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10

Citations (Scopus):

335

Supervised PhD Theses

#	Thesis title	By	Date
1	Investigation of dynamic and quasi-static energy absorption behavior of layered metallic Al, A356 and Zn foams in the thin walled structures for the improvement of energy absorbing system	Mina Salehi & Seyed Mohammad H. Mirbagheri	July 2020

Supervised MSc Theses

#	Thesis title	By	Date
1	Investigation Of Micro-structure And Tensile Properties Of Zamak Composite Reinforced By A 3-D Open-Cell Nickel Foam	Mehrnoosh Hosseinpour & Seyed Mohammad H. Mirbagheri	March 2022
2	Analysis of tensile behavior mechanism of casting parts by ablation method with aided dendritic	Reza Rezaei & Seyed Mohammad H. Mirbagheri	October 2021
3	Investigation of tensile behavior of Aluminium Silicon alloy produced by ablation and rotary casting simultaneously	Mehran Norouzinejad & Seyed Mohammad H. Mirbagheri	January 2020
4	Producing open-cell nickel foam and measuring its specific surface area and thermal efficiency	Ehsan Abdi Bejandi & Seyed Mohammad H. Mirbagheri	September 2019
5	Modeling of conner -block section for eliminating of shrinkage in the grey iron casting	Sina Balouti & Seyed Mohammad H. Mirbagheri	July 2019

6	Production and investigation of Al-3D netweb Cu composite mechanical properties	Mahsa Shahsavan & Seyed Mohammad H. Mirbagheri	December 2018
7	Production of aluminium foam sandwich panel and evaluation of behavior in three points bending test	Sevag Mkrichians & Seyed Mohammad H. Mirbagheri	September 2018
8	Technical development of producing the open cell foams upon the polymeric porous precursor and fluid flow simulation	Samaneh Heidaryan & Seyed Mohammad H. Mirbagheri	July 2017
9	Assessment of Compressive response of functionally graded foam filled tubes and numerical simulation	Mahsa Arabkoohi Chatabi & Seyed Mohammad H. Mirbagheri	September 2016
10	Evaluation of quasi-static buckling of Aluminum foam crash box	Samaneh Vali Khany & Seyed Mohammad H. Mirbagheri	October 2014
11	Investigation of micro-structure and mechanical properties for optimization of HFW condition for manufacturing gas pipelines	Ali Kavousi Sisi & Seyed Mohammad H. Mirbagheri	October 2014
12	Simulation of grain growth in welding zone for Al-1xxx	Ali Mohammadyousefi & Seyed Mohammad H. Mirbagheri	June 2014
13	Assessment of effective parameters in brazing process on dissimilar joining Ti-6Al-4V to stainless steel 316L alloys by infrared furnace	Amin Samadi Moghaddam & Seyed Mohammad H. Mirbagheri	October 2013
14	Structural Assesment of die cast welding	Mohsen Karami & Seyed Mohammad H. Mirbagheri	May 2013
15	Investigation of thermal fatigue for copper-sheets jointed by brazing process	Mehdi Tajfar & Seyed Mohammad H. Mirbagheri	October 2012
16	Simulation of Distortion in and Residual Stress of Fusion Welding and Effect of Phase transformation on Structural Steel	Amir Sadat & Seyed Mohammad H. Mirbagheri	October 2012
17	Design of aluminium foam-filled crash boxes and the study of effective parameters on their energy absorption	Mohammadjavad Khadjehalichaleshtari & Seyed Mohammad H. Mirbagheri	January 2012
18	FSSW(Friction Stir Spot Welding) and Resistant Spot welding of Aluminum and study their mechanical and metallurgical properties	Reza Yazdanpanah Samani & Seyed Mohammad H. Mirbagheri	October 2011
19	Modeling	Milad Daneshmand & Seyed Mohammad H. Mirbagheri	February 2011
20	Mathematical	Seyed Yousef Tabatabaei Majd & Seyed Mohammad H. Mirbagheri	February 2011
21	Improvement resistance to thermal shock of copper by low alloying	Abuzar Mirzayee & Seyed Mohammad H. Mirbagheri	June 2010
22	production and investigation of properties for Al/TiB2 foam MMC	Reza Pourgholam & Seyed Mohammad H. Mirbagheri	June 2010
23	Effect of Micro Structure of low Alloy steel on Mechanical and abrasinal properties	Valleh Behrojanyar & Seyed Mohammad H. Mirbagheri	January 2010
24	The effects of austempering temperature and time , and quenching temperature on the structure and mechanical properties of austempered ductile irons (ADI)	Kajal Sohrabi & Seyed Mohammad H. Mirbagheri	February 2009
25	casting of A356/TiB2pcomposite based on the TiB2/CMC/PPS mortar	Mohammad Hizombar & Seyed Mohammad H. Mirbagheri	February 2009
26	production of nano- structured IF steels via thermo mechanical treatment using warm brushing	Mohammad Nasirizadeh & Seyed Mohammad H. Mirbagheri	January 2009

