

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>

URL: www.rucont.ru

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

- Lobanov L.M., Pashchin N.A., Cherkashin A.V., Mikhoduj O.L. and Kondratenko I.P.* Efficiency of electrodynamic treatment of aluminium alloy AMg6 and its welded joints 2
- Makhnenko V.I., Velikoivanenko E.A., Rozyinka G.F., Pivtorak N.I. and Olejnik O.I.* Risk of failure in thinning of main pipeline wall at the area of circumferential welds in the presence of bending moments along the pipeline axis 6
- Quiroz V., Gumenyuk A. and Rethmeier M.* Investigations on laser beam welding of high-manganese austenitic and austenitic-ferritic stainless steels 10
- Prilutsky V.P., Rukhansky S.B., Akhonin S.V., Gadzyra N.F. and Davidchuk N.K.* Increasing wear resistance of titanium by argon arc overlaying 15
- Khokhlova Yu.A., Fedorchuk V.E. and Khokhlov M.A.* Combined diffusion process of joining bimetal elements of heat exchange system 18
- Pulka Ch.V., Shably O.N., Senchishin V.S., Sharyk M.V. and Gordan G.N.* Influence of vibration of parts on structure and properties of metal in surfacing 23
- Kharchenko G.K., Falchenko Yu.V., Fedorchuk V.E., Grigorenko S.G. and Rudenko M.M.* Manufacture of stainless steel-aluminum transition pieces by vacuum pressure welding method 26

INDUSTRIAL

- Zhernosekov A.M.* Tendencies in development of control of metal transfer processes in shielding gases (Review) 29
- Zhudra A.P. and Voronchuk A.P.* Cladding flux-cored strips (Review) 34
- Ivanov G.A. and Proncheva V.N.* Computer system for calculation of norms of consumption of welding consumables for manufacture and repair of steel pipelines 39
- Vigilyanskaya N.V., Borisov Yu.S. and Demianov I.A.* Thermal spraying of pseudo-alloy coatings (Review) 41

BRIEF INFORMATION

- Burlachenko A.N. and Borisov Yu.S.* Influence of surfactants on phase formation during production of Al-Cu-Fe system powders for thermal coatings by the method of mechanochemical synthesis 48
- Thesis for a scientific degree 51