

no general rush to do work of this character is noticeable. Yet it is the work of the future, for which real chemists must be specially and fully trained. The outstanding task of difficulty will be the precise determination, by competent chemists and physio-

logists working in unison, and animal activity effect their distinctive purposes. Chemistry may be said to be full of vitality, because its outlook is becoming increasingly vital: in this special connection, of ever-growing public importance."

ANNOUNCEMENTS

PRODUCTION OF TIN-BISMUTH FOIL

The International Tin Research Institute, has recently conducted trials in the production of tin-bismuth eutectic alloy in the form of continuous lengths of foil, of various thicknesses and widths. Good quality material has been produced by a process known as melt-spinning. In essence, this process involves the impingement of a molten stream of metal on to a copper wheel rotating at high speed. The metal solidifies extremely rapidly and is thrown off the wheel as a continuous ribbon. Cooling rates of 1 million degrees C per second are possible with this apparatus. Alloy structures and properties are greatly modified by this casting method and the Institute is studying a wide range of alloy systems.

Tin-bismuth is produced with an extremely fine grain size and enhanced ductility, although the greatest benefit may be that of simply producing foil

without the need for costly and complicated rolling and heat treatment stages. One anticipated use for the foil is for the production of solder pre-forms. Tin-bismuth eutectic solder has the advantage of a low melting point, 130°C, compared to eutectic tin-lead, 183°C. This may be particularly advantageous when heat-sensitive components are to be soldered by a reflow technique such as vapour-phase soldering. The wetting properties of tin-bismuth are not significantly different from those of tin-lead even at the lower soldering temperature and their mechanical properties are, under some conditions, superior.

Further information can be had from: C. J. Evans, Head of the Development Department, International Tin Research Institute, Fraser Road, Perivale, Greenford, Middlesex, UB6 7AQ England.

ORGANOTINS IN WOOD PRESERVATIVES

The International Research Group on Wood Preservation recently held its 14th Annual Meeting in Queensland, Australia, and the series of papers that were concerned with organotin wood preservatives are summarised in 'Tin and its Uses' No. 138, together with some of the ensuring discussions. Also in 'Tin and its Uses' No. 138 is an account of the work of the Australian Tin Information Centre on its 10th

Anniversary, a report on the European Pewter Union and a Pewter Craft Fair in the U.K. There is an account of studies of the use of tin (IV) oxide based catalysts, in CO₂ gas lasers, and also a feature on gypsy wipe tanners in the U.S.A. Further information can be had from: C. J. Evans, Head of Development Department, I.T.R.I. Fraser Road, Perivale, Greenford, Middlesex, UB6, 7AQ England.