Books

#	Title	Author(s)	Publisher country	publication date	version
Portal Records					
1	Alloys solidification, volume 1	Seyed Mohammad H. Mirbagheri	Iran (Islamic Republic of)	March 2020	1
2	Identification and selection of steel and Iron: A Manual to Key to steel	Ali Akbarkhamei, Seyed Mohammad H. Mirbagheri, Omid Bolhasanu	Iran (Islamic Republic of)	June 2018	1
3	Foundry processes simulation	Ahmad Bahmani, Amir Baghani, Seyed Mohammad H. Mirbagheri, Parviz Davami	Iran (Islamic Republic of)	June 2017	1
4	Computational Fluid Dynamics Technologies and Applications	Seyed Mohammad H. Mirbagheri, Hossein Bayani, Mojtaba Barzegari Shankil, Sadegh Firoozi	Slovakia (Slovak Republic)	July 2011	1

Journal Papers

Portal Records

- Azin Alesafar, Seyed Mohammad H. Mirbagheri, "The Desired Strength of Al-Si-Cu Alloy Closed Cell Foam and Its Comparing with the Strength of Ship's Fresh Bone", , March 2022 Vol. 1, Num. 33, Page 25-48, March 2022,
- Maryam Torfeh, Seyed Mohammad H. Mirbagheri, J. Cormier,, Jamshid Aghazadeh Mohandesi, Soheil Nokhodachi, "Intermediate temperature creep damage mechanisms of a directionally solidified Ni-based superalloy", MATERIALS AT HIGH TEMPERATURES, March 2022 Vol. 2, Num. 1, Page 1-13, March 2022,
- Mina Salehi, Seyed Mohammad H. Mirbagheri, Amin Jafari Ramiani, "Experimental, Theoretical, and Numerical Investigations into the Compressive Behavior of Multi-layer Metallic Foam Filled Tubes", JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, January 2022 Vol. 31, Num. 1, Page 1-18, January 2022,
- Seyed Mohammad H. Mirbagheri, Mina Salehi, "Complementary and normalized energies during static and dynamic uniaxial deformation of single and multi-layer foam-filled tube", JOURNAL OF SANDWICH STRUCTURES & MATERIALS, December 2021 Vol. 1, Num. 21, Page 1-21, December 2021,
- Mina Salehi, Seyed Mohammad H. Mirbagheri, Amin Jafari Ramiani, "Efficient energy absorption of functionally-graded metallic foam-filled tubes under impact loading", TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA, January 2021 Vol. 31, Num. 1, Page 92-110, January 2021,
- Seyed Mohammad H. Mirbagheri, Mina Salehi, Amin Jafari Ramiani, "Plastic deformation modeling of foam-filled tubes with multi-layer foams during compression loading", Iranian journal of Materials Forming, October 2019 Vol. 6, Num. 2, Page 62-81, October 2019,
- Mina Salehi, Seyed Mohammad H. Mirbagheri, Mahsa Arabkoohi Chatabi, "Compressive and Energy Absorption Behavior of Multilayered Foam Filled Tubes", METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, September 2019 Vol. 50, Num. 0, Page 1-16, September 2019,
- Sevag Mkrtychians, Seyed Mohammad H. Mirbagheri, "Investigation of bending test (3 points) for sandwich panel with A356 Alloy Foam", New Materials, June 2019 Vol. 9, Num. 3, Page 129-138, June 2019,

