

APPARATUS	YEAR	AUTHORS	REF.	PRESSURE TRANSITION IN KILOBARS								
				Bi I-II	Bi II-III	Tl II-III	Ea II-III	Yb	Bi III-V	Sn I-II	Fe α -E	Ba
Piston-cylinder	1941	BRIDGMAN	1	25		39,2 /	58,8 /	-	88,2 /	-	-	-
	1942	-in volume change (vol)				40	60		90			
Bridgman's anvil	1952	BRIDGMAN-by resistance (res)	2	25,65	27,08	45	78,4 / /80	58,8		no data below 100 kbar		
Shock	1956	BANCROFT & al	5									131
Belt	1958	BUNDY (res)	17	25,65	27,08	45	78,4 / /80	58,8	122,5	114	-	-
Shock	1960	BOY & ENGLAND (res)	14	25,2		37,1						
Drickamer's anvil	1961	BALCHAN & DRICKAMER (res)	4	-	-	-	59 ± 1	-	90 ± 2	-	133	144
Piston-cylinder	1962	KENNEDY - LA MORI (vol)	3	25,38 ±0,02	26,96 ±0,18	36,7 ± 0,1	59,6 ± 1	-	-	-	±1,5%	-
Drickamer's anvil	1962	BALCHAN & DRICKAMER (res)	9									
Piston-cylinder	1963	KLEMENT-JAYARAMAN-KENNEDY	10							113 / 115		
Tetrahedral press	1963	HALL & MERRILL (res)	18					39,5	~78			
Bridgman's anvil	1964	STARK & JURA	6						81 ± 4	99 ± 4	118 ± 6	
Bridgman's anvil	1964	STROMBERG & al	24							107		
Piston-cylinder	1965	ROUX	21	25,5 ±0,15	27,6 ±0,15	36,8 ±0,6						
Tetrahedral press	1965	JEFFERY (vol) (res)	8	↑ 25,0 ↓ ±0,5	↑ 28,0 ↓ ±0,6	↑ 35,6 ↑ ±1,3	↑ 54,5 ↑ ±1,5	↑ 38,1 ↑ ±1,3	↑ 76,5 ↑ ±2	↑ 92 ↑ ±3,5	-	-
Cubic press	1965	GIARDINI & SAMARA (ind.vol)	19						81-82			
Tetrahedral press	1966	JEFFERY (res) BARNETT - sheet VAN FLEET - wire HALL	11	↑ 26,2 ↑ ±0,8	↑ 29,1 ↑ ±0,8							
				↑ 26,5 ↑ ±1,3	29,7 ±1,4	35,4 ±2,1	↑ 54,6 ↑ ±0,9	↑ 38,2 ↑ ±1,5	↑ 75,7 ↑ ±1,3	↑ 92 ↑ ±3		
Piston gauge	1966	VERESHCHAGIN, ZUBOVA & al	13	25,4 1%	26,9 1%	36,9 1%	53,5 1%		89,3 1%			
Dead-weight piston gauge	1967	HEYDEMANN (vol)	20	{ 25,48 25,50	±0,06	according to grain size and purity						
Piston-cylinder	1967	KENNEDY & al	29				55,0 ±0,5					

TABLE 1 - PRESSURE TRANSITION DATA

tencies of the main pressure scales in the particular case of an apparatus called "X type anvil", and to suggest possible values for the transition pressures of Bismuth 3 - 5, of Tin and Iron. The four most widely used pressure scales, called A, B, C, D, (table 2) have been chosen so as to be compared. Making the assumption that the transition pressures below 60 kbar are accurate, a linear extrapolation reveals a few inconsistencies. From the piston displacement recording, an analytical expression of the calibration curve is then derived. It is thus possible to evaluate the higher transition pressures.

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