

CORRESPONDENCE

every case the resulting product was only partially soluble in water, giving a cloudy solution which cleared on adding a trace of NaOH. In my experience it is not possible to prepare a compound represented by formula D suitable for clinical use. I am of the opinion that the incomplete solubility of these substances is due to the incomplete combination of 606 with the formaldehyde/bisulphite with resultant precipitation of some 606. I enclose representative specimens of the results of my experiments in this direction. These were prepared by treating each molecule of 606 with 1.5 mols. of formald./bisulph., the extra $\frac{1}{2}$ mol. being necessary in my experience for the preparation of even normal sulpharsphenamines.

The percentage of arsenic which would be present in the compounds represented by formulæ D, E and F is also of some importance and research here and elsewhere indicates that normal sulpharsphenamine is either the — NNN¹-substituted product (F) or a mixture of E with about one molecule of sodium formaldehyde bisulphite. The B.P gives the percentage of As as 18–21 and hence on this alone normal sulpharsphenamine cannot be represented by formulæ D and E as the following table shows. These calculations are made on the pure substance with 5% H₂O, this being an average amount of humidity present in normal sulpharsphenamines.

Col. Burke's Formula	Substituting Chains	% As in Pure Substance with 5% H ₂ O
D . .	One—N	30%
E . .	Two—NN ₁	23.8%
F . .	Three—NNN ₁	20%

As the paper indicates the formula for sulpharsphenamine seems to be in some doubt, but in computing this I think it essential to take into account the percentage of As. allowed by the authorities and desirable from a practical manufacturing viewpoint.

I should be extremely grateful for comments on my observations and thank you in anticipation.

Yours, etc.,
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ERRATUM

On page 114 of the January–April, 1941, number, at the end of line 26 *for* essay *read* assay.