- 9 Maryam Torfeh, Seyed Mohammad H. Mirbagheri, Jamshid Aghazadeh Mohandesi, "Investigation of Heat Transfer Coefficients Effects in Directional Solidification of GTD111 Super-Alloy", *Founding Research Journal*, June 2019 Vol. 3, Num. 1, Page 11-20, June 2019,
- 10 Mojtaba Barzegari Shankil, Hossein Bayani, Seyed Mohammad H. Mirbagheri, Hasan Shetabivash, "Multiphase aluminum A356 foam formation process simulation using lattice Boltzmann method", *Journal of Materials Research and Technology*, March 2019 Vol. 8, Num. 1, Page 1258-1266, March 2019,
- 11 Hossein Bayani, Seyed Mohammad H. Mirbagheri, "Multiphase Simulation of Aluminum A356 Metal Foam Formation Process by Lattice Boltzmann Method", , October 2018 Vol. 50, Num. 4, Page 741-754, October 2018,
- 12 Mahsa Shahsavan, Seyed Mohammad H. Mirbagheri, "Production of open-cell copper foam and assessment of foam substructure", *New Materials*, May 2018 Vol. 8, Num. 31, Page 1-16, May 2018,
- 13 Maral Afshar, Seyed Mohammad H. Mirbagheri, Nima Movahedi, "Effect of SiC particle size on the mechanical properties of closed aluminum foams", *MATERIALS TESTING-MATERIALS AND COMPONENTS TECHNOLOGY AND APPLICATION*, March 2018 Vol. 59, Num. 6, Page 571-574, March 2018,
- 14 Saeid Talebi, Mojtaba Sadighi, Mohammad Mohammadi Aghdam, Seyed Mohammad H. Mirbagheri, "Micro-macro analysis of closed-aluminum foam with crushing behavior subjected to dynamic loadings", *Materialstoday Communications*, October 2017 Vol. 13, Num. 13, Page 170-177, October 2017,
- 15 Seyed Mohammad H. Mirbagheri, Hamed Vali, Hossein Soltani, "Heat Treatment of Closed-Cell A356 + 4 wt.%Cu + 2 wt.%Ca Foam and Its Effect on the Foam Mechanical Behavior", *JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE*, November 2016 Vol. 26, Num. 185, Page 14-27, November 2016,
- 16 Mohammad Javad Nayyeri, Seyed Mohammad H. Mirbagheri, "Evaluation of failure mechanisms of high strength tailor made metallic foams(TMFS)", *MATERIALS LETTERS*, September 2016 Vol. 185, Num. 0, Page 89-91, September 2016,
- 17 Mohammad Javad Nayyeri, Mohammadjavad Khadjehalichaleshtari, Seyed Mohammad H. Mirbagheri, "QUASI STATIC COMPRESSIVE BEHAVIOR OF AL-SI-SIC-XFE FOAM FILLED CRASH BOXES", *JOURNAL OF METALLURGICAL AND MATERIALS ENGINEERING (JOURNAL OF SCHOOL OF ENGINEERING)*, March 2016 Vol. 27, Num. 2, Page 9-23, March 2016,
- 18 Mohammad Javad Nayyeri, Seyed Mohammad H. Mirbagheri, Davoud Haghshenas, "Compressive behavior of tailor-made metallic foams (TMFs): Numerical simulation and statistical modeling", *MATERIALS & DESIGN*, November 2015 Vol. 84, Num. 84, Page 223-230, November 2015,
- 19 Mohammad Javad Nayyeri, Seyed Mohammad H. Mirbagheri, Sajjad Amir Khanlou, "High strength tailor-made metallic foams (TMFs): Development and characterization", *MATERIALS LETTERS*, September 2015 Vol. 154, Num. 154, Page 152-155, September 2015,
- 20 S. Serajzadeh, S. Ranjbar Motlagh, Seyed Mohammad H. Mirbagheri, J.M. Akhgar, "Deformation behavior of AA2017-SiCp in warm and hot deformation regions", *MATERIALS & DESIGN*, December 2014 Vol. 67, Num. 67, Page 318-323, December 2014,
- 21 Seyed Mohammad H. Mirbagheri, Mohammadjavad Khadjehalichaleshtari, "The Effect of Fe Additive on Plastic Deformation for Crush-Boxes with Closed-Cell Metal Foams, Part II: Al-Composite Foam-Filled brass tubes Compression Response", *Iranian journal of Materials Forming*, October 2014 Vol. 1, Num. 2, Page 23-31, October 2014,
- 22 Nima Movahedi, Seyed Mohammad H. Mirbagheri, S.R. Hosseini, "Effect of foaming temperature on the mechanical properties of produced closed-cell A356 Aluminum foam with melting method", *METALS AND MATERIALS INTERNATIONAL*, August 2014 Vol. 20, Num. 4, Page 757-763, August 2014,
- 23 Mohammad Javad Nayyeri, Samaneh Vali Khany, Seyed Mohammad H. Mirbagheri, "Aluminum casting on an ordered substrate of polymeric spheres for the preparation of closed cell aluminum foam", , July 2014 Vol. 105, Num. 105, Page 2-12, July 2014,
- 24 Seyed Mohammad H. Mirbagheri, Mohammadjavad Khadjehalichaleshtari, "The Effect of Fe Additive on Plastic Deformation for Crush-Boxes with Closed-Cell Metal Foams, Part I: Al-Composite Foam Compression Response", *Iranian journal of Materials Forming*, June 2014 Vol. 1, Num. 1, Page 32-45, June 2014,
- 25 Seyed Mohammad H. Mirbagheri, Reza Pourgholam, "Casting of closed-cell foam A356 by adding of Silicon rubber-dolomite-Al and assesment of its behavior", , March 2014 Vol. 32, Num. 103, Page 38-51, March 2014,

