5-6

1982



POLISH TECHNICAL REVIEW



5-6

145-146/82



POLISH TECHNICAL REVIEW

X SIGMA

PUBLISHERS OF TECHNICAL PERIODICALS AND BOOKS FOR THE CENTRAL TECHNICAL ORGANIZATION (NOT) 00-950 Warsaw, ul. Świętokrzyska 14a, P.O.B. 1004, Tel. 39 11 34. Issued in English, French, German and Russian.

FOREIGN TRADE		
The reform in foreign trade		2
QUANTUM ELECTRONICS		
A continuous wave laser		4
YAG 50B pulsed loser		6
A low-power He-Ne laser head		8
A high-voltage pulse transformer		8
A converter of monochromatic radiation	to	
electrical valtage		9
A miniature modulator		9
HS-1 holocamera		10
A manipulator for the spatial orientation	n of	
mono-crystalline samples (patent)		13
ELECTRONICS		
New materials for the production of pri	nted	
circuits		14
Bipolar integraetd circutits for micropro	ces-	
sor systems		15
METALLURGY		
Spectral standards of non-ferrous metals	and	
their alloys		17
Pressureless extraction of materials diff	icult	
to oxidize		18
Resistance slag furnace for remelting	and	
smelting metals (potent)		19
Electrothermal fluidized bed furnace (pat	tent)	19
Electric chamber furnace		20
CHEMISTRY		
Light-sensitive silver halide emulsions		22
POLISH TECHNOLOGICAL NEWS		1-VIII
In brief 13, 24, 25,	26, 2	7, 28
Economic survey	. 2	1, 30
New books		29
Index of PTR for 1982		31

The year 1982 was not a good time for our magazine. The facts known to our readers, i.e. the economic difficulties which we have and which also affected the printing industry, the social unrest and finally the proclamation of martial law have caused a temporary suspension of our activities. We have been obliged, therefore, to issue one treble issue (1-3), one regular issue (4) and the present issue no 5/6 is the last to be published this year. In addition to all that, we had to stop publishing Polish Technological News in the form of a separate magazine. The latter publication which was financed by the Polish Chamber of Foreign Trade played an important role in popularizing the achievements of the Polish industry and technology. Many foreign scientific and technical magazines were able to reprint, free of charge, the information included in Polish Technological News owing to which our news reached a broad group of readers. In order not to waste the results achieved so far, we have decided to continue the publication of PTN in the form of an insert to Polish Technical Review. The first such insert is attached to the present issue. We suggest to all our readers to take full advantage of the materials included in both the insert and the magazine itself. In case of reprints we kindly ask you to keep us informed and to send us a copy of the periodical in which the reprint has been published. At the end of the insert our readers will find a cooperation offer of the Polish industry. Due to difficulties largely due to the shortage of hard currency for the purchase of raw materials and semi-products, many Polish factories have a production potential which could be used in the case of compensation supplies from other countries in exchange for ready products. In the present issue we present one branch of industry i.e. electrotechnics and electronics. The next issue will include the offer of the wood processing industry. This information is Intended for industrial and trade chambers and for other receivers of our magazine. In this connection we express the hope that it will be broadly popularized.

Apart from all that, the present issue does not differ from our previous ones. We continue to present the new achievements of Polish industry and Polish know-how. For it should be mentioned that despite the difficulties which our country has, technical ideas continue to be developed and the economic reform which we are beginning to introduce has brought its first effects in the form of an increased interest of enterprises in a presentation of their achievements, increased sale and export of modern products and services. An extensive article on the reform in Polish foreign trade informs our readers on the sources of interest in exports. The technical part includes several articles on quantum electronics and other domains of electronics as well as on new achievements in metallurgy and chemistry. All these articles are worth reading.

The editors

Programmatic Council: K. Badźmirowski, S. Grużewski (President), S. Okoń, L. Olejarz, T. Wąsok, J. Toeplitz

Editorial staff: J. Toeplitz (chief editor), I. Chmielewska, A. Witkowski (assistant editors, S. Hilscher (managing editor), E. Karska, Z. Schellenberg, J. Wolf

English version: E. Karska Graphic layout: F. Barqcz

Production managers: A. Dziewulska-Kijas, B. Słowińska

Advertising section: Ksawery Gruber

Cover photo: HYDROS T-631 truch-mounted crane

Subscription orders should be addressed to the Ars Polona-Ruch, 00-950 Warsow, P.O.B. 1002, Krakowskie Przedmieście 7 or to one of the representatives of this company abroad. The annual subscription rate (6 issues) amounts to US \$ 25.20 (£ 14.40) or the equivalent in other currencies. In the socialist countries, catalogue prices of the local distribution centres apply.

Printing office: Łódzka Drukarnia Akcydensowa, Zakł, nr 2, zam. 620/82 INDEX No 36915