



## CURRICULUM VITAE

### Ahmad Moloodi

#### Academic Member

Department of Materials Engineering  
Iranian Academic Center for Education, Culture & Research (ACECR)  
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#### Personal Information

Gender: Male  
Date of Birth: Jan 14, 1981  
Place of Birth: Mashhad, IRAN  
Marital Status: Married  
Mother Language: Persian  
Foreign Language: English

#### Degrees

- Ph.D. Candidate, (Advanced Materials, Metal Foam), Ferdowsi University of Mashhad, Iran.
- M.Sc. (Design and Selection of Engineering Materials). Kerman University, Kerman, Iran, 2009.
- B.Sc. (Materials Science and Engineering), Ferdowsi University of Mashhad, Iran, 2005.

#### Teaching

- **Undergraduate**
  - Solidification
  - Manufacturing Processes
  - Metallography
  - Casting
  - Physical Metallurgy
  - Mechanical Metallurgy
  - Heat treatment of Metals
  - Materials Science
- **Postgraduate**
  - Casting of ferrous and non-ferrous materials
  - An introduction to casting simulation

### **Positions and Responsibilities**

- Academic member and researcher of Materials Science group of ACECR Mashhad branch, since 2010.
- Board of Trustees of Engineering and Technology unit of ACECR Mashhad branch, since 2013.
- Scientific member of Materials Department, Iranian Academic Center for Education, Culture & Research, Mashhad University Branch, Iran, since 2005.
- Member of Technical Program Committee of 4<sup>TH</sup> International Conference on Materials Engineering and Metallurgy , 8-9 November 2015, Tehran, Iran.
- Member of Technical Program Committee of 1<sup>st</sup> International conference on Mining, Metals & Materials Eng. 16 December 2015, Tehran, Iran.
- Scientific Adviser of Osveh Asia Medical Instrument Co.

### **Major Research Interests**

- Advanced Materials
- Metal Foams
- Heat treatment of Materials
- Biomaterials
- Casting
- Electrochemical Coating
- Materials Selection and Design
- Metallography of Ferrous and Non-Ferrous Alloys

### **Workshops**

- Metal foams, Introduction, Production and application, Iranian Academic Center for Education, Culture & Research, Mashhad University Branch, Iran Mashhad, 2012 & 2015.

### **Patents**

- Production of Metal Foam from Scrap, Iran, 2009.
- Production of porous synthetic bone block using PEG as a foaming agent, Iran, 2015.
- Production of open cell Ni foam via electrochemical deposition method and liquid phase sintering, Iran, 2016.
- Utilizing of hydrogen peroxide as a foaming agent in calcium phosphate synthetic bone graft, Iran, 2016.

## **Publications**

### **• Articles**

- A study on carbon nanotubes/nanofibers production via SHS method in C-Al-Fe<sub>2</sub>O<sub>3</sub> system, Ebrahim Vahid ZohorKarimi, Ahmad Moloodi, Jalil VahdatiKhaki, Journal of Materials Research and Technology, Available online 19 August 2017.
- An investigation of abrasive wear and corrosion behavior of surface repair of gray cast iron by SMAW, Alireza Sadeghi, Ahmad Moloodi, Masoud Golestanipour, Meysam Mahdavi ShahriMaterials, Journal of Materials Research and Technology, Volume 6, Issue 1, pp. 90-95, 2017.
- Physical and mechanical properties of porous copper nano-composite produced by powder metallurgy, Mina Sabzevari, Seyed Abdolkarim Sajjadi, Ahmad Moloodi, Advanced Powder Technology, Volume 27, pp. 105 – 111, 2016.
- Fabrication of Nano-composite Al-B<sub>4</sub>C Foam via Powder Metallurgy-space Holder Technique, M.R. Moradi, A. Moloodi, A. Habibolahzadeh, Procedia Materials Science, Volume 11, 2015, Pages 553-559.
- Fabricating Al foam from turning scraps, A. Moloodi, R. Raiszadeh, Materials and Manufacturing Process, Volume 26, 27 June 2011, Pages 890–896.
- On the role of both salt flux and cold pressing on physical and mechanical properties of aluminum alloy scraps, A. Moloodi, H. Amini, E. Z. V. Karimi, M. Golestanipour, Materials and Manufacturing Process, Volume 26, 05 Jul 2011, Pages 1207–1212.
- An Assessment of the Process of Self-Propagating High-Temperature Synthesis for the Fabrication of Porous Copper Composite, A. Moloodi, R. Raiszadeh, J. Vahdati-Khaki, A. Babakhani, Journal of Alloys and Compounds, Volume 487, Issue 1-2, 13 November 2009, Pages 413–419.
- Recycling of aluminum alloy turning scrap via cold pressing and melting with salt flux, Hossein Amini, Ahmad Moloodi, Masoud Golestanipour, Ebrahim Karimi, Journal of Materials Processing Technology, Volume 209, Issue 7, 1 April 2009, Pages 3138-3142.