- 26 Seyed Mohammad H. Mirbagheri, Hossein Bayani, M.Barzegari, "Micro shrinkages simulation in mushy zone by permeability calculation", , September 2013 Vol. 32, Num. 102, Page 42-51, September 2013,
- 27 Nima Movahedi, Seyed Mohammad H. Mirbagheri, Reza Hosseini, "Effect of casting parameters on the plastic deformation of 356 Aluminum foam during uniaxial compression test", , June 2013 Vol. 32, Num. 101, Page 34-45, June 2013,
- 28 Reza Razavinezhad, Sadegh Firoozi, Seyed Mohammad H. Mirbagheri, "Effect of Titanium Addition on As Cast Structure and Macroseggregation of High-Carbon High-Chromium Steel", STEEL RESEARCH INTERNATIONAL, April 2012 Vol. 0, Num. 0, Page 0-0, April 2012,
- 29 Seyed Mohammad H. Mirbagheri, Reza Tafteh, Kasra Sardashti, "Assessment of TiH₂ and CaCO₃ blowing agents on structure and properties of Al7%Si-3%SiC composite foam", , April 2012 Vol. 30, Num. 1, Page 57-73, April 2012,
- 30 Mojtaba Barzegari Shankil, Seyed Mohammad H. Mirbagheri, "assessment of the slope and cross-section of ingate on the pressure and flow pattern using finite volume method", , June 2011 Vol. 22, Num. 2, Page 21-36, June 2011,
- 31 Amir Abedi, Pirooz Marashi, Kajal Sohrabi, Seyed Mohammad Marvastian, Seyed Mohammad H. Mirbagheri, "The effect of heat treatment parameters on microstructure and toughness of autempered ductile iron (ADI)", Advanced Materials Research (AMR), June 2011 Vol. 264-265, Num. 1, Page 409-414, June 2011,
- 32 Seyed Mohammad H. Mirbagheri, M. Bari, Negar Ashari Astani, "Thermal fatigue mechanism in the GG25 Gray Iron", journal of school of engineering, February 2010 Vol. 21, Num. 1, Page 23-39, February 2010,
- 33 Seyed Mohammad H. Mirbagheri, Maryam Majidian, "effect of cooling rate and H₂ gas on the dendritic distance and mechanical properties of Al-composite", journal of school engineering, February 2010 Vol. 21, Num. 1, Page 56-61, February 2010,
- 34 Seyed Mohammad H. Mirbagheri, "Erratum to: Modeling of the Equiaxed Dendrite Coarsening Based on the Interdendritic Liquid Permeability during Alloy Solidification", METALLURGICAL AND MATERIALS TRANSACTIONS B-PROCESS METALLURGY AND MATERIALS PROCESSING SCIENCE, December 2009 Vol. 41, Num. 1, Page 255-256, December 2009,
- 35 Seyed Mohammad H. Mirbagheri, "Modelling and Simulation of Equiaxed Dendritic Structures Permeability for PB-Sn Alloys", , December 2008 Vol. , Num. 24, Page 0-0, December 2008,
- 36 Seyed Mohammad H. Mirbagheri, [en-name N/A], "Production of A356-SiCp Composite by an Innovative Casting Process", , August 2008 Vol. , Num. 43, Page 0-0, August 2008,
- 37 Seyed Mohammad H. Mirbagheri, "Modeling of The Equiaxed Dendrite Coarsening Based on The Interdendritic Liquid Permeability During Alloy Solidification", , June 2008 Vol. , Num. 0, Page 0-0, June 2008,
- 38 Seyed Mohammad H. Mirbagheri, "Modeling of effect of the ferrous chills and pressure on the heat transfer coefficient in metal-reheated chill interface", , March 2008 Vol. , Num. 62, Page 0-0, March 2008,
- 39 [en-name N/A], Seyed Mohammad H. Mirbagheri, [en-name N/A], "Modeling of permeability with the aid of 3D interdendritic flow simulation for equiaxed dendritic structures", , February 2008 Vol. , Num. 475, Page 0-0, February 2008,
- 40 [en-name N/A], Seyed Mohammad H. Mirbagheri, "Study on Microstructural Events During Hot Rod Rolling of Steels Using Mathematical Modelling", , January 2008 Vol. , Num. 2, Page 0-0, January 2008,
- 41 Seyed Mohammad H. Mirbagheri, "Simulation of Si concentration effect on the permeability for columnar dendrite structures during solidification of Al-Si alloy", , December 2007 Vol. , Num. 28, Page 0-0, December 2007,
- 42 Seyed Mohammad H. Mirbagheri, [en-name N/A], "Modeling of Metal-Static Pressure on The Metal -Mould Interface Thermal Resistance in The Casting Process", , March 2007 Vol. , Num. 28, Page 0-0, March 2007,
- 43 Seyed Mohammad H. Mirbagheri, "Modelling of metal-mould interface resistance in the AL-11.5%Sa Aluminium alloy casting process", , September 2006 Vol. , Num. 9, Page 0-0, September 2006,
- 44 Seyed Mohammad H. Mirbagheri, Ali Chirazi, "simulation of interdendritic liquid permeability for low and high solid fractions during The solidification of mushy alloys", , August 2006 Vol. , Num. 427, Page 0-0, August 2006,
- 45 Seyed Mohammad H. Mirbagheri, "Modelling of metal-mold interface resistance in the A356 Aluminium alloy casting process", , August 2006 Vol. , Num. 1, Page 0-0, August 2006,

