

## LETTER TO THE EDITOR

### The Determination of Santonin in Artemisia—Solubility Correction

SIR,—With reference to the letter of Mr. J. Isaacs published in your June number, I have to express regret for the mistake in the solubility correction to be added in the assay of santonica as described in my paper.<sup>1</sup> The figure should have been 0.046 g., and not 0.0064 g. as recorded. It was a clerical mistake, which unfortunately escaped my notice. In my earlier publication<sup>2</sup> the solubility correction was rightly recorded as 0.046 g., and this figure was used in later papers.<sup>3,4</sup> Minute traces of santonin are absorbed by the mixture of animal charcoal and kieselguhr used for removing the resinous colloidal impurities in the final purification of the santonin. Taking into consideration the solubility at 15° to 17° C. and the adsorption factor, I suggest 0.046 g. as the correction factor to be added to the final weight of refined crystals of santonin. I am most grateful to Mr. Isaacs for pointing out the error.

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#### REFERENCES

1. Qazilbash, *J. Pharm. Pharmacol.*, 1951, 3, 105.
2. Qazilbash, *Bull. Sci. Pharm.*, 1935, 42, 133.
3. Qazilbash, *Quart. J. Pharm. Pharmacol.*, 1942, 15, 328.
4. Qazilbash, *Ind. J. Pharm.*, 1943, 5, 58.

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#### ABSTRACTS (Continued from page 510)

**Vitamin B<sub>12</sub> from Fish, Hæmopoietic Effect of.** K. Hausmann and K. Mulli. (*Lancet*, 1952, 262, 185.) Concentrates of high microbiological vitamin B<sub>12</sub> activity were prepared from fish solubles and parenterally administered to 4 patients with pernicious anæmia in relapse. The doses were equivalent to 100 and 120 µg. of vitamin B<sub>12</sub> as microbiologically determined. There was no improvement in the clinical condition of any of the patients and no increase in the numbers of reticulocytes and red cells; the megaloblastic state of the bone marrow remained unchanged. After being treated with potassium cyanide for 8 days the concentrates became completely soluble in butanol and yielded the absorption spectra of vitamin B<sub>12</sub>. Administration to 3 of the patients of doses equivalent to 50 and 60 µg. of vitamin B<sub>12</sub> from this preparation resulted in rapid clinical improvement in the clinical condition, high reticulocytosis and increase in the number of red cells to normal levels within 3 weeks; the megaloblasts and giant myelocytes of the bone marrow disappeared. It is concluded that the hæmopoietically inactive red pigments are peptide conjugates of vitamin B<sub>12</sub> which can be utilised for the growth of lactic acid bacteria but not in the intermediate metabolism of patients with pernicious anæmia, and that treatment with potassium cyanide releases vitamin B<sub>12</sub> from peptide linkage.

S. L. W.