

# CONTENTS

## JOURNAL OF THE JAPAN WELDING SOCIETY Vol.84 No.4 June 2015

---

The Address by the President in General Meeting .....	KOKAWA Hiroyuki	3
Welcome to Sapporo .....	TANUMA Yoshinobu	4
<b>Essay</b>		
Perspectives on Technology Research and Development Activities.....	ARIMOCHI Kazushige	6
<b>Let's Join Together, Engineers!</b>		
Low Alloy Corrosion Resistant Steel for Cargo Oil Tank Bottom Plate .....	SAKASHITA Shinji KAWANO Haruya FURUKAWA Naohiro	9
Control Technologies for Arc Welding		
<b>Technical Information —Special Issue —</b>		
Control Technologies for Arc Welding		
A Preface .....	FUJII Hiromichi Mukai Naoki	13
Metal Transfer Control by Synchronous Control of Wire Push-Pull Feeding .....	ERA Tetsuo	14
and Current Waveform		
Regulated Globular Transfer Method for CO <sub>2</sub> Gas Shielded Arc Welding .....	SATO Eiji YAMAZAKI Kei	19
Effect of Magnetic Field on Flows and Temperature Distribution of Molten Pool in Electromagnetic Controlled Molten Pool Welding Process .....	MATSUDA Shoichi TANAHARA Yasushi	24
Numerical Simulation of Welding Arc Phenomena Including Metal Transfer .....	OGINO Yosuke	31
Tracking of Welding Using Image Processing .....	YAMANE Satoshi	35
<b>Practical Lecture —Advanced Lecture —</b>		
Guideline of Innovative Structural Design .....	AIHARA Shuji	43
—Standardization of Crack Arrest Evaluation Procedures— .....		
<b>Point Lesson of Experiments</b>		
How to Investigate Trouble with Welded Joints Performance.....	SUGINO Takeshi	50
<b>Up-to-the-minute</b>		
Report of the APCFS/SIF-2014.....	OKANO Shigetaka	54
Report on 21st Symposium on "Microjoining and Assembly Technology in Electronics"	MATSUSHIMA Michiya	56
Report of the 4 <sup>th</sup> IIW Welding Research and Collaboration Colloquium .....	KONISHI Kyohei TANAKA Manabu	59
<b>Spot Light</b>		
—My History for Welding— .....	SAKATA Mikihiro	62
<b>WELNET for Young Members</b>		
Minutes of the 52nd meeting of the WELNET steering committee .....	64	
<b>Calendar of Event</b>		66
<b>Society Announcements</b>		67
<b>Society News</b>		70
Quarterly Journal of the Japan Welding Society Vol. 33 No.1 2015 .....	94	