

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^{-2} as used by Bridgman ($1 \text{ kg cm}^{-2} = 0.981 \text{ bar}$). Measurements on the high-pressure gauge were converted using $1 \text{ atm} = 1.033 \text{ kg cm}^{-2}$ and on the low pressure gauge by $1 \text{ psia} = 0.0703 \text{ kg cm}^{-2}$. As our pressure measurements are no better than $\pm 1\%$, 1 kg cm^{-2} 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 10^8 and incremental tuning of 0.01 Hz.

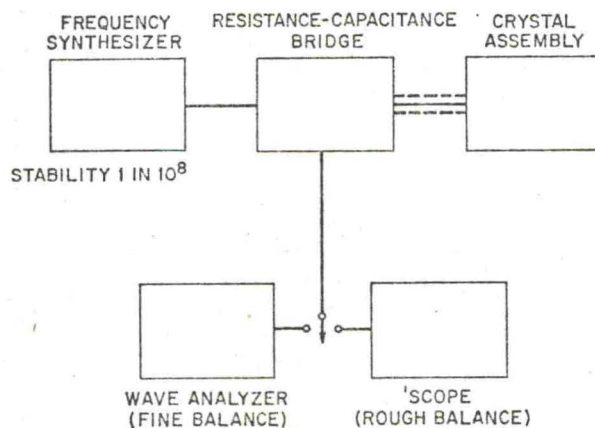


FIG. 4.—Block diagram of electronics for torsional crystal viscosity measurements.