- 46 [en-name N/A], Seyed Mohammad H. Mirbagheri, "A model for determination of austenite decomposition kinetics during continuous cooling on the run-out table", , January 2006 Vol. , Num. 14, Page 0-0, January 2006,
- 47 Seyed Mohammad H. Mirbagheri, Ali Chirazi, "modeling of the permeability for columnar dendrite structures during solidification of Mushy Alloys", , May 2005 Vol. , Num. 3, Page 0-0, May 2005,
- 48 Seyed Mohammad H. Mirbagheri, "Modelling of foam degradation in lost foam casting process", , December 2004 Vol. , Num. 39, Page 0-0, December 2004,
- 49 Seyed Mohammad H. Mirbagheri, "Modeling The Effect of Mould Wall Roughness on The Melt Flow Simulation in Casting Process", , January 2004 Vol. , Num. , Page 0-0, January 2004,
- 50 [en-name N/A], Seyed Mohammad H. Mirbagheri, "Modelling of Metal Flow During Hot Forging With Regard to Microstructural Aspects", , January 2004 Vol. , Num. , Page 0-0, January 2004,
- 51 Seyed Mohammad H. Mirbagheri, "Simulation of Surface Roughness on The Flow Pattern in The Casting Process", , January 2004 Vol. , Num. , Page 0-0, January 2004,
- 52 Seyed Mohammad H. Mirbagheri, "Simulation of mould filling in lost foam casting process", , January 2003 Vol. , Num. 5, Page 0-0, January 2003,
- 53 Seyed Mohammad H. Mirbagheri, "3D Computer Simulation of Melt Flow and Heat Transfer in The Lost Foam Casting Process", , January 2003 Vol. , Num. 1, Page 0-0, January 2003,
- 54 Seyed Mohammad H. Mirbagheri, "Simulation of Melt Flow in Coated Mould Cavity in The Casting Process", , January 2003 Vol. , Num. 142, Page 0-0, January 2003,










