NOTES.

Two Apparent Cases of Liquid Crystal Formation. By Alan Edwin Bradfield and Brynmor Jones.

In the course of another investigation it was observed that *p*-*n*-propoxy- and *p*-*n*-butoxy-benzoic acids after repeated crystallisation melt sharply at 145·6° and 146·7° to give milky liquids, which at 156° and 160·2°, respectively, suddenly become clear. Facilities are

not available for the further investigation of this phenomenon, which suggests liquid crystal formation.

A melting point of 145—147° has been recorded for *p*-*n*-propoxybenzoic acid (Remsen and Graham, *Amer. Chem. J.*, 1889, **11**, 328; Gattermann, *Ber*, 1899, **32**, 1120; Cohen and Dudley, J., 1910, **97**, 1738), but no mention is made of the formation of a milky liquid.

p-n-*Butoxybenzoic acid* is prepared by refluxing 1 mol. of *p*-hydroxybenzoic acid with 1·1 mols. of butyl iodide and 2 mols. of potassium hydroxide, dissolved in an equal weight of water, for 4 hours at 110°; 10% potassium hydroxide solution (1 mol.) is then added, and refluxing continued for 30 minutes, to hydrolyse any ester formed. When the liquid is cooled and acidified with concentrated hydrochloric acid, the acid is precipitated; it may be recrystallised from acetic acid (Found: *M*, by titration, 195. Calc.: *M*, 194).—UNIVERSITY COLLEGE OF NORTH WALES, BANGOR. [*Received*, *September 24th*, 1929.]

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6 (*or* 8)-*Nitro*-1-*phenylphthalazine: A Correction.* By JÑANENDRA NATH RÂY.

IN our further experiments on the phthalazines in continuation of the work of Aggarwal, Darbari, and Rây (this vol., p. 1941) we have re-investigated the production of the compound named in the title. It was found that *m*-nitrobenzaldehydebenzoylhydrazone (m. p. 190°), on treatment with phosphorus oxychloride in chloroform, gave yellowish needles, m. p. 165—167°. This substance melted at 167—168° when mixed with *m*-nitrobenzaldehydebenzoylhydrazone and yielded a small quantity of this hydrazone after repeated crystallisation; probably, therefore, it was unchanged initial material rendered impure by some substance with a higher nitrogen content.—THE UNIVERSITY, LAHORE. [*Received*, *October 21st*, 1929.]