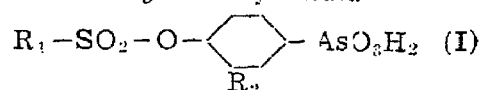


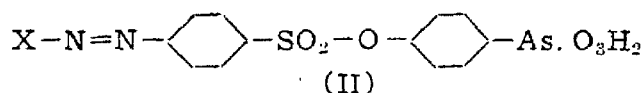
lene-sulphonyl chlorides on 4-hydroxy-, 3-nitro-4-hydroxy- and 3-acetamino-4-hydroxy-phenyl arsonic acids and characterised. The reactions were conducted in sodium carbonate solution either at ordinary temperature or at 80° C., the products isolated by acidification and purified by crystallisation from organic solvents. Compounds 2, 6, 10, 13, 14 and 18 were prepared by hydrolysing the corresponding acetamino products with acid. Long after our work was completed, Fox³ has recently reported the preparation of 3-amino-4-[(p-acetamino)- and (p-amino)-benzenesulphonyl-oxy] phenyl arsonic acids.

TABLE I
Melting points of the synthesised compounds of the general formula



	R ₁	R ₂	M.P. °C
1	C ₆ H ₅	H	170-72
2	"	NH ₂	195-97
3	"	NHAc	190-93
4	p-CH ₃ -C ₆ H ₄	H	265-7 (d)
5	"	NHAc	203-5 (d)
6	"	NH ₂	180-90 (d)
7	p-Cl-C ₆ H ₄	H	above 250
8	"	NO ₂	255-57 (d)
9	"	NHAc	180-85
10	"	NH ₂ , HCl	242-43 (d)
11	p-NHAcC ₆ H ₄	H	Not sharp
12	"	NO ₂	188-89 (d)
13	p-NH ₂ C ₆ H ₄	H	179-81
14	"	NO ₂ , HCl	267-69 (d)
15	p-C ₁₀ H ₇	H	278-80 (d)
16	"	NO ₂	258-59 (d) with previous shrinking
17	"	NHAc	203-5 (d)
18	"	NH ₂ HCl	139-40 (d)

With a view to studying the pharmacological properties, a few arsenical azo dyes, of type (II), have been prepared from p-amino-benzene sulphonyl-oxy-phenyl arsonic acid (13).



X = hydroxy or amino-aryl residue.

Full details will be published elsewhere.

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ORGANO ARSENICALS- Aryl Sulphonyl Esters of Hydroxyphenyl Arsonic Acids

In view of the therapeutic importance of Organo Arsenicals, systematic investigations on the synthesis of new arsenicals for pharmacological studies have been in progress in our Laboratories.¹ A survey of the literature showed that very little study has been made of the aryl sulphonyl esters of hydroxyphenyl arsonic acids, one instance being the preparation of p-toluene sulphonyl ester of 3-nitro-4-hydroxy-phenyl arsonic acid by Benda and Bertheim.²

Eighteen sulphonyl esters (*vide* table below) of the general formula (I) have been prepared by the action of benzene-, p-toluene, p-chlorophenyl-, p-acetaminophenyl- and β-naphtha-

1. Krishnan, P. P., Iyer, B. H., and Guha, P. C., *Indian Chem. Soc.*, 1947, **24**, 285, 289, 565. 2. Benda, L., and Bertheim, A., *Ber.*, 1911, **44**, 3147. 3. Fox, H. H., *J. Org. Chem.*, 1947, **12**, 872.