

CONTENTS

JOURNAL OF THE JAPAN WELDING SOCIETY Vol.93 No.7 October 2024

Technical Information – Special Issue –

Frontiers of New Methods and Analysis of Additive Manufacturing

A Preface	{ KOYAMA Shinji FUKUMOTO Shinji Seung Hwan C. Park SHIBAHARA Masakazu OGURA Tomo	3
Powder Reuse and Regeneration by the Infiltration Technique in Electron Beam Melting (EBM)-powder Bed Fusion (PBF) Additive Manufacturing	{ NAGASE Takeshi IMAKI Tatsuhiko TAKEUCHI Akira YANAGITANI Akihiko YAMAGUCHI Atsushi YAMASAKI Tohru	4
Development of Analysis Method for Laser Metal Powder Bed Additive Manufacturing Process by Lattice Boltzmann·Multi-Phase Field Methods	NOMOTO Sukeharu	9
Metal Additive Manufacturing Improved in High Gravitational Fields	KOIKE Ryo	15
Innovative DED Manufacturing Process Using Coaxial Wire Feeding with High-power Laser	{ YAMAGUCHI Yusuke ONO Yushi	21
Establishment of Defect-Free Fabrication Technology Through In-Situ Monitoring in Electron Beam Additive Manufacturing	CHIBA Akihiko	26
Fundamentals of Welding and Joining		
Welding Procedure Control and Monitoring of Weld Quality	ASAI Satoru	42
Let's Join Together, Engineers!		
In-process Monitoring of Welding Quality in FSW Using Digital Device and Software	SHIOTSU Ryoga	52
Essay		
A Life with "Computational Welding Mechanics" in the Age of 100 Years of Life -Part1-	UEDA Yukio	58
Spot Light		
– Egg of Welding –	ITO Tamaki	61
Up-to-the-minute		
Report of Aircraft Manufacturers and Green Transformation in Europe	TSUZUKI Ryoichi	64
WELNET for Young Members		
Report of the first young researcher group seminar and visitation in 2024		70
Calendar of Event		72
Society Announcements		74
List of JWS Company Members		78

一般社団法人 溶接学会 2024・2025年度 理事・監事・幹事

理事 (会長)	田 中 学	理事	小 川 剛 史	理事	平 田 弘 征
" (副会長)	大 畑 充	"	小 野 数 彦	"	藤 井 英 道
" (")	藤 本 光 生	"	川 本 篤 寛	"	山 本 元 泰
"	青 山 和 浩	"	佐 藤 成 裕	"	横 田 泰 之
"	石 出 孝 博	"	大 丸 成 一	監事	才 田 一 幸
"	伊 藤 和 博	"	田 川 哲 哉	"	清 水 弘 篤
"	猪 瀬 幸 太 郎	"	中 谷 光 良	幹事	青 木 人
"	恵 良 哲 生	"	林 淳 一		

Notice for photocopying

If you wish to photocopy any work of this publication, you have to get permission from the following organization to which licensing of copyright clearance is delegated by the copyright owner.

<All users except those in USA> Japan Academic Association for Copyright Clearance, Inc. (JAACC) 6-41 Akasaka 9-chome, Minato-ku, Tokyo 107-0052 Japan TEL: 81-3-3475-5618 FAX: 81-3-3475-5619 E-mail: info@jaacc.jp

<Users in USA> Copyright Clearance Center, Inc. 222 Rosewood Drive, Danvers, MA 01923 USA

Phone: 1-978-750-8400 FAX: 1-978-646-8600