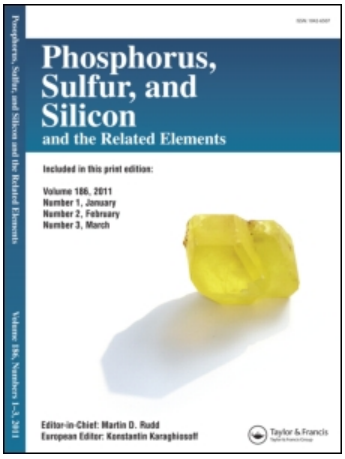

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THE REACTIONS OF SOME 2-NITROPHENYL SULPHIDES IN 98% SULPHURIC ACID

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THE REACTIONS OF SOME 2-NITROPHENYL SULPHIDES IN 98% SULPHURIC ACID

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The coloured solutions of 2-nitrobenzenesulphenyl derivatives in 98% sulphuric acid have previously been suggested to contain either the conjugate acid of the sulphenyl derivative[1] or the sulphenium ion in equilibrium with the starting material. ^{19}F n.m.r. studies on solutions of 4-trifluoromethyl-2-nitrobenzenesulphenyl derivatives show that these compounds react in sulphuric acid to give the corresponding 2-amino- and 2-nitro-benzenesulphonic acids together with other products.

Ethyl and methyl 4-trifluoromethyl-2-nitrophenyl sulphides also give coloured solutions in 98% sulphuric acid and the sulphur atom is also oxidised, but only to the corresponding nitro-sulphoxides. A variety of other products are formed in which the nitro-groups have been reduced. In contrast the corresponding t-butyl and benzyl sulphides give the corresponding disulphide in good yields.

The nature of these solutions and the mechanisms of the reactions will be discussed.

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