Donnan, Frederick George 1870 - 1956

DEGREE: PhD DATE: 1896 PLACE: Leipzig
TEACHER/RESEARCH ADVISOR: Ostwald

first to elucidate the effect of semi-permeable membranes on ionic equilibria and osmotic pressure; studied colloids and soap solutions, showing that the efficiency of hydroxyl ions in the emulsification of oils depended on the formation of soaps on the surface of the drops; studied the effects of the sodium salts of the straight chain acids on the oil-water interface; studied the rates of effusion of some of the rare gases, the surface energies and densities of a number of liquified gases, the rates of reaction of the alkyl iodides with silver nitrate, the solubility of oxygen in silver, and the colors of the salts of cobalt, iron, and copper from the standpoint of electroaffinity; investigated manufacture of synthetic ammonia and nitric acid.