

- TABLE 2 -

- PRESSURE SCALES -

REF	YEAR	AUTHORS	PRESSURE TRANSITION IN KILOBARS						
			Bi I-II	Bi II-III	Tl II-III	Ba II-III	Bi VI-VIII	Sn 1-2	Fe
A	1962	BRIDGMAN	25,4	26,8	36,7	58,5	89	113/	133
		KENNEDY-LA-MORI						115	
		BALCHAN-DRICKAMER	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,6$	± 1		
B	1965	STARK	25,4	26,8	36,7	59	81	107	133
		JURA - STROMBERG							
	1966		$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	± 1	± 4	± 4	
C	1965	JEFFERY BARNETT HALL	25,0		35,6	54,5	76,5	92	
D	1967	VERESHCHAGIN & al	25,4		36,9	58,5	89,3		
			$\pm 1 \%$		$\pm 1 \%$	$\pm 1 \%$	$\pm 1 \%$		

The apparatus called "X type anvil" has already been described (31) (32) (35) and first presented at the Eindhoven meeting of the European High Pressure Research Group (1966). It consists of a die and of pistons with a special shape as shown on figure 1. It allows to build, inside a volume which is identical to that of a "belt", higher pressures without damage. The cell body is made of pyrophyllite and the gaskets are of a mixed type, that is to say they consist of a pyrophyllite ring and of a teflon ring (figure 1).

The experiments have been carried out by recording simultaneously the resistance of two reference metal samples at room temperature. This procedure eliminates the lack of reproductibility of the calibration curve. The specimens located side by side, at 1 mm from each other, inside a teflon cylinder ($\phi = 4$ mm $h=3$ mm) which was in the center of the cell. (figure 2). The metal samples were 0,5 mm in diameter and 4 mm long wires. The electrical connections were established between the pistons and the chamber. The chemical analysis of the samples is given in table 3.

At the same time that the resistance changes were recorded, the displacements of the pistons towards each other were measured, making use of 4 dial gages located at 90° angle around the high pressure apparatus (figure 3). All the measurements have been carried out during the first increase in pressure run and the loads have been measured with strain gage dynamometer.