

CONTENTS

JOURNAL OF THE JAPAN WELDING SOCIETY

Vol.81 No.2 March 2012

Essay

What is seen in Japan from Germany? MIYAMOTO Isamu 3

Let's Join Together, Engineers!

Fiber Laser Cutting Machine { ISHIGURO Hiroaki 7
SAKO Hiroshi

Technical Information — Special Issue —

Simulation and Modeling of Welding Metallurgy

A Preface { IKEGAMI Yu-ichi 11
NAGASAKI Hajime
MIYAZAKI Yasunobu
KAWANO Hikaru

Numerical Simulation and Modelling in Welding Metallurgy Field { SAIDA Kazuyoshi 12
NISHIMOTO Kazutoshi

Mechanical Simulation
for Predicting Welding Hot Cracking and Examples of Application MURAKAWA Hidekazu 21

Simulation of Grain Refinement using Monte Carlo Method { YAMAGUCHI Tomiko 26
IKEDA Hideyuki
NISHIO Kazumasa

Microstructure Simulation of 490MPa Weld Metal { MURAKAMI Toshio 32
NANBA Shigenobu

Development of Numerical Model to
Predict Solidification Cracking Susceptibility on Austenitic Weld Metal OSUKI Takahiro 39

Simulation of Microstructure Formation by Multi-phase-field Method FUKUMOTO Shigeo 44
NOMOTO Sukeharu

Practical Lecture — A Class in Joining & Welding —

Construction Equipment, Crane (Design) { YAMAMOTO Hikaru 48
SHIMODAIRA Takayuki
TAKAHASHI Takeshi

Welding Consumables for Construction Machinery and Crane { KURIYAMA Ryohei 54
SATO Munenobu

Up-to-the-minute

Report on 61st CIRP General Assembly in Budapest, Hungary 2011 YOSHITOMI Kei 59

Spot Light

Egg of Welding KADOTA Keiji 62

WELNET for Young Members

Information of WELNET Evening Forum at JWS National Meeting in Spring 2012 65

Calendar of Event

..... 66

Society Announcements

..... 67

General Index; Quarterly Journal of the Japan Welding Society, 2011

..... 75