

# Mohammad-Amin Jabbareh



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## EDUCATION

2008 - 2013

### Doctor of Philosophy

Metallurgy and Materials Engineering  
Tarbiat Modares University, Tehran, Iran.

**Thesis Title:** *Modeling of grain structure and solute segregation in laser surface melting process using phase field method*

**Supervisor:** Hamid Assadi

2006 - 2008

### Master of Science

Materials Engineering  
Tarbiat Modares University, Tehran, Iran.

**Thesis Title:** *Modeling of microstructure evolution in transient liquid phase bonding under temperature gradient using phase field method*

**Supervisor:** Hamid Assadi

2002 - 2006

### Bachelor of Science

Materials Engineering  
Tehran University, Tehran, Iran.

## RESEARCH INTERESTS

- Simulation of microstructure evolution
- Simulation of materials processing
- Computational thermodynamics

## SELECTED PUBLICATIONS

- Mohammad Hassan Daneshifar, **Mohammad Amin Jabbareh**: *Numerical Modeling of the Complex Link Between Grain Refinement and Microsegregation in Binary Alloy Solidification*. Metallurgical and Materials Transactions A (2020) DOI: <https://doi.org/10.1007/s11661-021-06486-0>
- **Mohammad Amin Jabbareh**, Hamid Assadi: *Modelling of Microstructure Evolution during Laser Processing of Intermetallic Containing Ni-Al Alloys*. Metals 11 (2021) 1051.
- Ali Abootorabi, Bahman Korojy, **Mohammad Amin Jabbareh**: *Effect of mould design on the Niyama criteria during solidification of CH3C 80t ingot*. Ironmaking & Steelmaking 47 (2020) 722.
- Fatemeh Monji, **Mohammad Amin Jabbareh**: *Thermodynamic model for prediction of binary alloy nanoparticle phase diagram including size dependent surface tension effect*. Calphad 58 (2017) 1.
- **Mohammad Amin Jabbareh**: *Size, shape and temperature dependent surface energy of binary alloy nanoparticles*. Applied Surface Science 426 (2017) 1094.
- **Mohammad Amin Jabbareh**, Hamid Assadi: *Modeling of Grain Structure and Heat-Affected Zone in Laser Surface Melting Process*. Metallurgical and Materials Transactions B 44 (2013) 1041.
- Iraj Hadi, **Mohammad Amin Jabbareh**, Roghayeh Nikbakht, Hamid Assadi: *Modelling of Microstructure Evolution during Thermal Processes – A Hybrid Deterministic-Probabilistic Approach*. Materials Science Forum 704-705 (2012) 63.
- **Mohammad Amin Jabbareh**, Hamid Assadi: *Modelling of microstructure evolution in transient-liquid-phase diffusion bonding under temperature gradient*. Scripta Materialia 60 (2009) 780.

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- SELECTED PRESENTATIONS**
- Sara Mohtadi, **Mohammad Amin Jabbareh**, Bahman Korojy: *Design of lightweight eutectic entropic alloys using computational thermodynamics*. 10<sup>th</sup> International Conference on Engineering Materials and Metallurgy (2021) Tehran, Iran.
  - **Mohammad Amin Jabbareh**, Mohammad Hassan Daneshifar: *Thermodynamic modeling of the melting temperature of bulk nanostructured metals*. 9<sup>th</sup> International Conference on Engineering Materials and Metallurgy (2020) Tehran, Iran.
  - Fatemeh Monji, Mina Moshakhas, Marzieh Elhami, **Mohammad Amin Jabbareh**, Mohammad Hassan Daneshifar: *Thermodynamic modeling of binary nano-alloys phase diagram*. 7<sup>th</sup> International Conference on Engineering Materials and Metallurgy (2018) Tehran, Iran.
  - **Mohammad Amin Jabbareh**: *Studying the effect of overlapping factor and pulse frequency on melt pool grain structure in pulsed laser surface melting process using phase field method*. 5<sup>th</sup> International Conference on Engineering Materials and Metallurgy (2016) Shiraz, Iran.
  - Ali Abotorabi, Bahman Korojy, **Mohammad Amin Jabbareh**: *Numerical study on the effect of mold design on central shrinkage of 80-Tone steel ingots*. 3<sup>rd</sup> International Conference on Engineering Materials and Metallurgy (2014) Tehran, Iran.

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<b>EMPLOYMENT HISTORY</b>	<b>2006 - Present</b>	Assistant Prof. Hakim Sabzevari University, Sabzevar, Iran.
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<b>TEACHING EXPRIENCE</b>	<b>2002 - 2004</b>	<b>Guest lecturer (Islamic Azad University)</b> ▪ Delivering sessions for courses in Materials Engineering for undergraduate students.
	<b>2004 - Present</b>	<b>Assistant Prof. (Hakim Sabzevari University)</b> ▪ Courses : Crystallography - Physical Metallurgy (BSc) Phase Transformations – Diffusion in Solids (MSc) Multi-Component Systems (PhD)  ▪ Supervising graduate dissertations

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