

Fig. 3.—Flowsheet of the high-pressure system.

a 10,000 atm gauge made and calibrated by the Budenberg Gauge Co. For convenience in comparing with existing data, experimental pressures are given in kg cm<sup>-2</sup> as used by Bridgman (1 kg cm<sup>-2</sup> = 0.981 bar). Measurements on the high-pressure gauge were converted using 1 atm = 1.033 kg cm<sup>-2</sup> and on the low pressure gauge by 1 psia = 0.0703 kg cm<sup>-2</sup>. As our pressure measurements are no better than  $\pm 1$  %, 1 kg cm<sup>-2</sup> can be effectively read as 1 bar.

## ELECTRICAL SYSTEM

Fig. 4 is a block diagram of the electronics measuring system. The crystal was connected as one arm of a Wayne-Kerr B 601 resistance-capacitance bridge driven by a Schlumberger FS1 digital signal generator with a stability of 1 part in 10<sup>8</sup> and incremental tuning of 0.01 Hz.

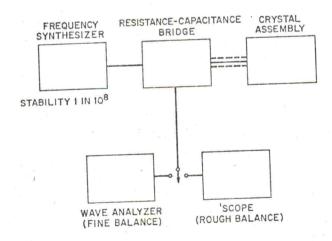


Fig. 4.—Block diagram of electronics for torsional crystal viscosity measurements.