



Vol.7 No.3 August 2010
(Quarterly, started in August 2004)

As the transaction for Foundry Institution of Chinese Mechanical Engineering Society (FICMES), *CHINA FOUNDRY*, published quarterly to a worldwide readership in English by Foundry Journal Agency, covers the whole fields of foundry technology for iron, steel and non-ferrous castings, including sand molding casting, die casting, investment casting, etc. It mainly reports advanced scientific and technical achievements, applied technology, successful experiences in production organization, management and leadership, recent developments and industry information. The Foundry Journal Agency is not responsible for statements or opinions advanced by authors of papers or articles printed in the publications. *CHINA FOUNDRY* is indexed by Science Citation Index-Expanded (SCI-E) (available through the Web of Science®, beginning with the first issue of 2007), Chemical Abstracts (CA), Cambridge Science Abstracts (CSA), Abstract Journal (AJ) and Elsevier's largest abstract and citation database – Scopus and so on.



Copyright:

© Foundry Journal Agency. All rights reserved. No part of this publication may be reproduced or transmitted in any form or any means, or translated into a foreign language without the written permission of the copyright owners.

万方数据

Contents

Research & Development

- 217** Effect of solidification parameters on the microstructures of a single crystal Ni-based superalloy AM3
Yu Zhuhuan, Liu Lin, Zhao Xinbao, et al
- 224** A novel technique for making open-cell Al₂O₃-ZrO₂ ceramic foam with plant seed template
Yu Jingyuan, Li Qiang, Tang Ji, et al
- 230** Research on cracking mechanism of the thin shell mould in expendable pattern shell casting during pattern removal process
Jiang Wenming, Fan Zitian, Liao Defeng, et al
- 236** Effect of Sb on the grain refinement and tensile properties of Mg-10Zn-5Al alloys
Zhang Zhaoguang, Zhang Jinshan, Liu Yali, et al
- 241** Numerical simulation of electro-magnetic and flow fields of TiAl melt under electric field
Zhang Yong, Ding Hongsheng, Jiang Sanyong, et al
- 248** Effects of La₂(CO₃)₃ on microstructure and mechanical properties of ZM-5 magnesium alloy
Liu Chuang, Li Yusheng, Ma Zhiyi, et al
- 253** Numerical simulation of boundary heat flow effects on directional solidification microstructure of a binary alloy
Xue Xiang and Tang Jinjun
- 259** Study on traveling magnetic field casting of sheet components
Su Yanqing, Xu Yanjin, Zhao Lei, et al
- 265** Effect of γ' formation and strengthening elements on microstructures and stress rupture property of single crystal super-alloys
Liu Lirong, Chen Haijun, Jin Tao, et al
- 270** Gypsum bonded investment for micro-structure casting of ZnAl4
Yang Chuang, Li Bangsheng, Ren Mingxing, et al
- 275** Effects of beryllium and iron additions on iron-bearing phase in A357 aluminum alloys
Chen Zhongwei, Zhang Haifang and Zhang Ruijie



An Informative Window on China's Foundry Industry

Overseas Foundry

- 278** Cast bulk glassy alloys: fabrication, alloy development and properties
Qingsheng Zhang, Chunling Qin and Akihisa Inoue
- 287** Measurement of heat treatment induced residual stresses by using ESPI combined with hole-drilling method
Jie Cheng, Si-Young Kwak, and Ho-Young Hwang

Serial Report

- 292** Colour Metallography of Cast Iron
Chapter 3: Spheroidal Graphite Cast Iron (III)
Zhou Jiyang, Professor, Dalian University of Technology

Information

- 308** The 12th "FOSECO Cup" Excellent Foundry Papers Released
- 312** Excellent Casting Awards at the 2010 China International Foundry Expo
- 315** Development, Application and Problem of Ductile Iron Lost Foam Casting Technology in China
- 319** The First "Yeong Guan Cup" Foundry Process Design Competition for Chinese University Students — Prize Evaluation and Award Ceremony
- 322** Bronze Casting Sculptures in Commemoration of the 30th Anniversary of China-US Diplomatic Relations

Advertisements

Inside Back Cover, A1 Suzhou Xingye Foundry Materials Co., Ltd.
Suzhou Xingye Chemicals Co., Ltd.

Inside Front Cover, B14 Foundry Journal Agency

Back Cover Shengquan Group

A2 Shenyang Research Institute of Foundry

A3 Illustration for Front Cover

B1 The 69th World Foundry Congress, 2010, Hangzhou China

B2 Program at a Glance for the 69th WFC

B3-10 Program of Technical Papers at the 69th WFC

B11 Science and Processing of Cast Iron (SPCI-9), Luxor, Egypt,
November 2010

B12 Zhejiang Wanfeng Technology Development Co. Ltd.

B13 ZiBo TAA Metal Technology Co. Ltd.

Responsible Department:

China Machinery Industry Federation

Sponsor:

Shenyang Research Institute of Foundry

Associate Sponsor:

Foundry Institution of Chinese Mechanical Engineering Society

Edited and Published by:

Foundry Journal Agency

Director:

Lou Yanchun

Chief Editor:

Ge Chenguang, gcg@foundryworld.com

Associate Editor:

Jia Shuqin, jsq@foundryworld.com

Editor:

Zhang Chunyan, zcy@foundryworld.com

Circulation and Advertising Contact:

Zhang Chunyan, zcy@foundryworld.com

Add: No.17 Yunfeng Street South, Tiexi District,
Shenyang 110022, P. R. China

Tel: + 86 - 24 - 2584 7830, 25852311-209

Fax: + 86 - 24 - 2561 1880

Website: www.foundryworld.com

Subscription and Payment:

Subscription rates:

China: CNY 24, single issue

CNY 96, 4 issues for one year

(includes postage)

Overseas: US \$ 15, single issue

US \$ 60, 4 issues for one year

(includes postage)

The line of paying by T/T is as follows:

Remitting Bank: Bank of America N. A. New York

Swift code: BOFAUS3N

Intermediary Bank: Industrial and Commercial
Bank of China H.O.

Swift code: ICBKCNBJ

A/C No.: 6550790149

Beneficiary's Bank: Industrial and Commercial Bank
of China Liaoning Province Branch

Swift code: ICBKCNBJLNP

Beneficiary's A/C No.: 33010050092640081-18

Beneficiary's Name: Shenyang Research Institute of
Foundry