

Editor-in-Chief B.E.Paton

Editorial board:

Yu.S.Borisov	V.F.Khorunov
A.Ya.Ishchenko	I.V.Krivtsun
B.V.Khitrovskaya	L.M.Lobanov
V.I.Kyrian	A.A.Mazur
S.I.Kuchuk	Yatsenko
Yu.N.Lankin	I.K.Pokhodnya
V.N.Lipodaev	V.D.Poznyakov
V.I.Makhnenko	K.A.Yushchenko
O.K.Nazarenko	A.T.Zelnichenko
I.A.Ryabtsev	

International editorial council:

N.P.Alyoshin	(Russia)
U.Diltay	(Germany)
Guan Qiao	(China)
D. von Hofe	(Germany)
V.I.Lysak	(Russia)
N.I.Nikiforov	(Russia)
B.E.Paton	(Ukraine)
Ya.Pilarczyk	(Poland)
G.A.Turichin	(Russia)
Zhang Yanmin	(China)
A.S.Zubchenko	(Russia)

Promotion group:

V.N.Lipodaev, V.I.Lokteva
A.T.Zelnichenko (exec. director)

Translators:

A.A.Fomin, O.S.Kurochko,
I.N.Kutianova, T.K.Vasilenko

Editor:

N.A.Dmitrieva

Electron gallery:

D.I.Sereda, T.Yu.Snegiryova

Address:

E.O. Paton Electric Welding Institute,
International Association «Welding»,
11, Bozhenko str., 03680, Kyiv, Ukraine
Tel.: (38044) 200 82 77
Fax: (38044) 200 81 45
E-mail: journal@paton.kiev.ua
<http://www.nas.gov.ua/pwj>
State Registration Certificate
KV 4790 of 09.01.2001

Subscriptions:

\$324, 12 issues per year,
postage and packaging included.
Back issues available.

All rights reserved.

This publication and each of the articles
contained herein are protected by copyright.
Permission to reproduce material contained in
this journal must be obtained in writing from
the Publisher.

Copies of individual articles may be obtained
from the Publisher.

CONTENTS

SCIENTIFIC AND TECHNICAL

- Makhnenko V.I., Olejnik O.I. and Paltsevich A.P.* Hydrogen behaviour in repair welding of the main pipelines under pressure 2
- Turichin G.A., Tsybulsky I.A., Zemlyakov E.V., Valdajtseva E.A. and Kuznetsov M.V.* Development of the technology and equipment for laser and laser-arc welding of aluminium alloys 10
- Kah P., Hiltunen E. and Martikainen J.* Experimental investigation of hot cracking susceptibility of wrought aluminum alloys 16
- Tarassenko Yu.P., Berdnik O.B. and Tsaryova I.N.* Optimization of conditions of reduction heat treatment of blades of alloy KhN65VMTYu after long-term service 22
- Pereplyotchikov E.F. and Ryabtsev I.A.* Properties of iron-base alloys for plasma powder hard-facing of sealing surfaces of fittings 27
- Pokhodnya I.K., Karmanov V.I., Yavdoshchin I.R., Gubenya I.P., Khizhun O.Yu. and Khobta I.V.* Particle dispersity and manganese valence in welding aerosol 31

INDUSTRIAL

- Paton B.E., Lakomsky V.I. and Braginets V.I.* Welded electric contacts of dissimilar conductors 34
- Nesterenkov V.M., Bondarev A.A., Arkhangelsky Yu.A. and Zagornikov V.I.* Electron beam welding of bodies of drill bits with modifying of weld metal by zirconium 40
- Pokhmursky V.I., Student M.M., Gvozdetsky V.M. and Pokhmurskaya A.V.* Flux-cored wires of FMI series for coating deposition by electric arc spraying (Review) 44

BRIEF INFORMATION

- Ryzhkov S.S., Blintsov V.S., Egorov G.V., Zhukov Yu.D., Kvasnitsky V.F., Koshkin K.V., Krivtsun I.V., Nekrasov V.A., Sevryukov V.V. and Solonichenko Yu.V.* Development of versatile transport ships and ocean engineering facilities 49

NEWS

- Foundation of the E.O. Paton Chinese-Ukrainian Welding Institute 51