



## CV

**Name :** Mohammad

**Surname :** Esmailian

**Degree :** Ph.D

**Affiliation :** Iranian Research Organization for Science and Technology (IROST)

**Contact Address :**

Dept. of Advanced Material and Renewable Energy

IROST

**P.O.Box :** 15815-3538

Tehran, IRAN

**Email :** [m\\_esmailian@yahoo.com](mailto:m_esmailian@yahoo.com)

[m.esmailian@irost.org](mailto:m.esmailian@irost.org)

**Tel/ Fax :** 00982156276635

### 1- Educational Background

Degree	Field of Study	Date	Place
B.S	Materials Science	1987	Science and Technology University Tehran, <b>IRAN</b>
M.SC	Identification and Selection of Materials	2000	Science and Technology University Tehran, <b>IRAN</b>
Ph.D	Microalloyed steels	1998	Sheffield University, Sheffield, <b>UK</b>

### 2- Work History

Position	Date year	Institute	Place
Research Assistant	From 2000 until now	IROST	Tehran- Iran
Research Assistant	From 1999-2003	Iran Railway Research Centre	Tehran- Iran
Quality Control Manager	From 1989-1993	Ministry of Commerce	Tehran- Iran
Research Staff	From 1991-1993	Science and Technology University	Tehran- Iran
Head of Metallurgy committee of Khwarizmi International Award	From 2004-2006	IROST	Tehran- Iran
Head of Advanced Materials and Renewable Energy Dept.	From 2006- 2009 From 2012- 2014	IROST	Tehran- Iran
Head of Metallurgy group, Advanced Materials and Renewable Energy Dept.	From 2015 until now	IROST	Tehran- Iran

### 3- Teaching Experience

Courses	Name of University or Institute	Place
Moulding Material	Science and Technology University	Tehran- Iran
Mechanical Properties	Science and Technology University	Tehran- Iran
Welding Metallurgy	Azad University and Arak University	Saveh- Arak
Design Principles of mould and pattern	Azad University and Arak University	Saveh- Arak
Extraction of Steels	Azad University	Saveh
Phase Transformation	Azad University	Saveh
Material Science	Arak University	Saveh
Welding ( Different subjects)	Iranian Welding Research& Engineering Center	Tehran- Iran

### 4- Industrial Experience

5 Years experience in quality control laboratory in commerce ministry related to selection, identification and characterization of materials and consulting to industry.

3 years experience in Iranian railway research centre as research assistant

### 5- Publications

#### 5-1: Conference Papers

1- The effect of austenite grain size and cooling rate on the different ferrite morphologies in HSLA steels, steel symposium, 2001, Isfahan, Iran.

2- The effect of austenite grain size on the ferrite transformation temperature in C-Mn and microalloyed steels, Thermo Mechanical Processing Conferences, Sheffield U.K, 2002.

3- The effect of Ti as a trace element on the mechanical properties of direct austempered ductile irons, COM conference, Montreal, Canada, 2006.

5- An investigation on the plasma nitriding of H13 steel, heat treatment and surface engineering conference, 2006, Mashhad, Iran.

6- The effect of austenite grain size on the growth of different ferrite morphologies in a Nb-microalloyed steel, DIAMAT 2008, Lanzaroti, Spain

7- The effect of T7351 heat treatment on microstructural and mechanical properties and SCC of AA7075 aluminum alloy, International Conference on Advanced High-Temperature and High-Strength Structure Materials, 2009, The Hong Kong Polytechnic University, Hong Kong

8- The effect of different filler metals on the mechanical properties and corrosion resistance of welded 316L stainless steel, IMMC 2010, 2010, Istanbul, Turkey

## 5-2: Journal Papers

- 1- M.Esmailian, M. Tafazoli, "The effect of alloys elements on the mechanical properties of hot-knock-out ADI cast irons, Casting Iranian Journal, 1991, Vol. 13, No. 2, pp 62- 72
- 2- M. Esmailian, A. Ebrahimi, " The effect of addition of Ti as a trace element on the mechanical properties of ADI cast irons made by direct austempered method, Casting Iranian Journal, 2007, Vol. 23, No. 85, pp 64-73
- 2- M.esmailian, " The effect of austenite grain size on the growth of different ferrite morphologies in a Nb-microalloyed steel." Defect and Diffusion Forum, 2009, Vols. 289-292, pp 109-117
- 3- A. Mahmoudi, M. Esmailian, "Wear behavior of white layer in plasma Nitrided H13 steel at ambient and elevated temperatures.", Advanced Materials research, 2010, Vols. 83-86, pp 41-48
- 4- M. esmaeilian, " The effect of cooling rate and austenite grain size on the austenite to ferrite transformation temperature and and different ferrite morphologies in microalloyed steels.", Iranian Journal of Materials Science & Engineering vol. &, Number 1, Winter 2010, Vol. 7, No. 1, pp 7-14
- 5- Amir Mahmoudi, M.Esmailian, S.E. Aghamiri," Effect of stabilizing heat treatment on intergranular corrosion resistance of welded stainless steel AISI 321", Advanced Materials Research, 2012/June, Vol., 535-537, pp 692-696
- 6- Amir Mahmoudi, M.Esmailian, S.E. Aghamiri," Investigation on effect of solution-stabilizing post heat treatment on microstructure of AISI 321 stainless steel", Materials Science Forum, 2013/Nov, 773-774, pp 785-794
- 7- Ali Soloki, M.Esmailian, Carbonate\_ foaming agents in Aluminum foams: advantages and perspectives, Metallurgical and Materials Transactions B, 2014/Dec. /19, pp 785-794
- 8- M.Esmailian, M. shakouri, A. Mottahedi, S.G. Shabestari, " Effect of T6 and Re-Aging heat treatment on mechanical properties of 7055 aluminum alloy", International journal of chemical, molecular, nuclear, materials and metallurgical engineering, 9-11-2015, pp 1191-1194

9- Azim Safikhani, M.Esmailian, Taleb Tinatiseresht, Ghasem Barati, High temperature cyclic oxidation behavior of ferritic stainless steel with addition of alloying elements Nb and Ti for use in SOFCs interconnect, International Journal of Hydrogen energy, 2016

10- Mehdi Shakouri, Mohammad Esmailian, Saeed Shabestari DEVELOPMENT OF A HEAT TREATMENT FOR INCREASING THE MECHANICAL PROPERTIES AND STRESS CORROSION RESISTANCE OF 7000 AL ALLOYS, MATERIALI IN TEHNOLOGIJE/MATERIALS AND TECHNOLOGY, MTAEC9, 51(5)....(2017)

11- D. Azimi Yancheshmeh<sup>a</sup>, M. Esmailian<sup>a\*</sup>, K.Shirvany<sup>a</sup>, Microstructural and oxidation behavior of Ni-Cr-Al super alloy containing hafnium at high temperature, International Journal of Hydrogen Energy, 2017

### 5-3: Books

- 1- M.Esmailian, Mechanical behavior of engineering materials, Translated to Persian language

### 6- Industrial Projects

Project Titles	Budget (Rials)
Technology characterization for production of 300 spare parts	380.000.000
Production of two phase ductile irons	50.000.000
Production of steering column parts using in Bus by investment casting method	200.000.000
Investigation on the satellite alloys	150.000.000
Production of Interconnect used in SOFC fuel cell	280.000.000
Effects of alloying element on heat resistant of Inconel 738 super alloy used in SOFC fuel cell	100.000.000
Optimization of mechanical and SCC properties in Aluminum 7055 alloys used in aero-space application	350.000.000
Evaluation of microalloyed steels for using in acidic and hydrogen crack systems	500.000.000