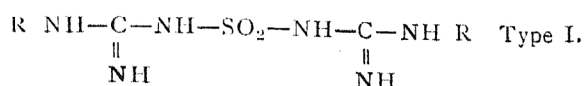


SOME ARYL AND ALKYL-SULPHURYL-
BIS-GUANIDINES AS POSSIBLE
ANTIMALARIALS

THE discovery of N^1 -*p*-chlorophenyl- N^3 -isopropyl biguanide¹ and its unique antimalarial property led to extensive researches in this virgin fields of biguanides and guanidine derivatives. Keeping in view the interesting results obtained by King and Tonkin² in the field of guanidines as also the very encouraging pharmacological data obtained in this laboratory with aryl and alkyl guanidine derivatives of sulphonamides,³ it was considered worthwhile to prepare a series of compounds which would have two guanidine residues linked with the active SO_2 group of sulphonamides.

The following sulphuryl-bis-guanidines of Type I have been prepared.

These bis-guanidine compounds were prepared by reacting 2 mols. of the appropriate guanidine base with 1 mol. of sulphuryl chloride in an inert and thoroughly dry solvent



R	M.P.	
	Hydrochloride	Base
1 H-	108° C.	91° C.
2 CH ₃ -	128° C.	94° C.
3 $-\text{CH}_2-\begin{matrix} \diagup \text{CH}_3 \\ \diagdown \text{CH}_3 \end{matrix}$	148° C.	111° C.
4 C ₆ H ₅ -	152° C.	123° C.
5 <i>p</i> -Cl-C ₆ H ₄ -	212° C.	181° C.
6 <i>p</i> -Br-C ₆ H ₄ -	216° C.	183° C.
7 <i>p</i> -I-C ₆ H ₄ -	232° C.	207° C.
8 <i>p</i> -(Me) ₂ -C ₆ H ₃ -	227° C.	204° C.
9 <i>p</i> -Me-C ₆ H ₄ -	215° C.	190° C.
10 <i>p</i> -Me-C ₆ H ₄ -	205° C.	193° C.
11 NH ₂ -C ₆ H ₄ -SO ₂ -	197° C.	177° C.

like benzene, acetone, etc. The guanidine bases were obtained from their salts by treatment with molecular proportions of metallic sodium in dry acetone. The free bases of the bis-guanidine salts were obtained by the addition of the requisite amount of dilute alkali, to an alcoholic solution of the salts. Both the salts and bases of the bis-guanidines were crystallised from either alcohol or dilute alcohol.

The compounds are awaiting pharmacological examinations. Full details will be published elsewhere.

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1. Curd and Rose, *J. Chem. Soc.*, 1946, 729. 2. King and Tonkin, *Ibid.*, 1946, 1063. 3. Guha, Roy and Guha, *J. Sc and Ind. Res.* (Under publication).