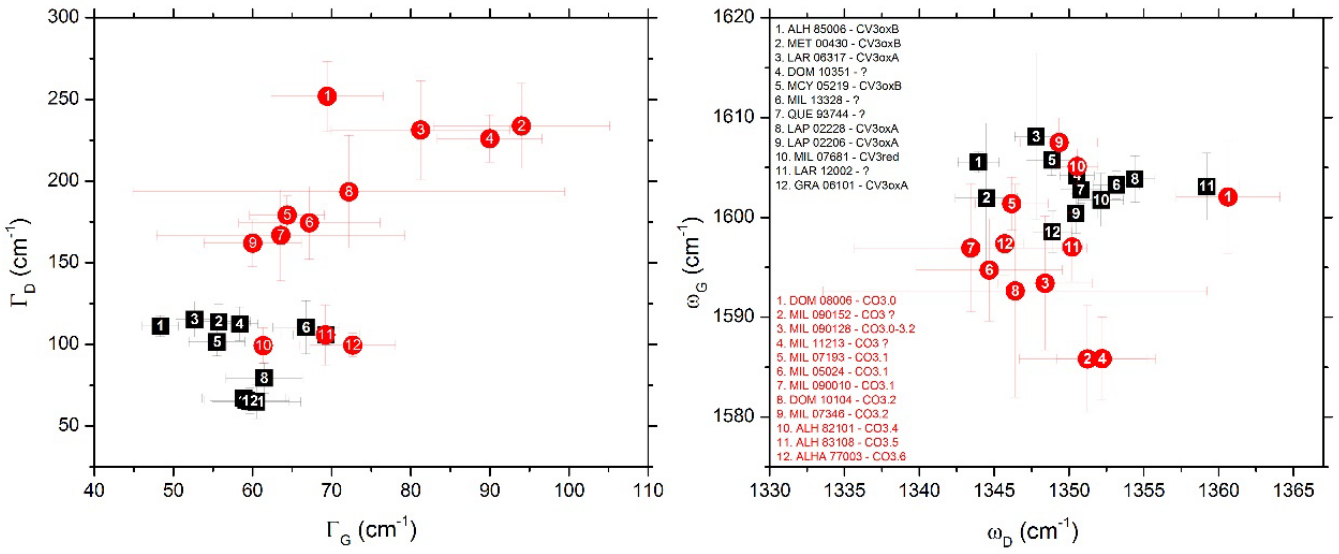

Figure S2. Comparison of widths (left) and positions (right) of the first order D and G bands for the investigated samples.