Sir Arthur Schuster, F.R.S.

ARTHUR SCHUSTER was born in Frankfurt-on-Main on September 12, 1851, of a wealthy banking family, but emigrated to Manchester with his parents in boyhood. He remained closely connected with Manchester throughout most of his active life, for he occupied first a chair in applied mathematics from 1881 to 1888, and then succeeded Balfour Stewart as Professor of Physics, holding this chair till he retired in 1907. This was the period during which the English provincial universities were expanding, and Schuster took an important part in the development.

Schuster's chief period of scientific activity fell in the interregnum between the older discoveries of the era of Maxwell and the newer of radioactivity and the electron. This was a curiously stagnant period in the history of physics, and, though he made many fine contributions to knowledge, there is no great discovery to his name; yet the record of his work shows that he was definitely a precursor of the new physics rather than an elaborator of the old. Perhaps his most noteworthy feat was to have made the first determination of that important physical quantity e/m; but the time was not ripe and he explained away the result he obtained, making it plausible to believe that the m was the mass of an atom, instead of the much more startling value thousands of times lighter, the mass of the electron. He also had a great interest in geophysics, and made important studies in meteorology and terrestrial magnetism. In this connection he was closely connected with the establishment of the Eskdalemuir Observatory.

He was elected an Honorary Fellow of the Society in 1916, and died on October 14, 1934. (See *Obituary Notices of Fellows of the Royal Society*, No. 3, December 1934.)

C. G. D.