Im Doo Jung

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EDUCATION

June 2012~ Nov 2015	**Pohang University of Science and Technology (POSTECH)** **Pohang, Korea** Major: Mechanical Engineering, Micro-Manufacturing with Powder Injection Molding **Ph.D.**
Mar 2003~ Aug 2011	**Pohang University of Science and Technology (POSTECH)** **Pohang, Korea** Major: Mechanical Engineering **B.S.** (Top quarter)
Aug 2008~ Feb 2009	**University of Waterloo (UW)** **Waterloo, ON, Canada** Major: Mechanical Engineering, Micro-Nano Electromechanical Systems **Visiting scholar**

RESEARCH & PROFESSIONAL EXPERIENCE

June 2012~ Present	Powder Injection Molding of Magnetic Material National Research Foundation, Korea **Rheological modeling/ Fiber orientation modeling for PIM**
Dec 2013~ Jun 2014	Refractory Metal PIM Research/Project Ministry of Trade, Industry and Energy, Korea **Characterization and Modeling of Titanium feedstock and Molybdenum feedstock**
Jun 2012~ Jan 2013	Inconel 713C Ni based superalloy PIM Project Agency of Defense Development, Korea **Processing and simulation of Superalloy turbine blades PIM**
Dec 2013~ Aug 2014	17-4PH stainless steel surgical tool PIM Project National Research Foundation, Korea **Design of 17-4PH PIM process for Endo-tip surgical tool**

INDUSTRIAL EXPERIENCE

Sep 2011~ May 2012	POSCO CO. LTD **Pohang, Korea** ◆Surface treatment of Stainless steel during cold rolling process

PUBLISHED ARTICLES

2013~2015	◆Published: **5 SCI papers** (Including one paper in rank #1 journal of JCR category & best paper award) **2 Domestic papers** (Journal of Korean Powder Metallurgy Institute) ◆Under review: **2 SCI papers** *Article list has been attached at the end

PATENENTS

Feb 2015 Nov 2014	◆Direct micro fabrication of magnetic structure, 10-1493704, Korea, 2015, ◆3D printed mold inserted injection molding, 10-1467978, Korea, 2014,

TECHNICAL SKILLS

◆Rheology (Oscillatory, Steady shear), TGA, Dilatometry, PM & PIM processing
◆Moldflow, Fortran, C++, Auto CAD, Lab View, MATLAB, COMSOL

RESEARCH AWARDS

2014~2015
◆**Young engineer award**, Korean powder metallurgy institute, Seoul, Korea
◆**Best paper award,** Korean powder metallurgy institute, Seoul, Korea
◆**Best paper award**, Mechanical engineering department, POSTECH, Pohang, Korea
◆**Bi-annual Young engineer award** of Axel Madesen, PM World Congress, Orlando, USA

INTERNATIONAL CONFERENCES

JUN 2014 **International Symposium on Novel and Nano Materials 2014** Poland
◆Rheological Modeling of Magnetic Powder Injection Molding

MAY 2014 **Powder Metallurgy World Congress 2014** Orlando, USA
◆Particle size effect on the magneto-rheological behavior of powder injection molding

JAN 2014 **International Symposium on Plasticity 2014** Bahamas
◆Constitutive equation for high strain rates and high temperature at an atomic scale

ARTICLE LISTS

1. I.D. Jung, J.M. Park, T.G. Kang, S.J. Kim, S.J. Park, Magneto-rheological model for computational analysis of magnetic micro powder injection molding, *Computational Materials Science*-**1.88 Impact factor**, Vol. 100, pp. 39-44, **2015**

2. I.D. Jung, Y. Kim, S.J. Park, Characterization and simulation of Ni-Based Superalloy Powder Feedstock for Powder Injection Molding, *International Journal of Powder Metallurgy*-**0.41 Impact factor,** Vol. 51, pp. 27-34, **2015**

3. I.D. Jung, J.M. Park, J.-H. Yu, T. G. Kang, S.J. Kim, and S.J. Park, Particle size effect on the magneto-rheological behavior of powder injection molding feedstock, *Materials Characterization*-**1.93 Impact factor**, Vol. 94, pp. 19-25, **2014** (**JCR Category Rank #1, Best paper award**)

4. I.D. Jung, S.H. Kim, S.J. Park, S.J. Kim, T.G. Kang, J.M. Park, Rheological modeling of strontium ferrite feedstock for magnetic powder injection molding, *Powder Technology*- **2.27 Impact factor** , Vol.262, pp.198-202, **2014**

5. Y.M. Kim, S. Lee, J.W. Noh, S. H. Lee, I.D. Jung, S. J. Park, Rheological and sintering behaviors of nano-structured molybdeum powder, *International Journal of Refractory Metals and Hard Materials*-**1.76 Impact factor**, Vol.41, pp.442-448, **2013**

6. I.D. Jung, Y. Kim, S.J. Park, Simulation and Experiment of Injection Molding Process for Superalloy Feedstock, *Journal of Korean Powder Metallurgy Institute (Domestic Journal)*, Vol. 22, pp. 1-5, **2015**

7. I.D. Jung, Y. Kim, S.J. Park, Spark Plasma Sintering Behaviors of M-type Barium Hexaferrite Nano Powders, *Journal of Korean Powder Metallurgy Institute (Domestic Journal)*, Vol. 21(4), pp.256-259, **2014**

8. I.D. Jung et al, Comprehensive viscosity model for magnetic particle dispersed silicone oil, *Journal of Magnetism and Magnetic Material*-**2.002** Impact factor (Under review)

9. I.D. Jung et al, Two Phase Mater Sintering Curve for 17-4 PH, *Materials and Metallurgical Transactions A*-**1.73** Impact factor (Under review)