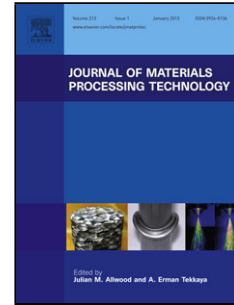


## Accepted Manuscript

Title: A Stir Casting System for Drawdown of Light Particles in Manufacturing of Metal Matrix Composites

Authors: Thanh Tinh Tran, Thanh Think Vo, Seung Chan Cho, Dong Hyun Lee, Wook Ryol Hwang



PII: S0924-0136(18)30071-2  
DOI: <https://doi.org/10.1016/j.jmatprotec.2018.02.025>  
Reference: PROTEC 15652

To appear in: *Journal of Materials Processing Technology*

Received date: 7-10-2017  
Revised date: 14-2-2018  
Accepted date: 16-2-2018

Please cite this article as: Tran TT, Vo TT, Cho SC, Lee DH, Hwang WR, A Stir Casting System for Drawdown of Light Particles in Manufacturing of Metal Matrix Composites, *Journal of Materials Processing Technology* (2010), <https://doi.org/10.1016/j.jmatprotec.2018.02.025>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# A Stir Casting System for Drawdown of Light Particles in Manufacturing of Metal Matrix Composites

Thanh Tinh Tran<sup>1</sup>, Thanh Thinh Vo<sup>1</sup>, Seung Chan Cho<sup>2</sup>, Dong Hyun Lee<sup>2</sup>, Wook Ryol Hwang<sup>1,\*</sup>

<sup>1</sup> School of Mechanical and Aerospace Engineering, Research Center for Aircraft Parts Technology, Gyeongsang National University, Jinju 660-701, South Korea.

<sup>2</sup> Korea Institute of Materials Science, Changwon 641-831, South Korea.

\*To whom correspondence should be addressed.

Email: [wrhwang@gnu.ac.kr](mailto:wrhwang@gnu.ac.kr); Fax: +82-55-772-1620; Tel: +82-51-772-1628

Submitted to J. of Materials Processing Technology

Revised: Jan. 25, 2018

2<sup>nd</sup> Revision: Feb. 14, 2018

## Abstract

An extensive set of experiments was carried out to examine the effects of impeller types, impeller locations (submergence), solid volume fraction, and baffle configuration on the drawdown efficiency. Flow simulations in a turbulent regime were also performed to investigate the flow patterns, spatial homogeneity (using the mean age distribution), and

Download English Version:

<https://daneshyari.com/en/article/7176364>

Download Persian Version:

<https://daneshyari.com/article/7176364>

[Daneshyari.com](https://daneshyari.com)