

Supplementary Materials

A Review of the Melting Curves of Transition Metals at High Pressures Using Static Compression Techniques

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Table S1. Spreadsheets for all the data of Figure 1a. Only in situ XRD data are shown (i.e., not off-line obtained melting).

Mo [15]		Au [77]		Fe [24]		Nb [83]	
P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)
23.8	3339	4.8	1528	54.5	3071	7.8	2959
27.2	3392	12	1778	65.2	3195	21.8	3202
28.9	3462	19.2	1997	77.0	3424	26	3299
34.9	3480	23.7	2127	86.1	3584	37.8	3454
42.55	3603	34.2	2426	100.3	3743	49.7	3649
45.1	3656	35.4	2586	115.7	3876	58.0	3804
51.9	3744	36.6	2605	128.4	4018	117.1	4912
65.5	3920	44.1	2765	133.5	4186		
84.2	4150	45.9	2755	135.9	4160		
129.4	4520	46.5	2835	158.0	4372		
		51.6	3025				
		53.1	2905				
		64.2	3224				
		77.7	3594				
		85.8	3716				
		108.3	4332				

Pt [63]		Ni [84]		Ta [22]		Ti [36]	
P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)
18.6	2678	44.6	2632	54.1	40.26	47.1	2618
27.9	3263	45.7	28.23	56.1	4641	63.3	2581
39.5	3497	68.0	3479	59.5	4282	67.3	2663
48.8	3708	77.1	3687	81.8	4615	68.3	2670
				85.8	4667	71.9	2730
				90.4	4897	75.9	2805
				114.19	5256		
				114.9	5718		
				125.7	5513		

V [35]		Zr [37]					
P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)
29.5	2712	28.2	2809				
42.9	3250	37.2	3095				
47.2	3308	49.1	3250				
55.0	2403	52.8	3370				
63.7	3769	65.2	3620				
77.1	3750	80.0	3809				
88.4	4058						
102.7	4154						

Table S2. Spreadsheets for all the data of Figure 1b. Only in situ measurements are shown.

Ni [13]	Co [13]	Ti [13]	V [13]
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P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)
25.8	2139	15.1	2047	14	2064	10.9	2310
34.12	2214	16.0	2039	16.4	2029	14.6	2281
35.0	2226	19.6	2082	17.1	2088	16.1	2298
39.8	2290	28.8	2134	24.8	2099	16.8	2275
42.4	2242	44.8	2286	33.9	2164	19.9	2363
45.4	2246	53.1	2465	40.68	2228	21.1	2474
49.9	2370	58.8	2553	47.52	2240	24.2	2462
51.0	2374			54.66	2310	24.5	2327
53.1	2382			62.42	2298	26.31	2491
57.9	2398			72.0	2310	27.9	2439
				79.8	2333	29.2	2526
						30.7	2439
						33.9	2479
						33.9	2509
						39.1	2439
						39.8	2526
						43.5	2526
						45.7	2474
						48.8	2567
						54.6	2550
						59.6	2591
						63.4	2655
						65.5	2591
						72.0	2661
						80.7	2696

Mo [13]		Ta [13]		W [13]		Pt [40]	
P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)
18.9	3012	9.9	3345	12.1	3778	4.9	2244
28.3	3058	14.0	3439	15.2	3772	7.5	2357
32.3	3082	16.8	3485	18.3	3743	9.3	2429
42.5	3105	22.0	3520	21.7	3749	11.5	2512
47.8	3105	25.8	3509	25.8	3836	12.7	2560
50.9	3135	26.4	35.2	28.6	3848	15.1	2649
54.3	3053	27.0	3561	31.1	3871	17.3	2726
55.3	3099	30.1	3556	35.4	3883	21.4	2863
58.4	3135	33.3	3556	37.6	3901	24.2	2952
59.9	3082	35.7	3596	44.1	3936	27.8	3095
62.4	3123	37.9	3620	50	3918		
64.3	3058	45.9	3626	56.8	3889		
65.2	3058	49.1	3591	65.2	3918		
66.1	3111	54.7	3679	70.8	3953		
70.5	3082	64.3	3632	80.1	3930		
73.3	3123	65.8	3691	86.3	3988		
76.7	3099	75.8	3661	91.3	3942		
84.8	3211	82.6	3696				
86.0	3129	90.4	3684				
89.8	3140						

Fe [14]							
P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)	P (GPa)	T _m (K)
31.7	2430						
36.8	2535						
37.3	2441						
1.9	2535						
55.0	2535						
74.5	2734						
84.3	2766						
96.9	2861						
106.7	2913						
113.2	2945						
115.5	3071						
122.5	3102						
126.7	3018						
128.1	3218						
133.7	3144						
137.9	3060						
139.8	3186						
143.8	3218						
146.3	3396						
149.5	3323						
153.7	3438						
156.5	3333						
159.3	3772						
162.1	3512						
167.2	3396						
178.9	3659						
185.4	3795						
194.7	3743						
198.0	3816						