Conference Papers

Portal Records

- 1 Samaneh Heidaryan, Seyed Mohammad H. Mirbagheri, Milad Rezaei, Mohsen Ostadshabani, "Investigation of the permeability and surface area of a copper open-cell foam produced by polymeric precursor ", 8th Iran International Conference & Exhibition on Materials Science & Metallurgical Engineering, October 2019
- 2 H. Hematzadeh Dastjerdi, V. Ostadshabani, Y. Shajari, Seyed Mohammad H. Mirbagheri, "Effect of cooling rate on the solid-solution of IN718 by SLM ", imat2018, October 2018
- 3 Amin Jafari Ramiani, Seyed Mohammad H. Mirbagheri, Mohammad Mahdi Izadi, Javad Zarei, "NUMERICAL CALCULATION OF CHARGE WEIGHT FOR MELTING STEEL IN INDUCTION FURNACE: COMPARISON OF OPTIMIZATION FOR MINIMUM PRICE AND CLASSICAL MASS BALANCE ", Iran Steel Symposium, February 2018
- 4 Hossein Bayani, Mojtaba Barzegari Shankil, Seyed Mohammad H. Mirbagheri, "Investigation of computational and experimental of merging of two baubles in molten metal ", ISME2017-1682, May 2017
- 5 Maral Afshar, Seyed Mohammad H. Mirbagheri, "Comparison of mechanical properties of reinforced closed cell aluminium foam with nano and micro particles of silicon carbide ", 3rd International Engineering Materials & metallurgy, November 2014
- 6 Hossein Soltani, Hamed Vali, Seyed Mohammad H. Mirbagheri, "Effect of ageing heat treatment on the mechanical behavior of Cu rich A356 metal foam ", 3rd International Engineering Materials & metallurgy, November 2014
- 7 Nima Movahedi, Maral Afshar, Seyed Mohammad H. Mirbagheri, "The effect of micro and nano scale SiC reinforcements on the mechanical and energy absorption behaviour of produced Aluminium foams with PM ", (Iran International Aluminum Conference (IIAC2014, May 2014
- 8 Mohammad Hizombar, Seyed Mohammad H. Mirbagheri, A.Rezaie, Reza Abdideh, "investigation of effective parameters in production of A356/TiB2 composite using TiB2/CMC/PPS mortar ", processing and properties of advanced ceramics and composite IV, January 2013
- 9 Mohsen Seifi, Seyed Yousef Tabatabaei Majd, Seyed Mohammad H. Mirbagheri, Reza Tafteh, "effects of addition of SiC and TiB2 particles on structural and mechanical properties of PM Al-Si Foams ", materials science & technology conference and exhibition 2011, October 2012

