electrodes (eqn. (1) gives 0·51 μsec). It seems clear therefore that the first pulse was caused by the arrival of the shocks at the edges of the electrodes and the second by the collision of the shocks in the centre. The presence of the step in the first pulse in fig. 3, at t_2, probably means that one wave reached the electrodes

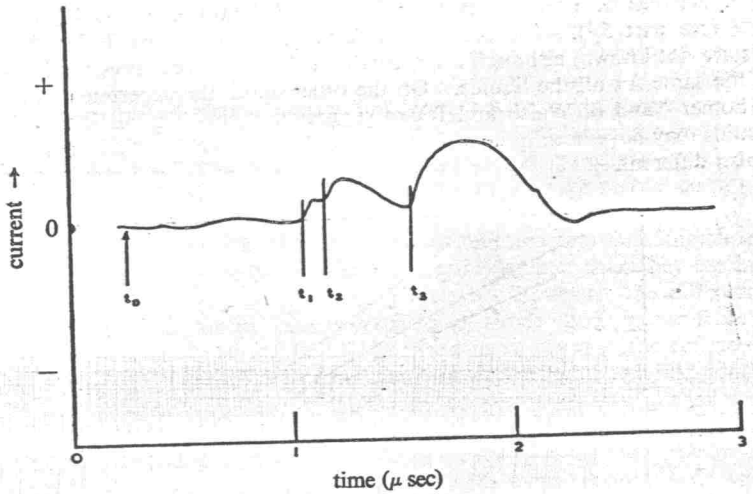

FIG. 3.—An oscillogram showing the change in conductivity of water during the collision of two shocks.

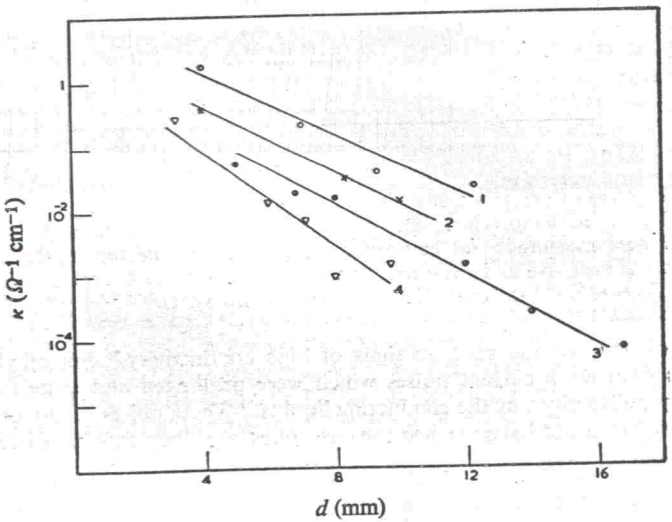

FIG. 4.—The conductivities of various liquids compressed by single shock waves (method (*a*)). The liquids are: 1, acetic acid; 2, propionic acid; 3, 1 : 1 (vol.) water/ethyl alcohol; 4, methyl alcohol. The distances d were measured between the top of the explosive charge and the top of the electrodes.[1] The initial temperatures and pressures were about 30°C and 1 atm.

slightly before the other, but the differences in their times of arrival was quite small (about 0·1 μsec). We calculated the conductivity in the region of shock interaction from the height of the second pulse, assuming the effective thickness of the compressed region to be 2 mm (as suggested by the duration of the pulse).