



POLISH TECHNICAL REVIEW



 **UNITRA
CEMAT**



POLISH TECHNICAL REVIEW

SIGMA

PUBLISHER OF TECHNICAL PERIODICALS AND BOOKS SIGMA - AN ENTERPRISE OF THE CENTRAL TECHNICAL ORGANIZATION
ul. Biala 4, 00-950 Warsaw, P.O.B. 1004, tel.: 39 11 99, telex: 814877 WCT WA PL. Issued in English, French, German and Russian.

Contents

ELECTRONICS

	page
15 years of activities of the UNITRA-CEMAT Research and Production Enterprise	2
New technologies of manufacturing semiconductor silicon	3
New ceramic materials	4
An atomic emission with microwave-induced plasma excitation	5
Ceramics and ceramic composites in surgical implantation	6
Electronic pastes	8
Contact materials with an infusible phase ...	9
Preparation of silver powder by chemical precipitation	10
Porous metallic materials	10
METAL TREATMENT	
Data transmission equipment for marine applications	11
The MINI automatic electroplating machines.	13
Induction furnaces	15
A cast iron modifying agent	16
A sandmix preparation plant for Yugoslavia..	17
A small-sized training foundry	18
AT THE DESIGNER'S BOARD	
High quality - a factor of technological progress	19
VARIA	
Export of sugar factories	24
FAMPA - maker and exporter of machinery and equipment for the paper-making industry	26
IN BRIEF	17, 21-23, 29, 30, 31
BOOKS	27
ECONOMIC SURVEY	28
PRESS SERVICE	I-VIII

Materials for electronics

No development of electronics which is the basis of all walks of life is possible without an appropriate material base. This is the reason behind the establishment in Poland of a strong research-scientific centre of materials for electronics which has been given full development priority. The current issue presents the achievements of this branch of industry. It includes articles devoted to an atomic emission with microwave induced plasma excitation, new ceramic materials, contact materials with an infusible phase, the production of silicon monocrystals and electronic pastes. For details see p.2 and following.

The MINI automatic electroplating machines

These program-controlled automatic machines for selective gold, rhodium- and tungsten plating of the contacts of encapsulated switches have been awarded a gold medal at the Poznań International Fair due to their ingenious design which guarantees the achievement of coatings of a strictly determined thickness which in turn leads to a considerable economy of valuable coating materials, e.g. gold. See page 13.

High quality - a factor of technological progress

Mr. Adam Fostiak, director of the Group of Product Quality Qualification Centres, Katowice draws attention in an interview to the qualification and quality control methods used in Poland at various stages of the technological process. This helps to improve the quality of the final products and their compliance with the standards and requirements of Polish and foreign customers. The group of experts is also granting export services. Page 13.

Press service of Polish technology

Also this issue of PTR includes an insert (page I-VIII) - the Press Service which brings short, interesting technical news. They can be easily reprinted by various technical periodicals in the world. All reprints will be warmly welcome.

Programmatic council: K. Badźmirowski, J. Czamarski, S. Gruzewski (President), A. Nowik, S. Okoń, L. Sender, T. Wąsak, J. Toeplitz
Editorial staff: J. Toeplitz (chief editor), I. Chmielewska, A. Witkowski (assistant editors), S. Hilscher (managing editor), E. Karska, J. Wolf
English editor: E. Karska
Graphic layout: F. Barącz
Production manager: A. Dziewulska-Kijas.

Subscription orders should be addressed to the Ars Polona-Ruch, 00-950 Warsaw, P.O.B. 1002, Krakowskie Przedmieście 7 or to one of the representatives of this company abroad.

Printing office: SIGMA - Warsaw
Index no 36915