### **• Proceedings**

- The effect of sintering condition on microstructural and mechanical properties of porous Nickel, Akram Salehi, Ahmad Moloodi, Faezeh Barzegar, Jalal Mirabbasi, The 10<sup>th</sup> International conference on porous metals and metallic foams, 14-17 September 2017, Nanjing, China.
- On the role of both vacuum system and initial size on fabrication of Aluminum-Leca composite foam, Ahmad Moloodi, Mohammad Reza Moradi, The 10<sup>th</sup> International conference on porous metals and metallic foams, 14-17 September 2017, Nanjing, China.
- An investigation of using sodium nitrate as a foaming agent of production close cell aluminum foam via Powder-Compact Foaming Technique, A. Moloodi, A. Babakhani, M. Haddad Sabzevar, Proceedings of Iran International Aluminium Conference (IIAC2016)May 11-12, 2016, Tehran, I.R. Iran
- A study on the effective parameters in fabrication the nano-composite Al-B<sub>4</sub>C foam produced by powder metallurgy-space holder technique, Mohammad Reza Moradi, Ahmad

Moloodi, Ali Habibolahzadeh, 6th International Conference on Nanostructures (ICNS6), 7-10 March 2016, Kish Island, Iran.

- The response of osteoblasts to nanocrystalline coated fluorohydroxyapatite thin films on Ti scaffolds, A. Salehi, S. Nokhasteh, M.S. Abravi, H. AminiMashhadi, F. Barzegar, A. Moloodi, 6th International Conference on Nanostructures (ICNS6), 7-10 March 2016, Kish Island, Iran.

- Fabrication of Nano-composite Al-B<sub>4</sub>C foam via powder metallurgy-space holder technique, Mohammad Reza Moradi, Ali Habibolahzadeh, Ahmad moloodi, 5th International Biennial Conference on Ultrafine Grained and Nanostructured Materials, UFGNSM15, 11-12 November 2015, Tehran, Iran.

- On the role of aluminum powder on production copper foam by turning chips, M. Haddad Sabzevar, A. Moloodi, A. Babakhani, Cellular Materials - CELLMAT 2012, 7-9 November 2012 in Dresden, Germany.

- An investigation of production Al-Al<sub>2</sub>O<sub>3</sub> composite foam via SHS, A. Moloodi, A. Babakhani, M. Haddad Sabzevar, Cellular Materials - CELLMAT 2012, 7-9 November 2012 in Dresden, Germany.

- An Investigation of aluminum foam produced by sintering evaporation process, A. Moloodi, A. Babakhani, M. Haddad Sabzevar, Proceedings of Iran International Aluminum Conference (IIAC2012) May 15-16, 2012, Arak, I.R. Iran.

- On the role of filler materials on physical and mechanical properties of aluminum foam produced by SDP, A. Babakhani, A. Moloodi, Cellular Materials, 27-30 October 2010, Dresden, Germany.

- An investigating on production copper foam by turning chips via LCS and reinforced by Cu-Al<sub>2</sub>O<sub>3</sub> nanocomposites, I. Farahbakhsh, A. Moloodi, M. S. Abravi, The 6<sup>th</sup> International Chemical Engineering Congress & Exhibition (ICChEC 2009), 16- 20 November 2009, Kish Island, I.R.Iran.

- A study of copper composite foam produced by SHS, A. Moloodi, R. Raiszadeh, J. Vahdati Khaki, A. Babakhani, The 6th International conference on porous metals and metallic foams, 1-4 September 2009, Bratislava, Slovakia.

- Recycling of aluminum turning scraps to metal foams via SDP, A. Moloodi, R. Raiszadeh, H. Amini, M.S. Abravi, The 6th International conference on porous metals and metallic foams, 1-4 September 2009, Bratislava, Slovakia.

- Innovative processing of porous copper composite by chemical reaction, A. Moloodi, R. Raiszadeh, J. Vahdati Khaki, A. Babakhani, INTERNATIONAL SYMPOSIUM FOR RESEARCH SCHOLARS ON METALLURGY, MATERIALS SCIENCE & ENGINEERING, ISRS, 10 – 12 DECEMBER 2008, Madras, India.

- Recycling of aluminium alloy turning scrap via cold pressing and melting with salt flux, Abolfazl Babakhani, Ahmad Moloodi, Hossein Amini, International Conference on Aluminium Alloys, ICAA11 22 – 26. September 2008 in Aachen, Germany.

- On the role of both salt flux and cold pressing on physical and mechanical properties of aluminum alloy scraps, Ahmad Moloodi, Hossein Amini, 14th INTERNATIONAL

METALLURGY AND MATERIALS CONGRESS, 16-18 OCTOBER, IMMC 2008, Istanbul, Turkey.

- Assessing the accuracy of SPH and FDM to simulate the die filling process in gravity die casting, Ahmad Moloodi, Ramin Raiszadeh, 14th INTERNATIONAL METALLURGY AND MATERIALS CONGRESS, 16-18 OCTOBER, IMMC 2008, Istanbul, Turkey.

- Assessing the accuracy of simulation of gravity casting systems using FDM AND FEM, Ahmad Moloodi, Mohmmad Reza Izadpanah, 14th INTERNATIONAL METALLURGY AND MATERIALS CONGRESS, 16-18 OCTOBER, IMMC 2008, Istanbul, Turkey.