PL ISSN 0032-3012

1 1984

POLISH TECHNICAL REVIEW

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153/1984

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SIGMA

PUBLISHERS OF TECHNICAL PERIODICALS AND BOOKS SIGMA – AN ENTERPRISE OF THE CENTRAL TECHNICAL ORGANIZATION
ul. Biała 2/4, 00-950 Warsaw, P.O.B. 1004, Tel. 39 11 99 Issued in Englich, French, Gertman and Russian

CONTENTS

Automation in the processing of non-ferrous metals ores

The use of measuring and control systems leads to an improved stability of the controlled process, a reduction of energy consumption, improvement of technological indices, etc. The Institute of Non-ferrous Metals in Gliwice has developed original solutions of measuring systems determining the most important technological parameters of the ore dressing process. For details see p.2.

Tin-free solders for soft soldering applications

Tin-lead alloys are the basic filler metals used for soft soldering. Economic analysis which took into consideration the high price of tin has resulted in research on the development of low tin content and even tin-free filler metals. This research led to the development of 5 tin-free solders type Pb-Cd with a melting temperature of 505···538 K. The article on p.4 discusses the properties of these solders and compares them with the commonly used Sn-Pb solders. The authors give examples of the application of the new solders which are many times cheaper than the conventional ones.

Machine-building

This section brings articles on two interesting technological solutions: hydrodynamic vibrators and a new type of planetary gear. Oscillations in the vibrators are produced as a result of the pulsations of a liquid in a confined space which results in a number of advantages e.g. high flexibility of making vibrators of different shapes, possibility of controlling vibration parameters, long service life and safety in use (p.21). The planetary gear is provided with rolling spring rings. Its advantages include low production costs and universal application e.g. as a reducing or multiplying gear, as a rolling bearing, etc. (p.20).

Press Service

Also this issue of PTR includes a Press Service bringing a number of interesting technological news, published in a brief form and easy to propagate. We cordially invite all the editors of technical magazines to make reprints from our Press Service.

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Cover photo: Partial view of the motor – car factory in Warsaw (foto CAF – D. Gładysz)
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Printing office: SIGMA-Warsaw
Index no 36915