- 10 Seyed Mohammad H. Mirbagheri, Reza Pourgholam, S.H. Mirdamadi, "produce A356 Aluminum alloy foam by using silicon rubber granules ", new and advanced materials international congress, April 2012
- 11 Reza Razavinezhad, Sadegh Firoozi, Seyed Mohammad H. Mirbagheri, Hamid Keshmiri, "Microstructure modification of high-chromium, high carbon steel by addition of titanium ", Steel Symposium 89, March 2011
- 12 Mohamd Khodaei, Seyed Mohammad H. Mirbagheri, "Behavior genetrated Gas in lost foam casting ", world academy of science Engineering and technology, February 2011
- 13 Kasra Sardashti, M.Mohamadpour, Seyed Mohammad H. Mirbagheri, M.Ghambari, "fabrication of aluminum based composite foam by PM route using the blowing agent CaCO3 ", the 2nd international conference on composite: characterization, Fabrication and Application(CCFA-2), December 2010
- 14 Seyed Mohammad H. Mirbagheri, [en-name N/A], "Modeling of the polystyrene degradation and simulation of mould filling in the full mould casting process ", , August 2007

Taught Courses

#	Course title	Description	Headlines	Date
1	Physical Metallurgy (I)	1-Introduction to the Atomic Structure and Defects of Metal Crystal Lattices 2- Understanding the Relationship between Structure and Properties of Materials and Phase Transformations 3- Introduction to Equilibrium Phase Diagrams and Developing Skills		Spring 2022
2	Solidification of Metals	Introdction to liquid metalsT solidification process and solidification microstructure		Spring 2022
3	Casting & Solidification Lab	1- Practical Learning of Different Types of Sand Based Moulding Materials Tests, Mastering Sand Molding Processes, Types of Casting Processes 2- Observing and Learning the Influence of Affecting Parameters on Grain and Phase Structure of Metals Durin		Spring 2022
4	Casting & Solidification Lab	1- Practical Learning of Different Types of Sand Based Moulding Materials Tests, Mastering Sand Molding Processes, Types of Casting Processes 2- Observing and Learning the Influence of Affecting Parameters on Grain and Phase Structure of Metals Durin		Fall 2021
5	Solidification of Metals	Introdction to liquid metalsT solidification process and solidification microstructure		Fall 2021
6	Design of Engineering Materials	Fundamentals of engineered materials design and selection based on the performance		Fall 2021
7	Solidification Phenomena	Analysis of heat transfer during casting and segregation during non-equilibrium solidifications		Fall 2021
8	Physical Metallurgy II	The main emphasis of this course is to create a physical basis which relates the structure of the materials, particularly, the metals, to their properties.		Spring 2021
9	Casting	1- Practical Learning of Different Types of Sand Based Moulding Materials Tests, Mastering Sand Molding Processes, Types of Casting Processes 2- Observing and Learning the Influence of Affecting Parameters on Grain and Phase Structure of Metals Durin		Spring 2021



Inventions/Patents

#	Invention title	Reg. number	Country	contributors	Reg. date	Exp. date
1	production of metal foam by using of mixture of silicon rubber and liquid AP.	388040110			2009/06/1	2029/06/1
2	production of anti-oxidation coating at 850 oc.	288020848			2009/05/1	2029/05/1
3	production of carbon - stop during of car boyrisation based on alternative hardness.	288020850			2009/05/1	2029/05/1
4	production of anti-Nitrosation at gas-N2 atmosphere.	88020849			2009/05/1	2029/05/1
5	production of Al-AI-Si-SiC-Mg composite foam by melting of the powder	38707430			2008/10/1	2028/10/1