



In the Name of God
Scientific Resume

I. PERSONAL INFORMATION:

Name: Rasoul Sarraf-Mamoory
Address: Ceramic Group, Department of Materials Engineering, Tarbiat Modares University
P.O.Box. 14115-113, Tehran, Iran
Tel: +9821 82883308
Fax: +9821 82884390

II. EDUCATIONAL RECORDS:

B.Sc:

Tehran University, 1984

M.Sc:

Tehran University, 1986

Metallurgy

Ph.D.:

McGill University Canada, 1992

Powder Metallurgy

III. ACADEMIC EXPERIENCES:

Full Professor, Tarbiat Modares University, Tehran, Iran, (Since 1992)
Head of Materials Engineering Department, Tarbiat Modares University, 1997- 2000.
Head of Ceramic Group, Materials Engineering Department, Tarbiat Modares University, 1993-1997, 2000-2002, 2005-2007, 2013-Now.

IV. MEMBERSHIP OF SCIENTIFIC SOCIETIES:

1. Member of Iranian Ceramic Society
2. Member of Iranian Metallurgical Engineering Association
3. Member of editorial board of high energetic materials journal.
4. Member of editorial board of Iranian ceramic journal.

V. REFEREE FOR JOURNAL ARTICLES:

1. International Journal of Engineering
2. Iranian journal of Chemistry and Chemical Engineering
3. International Journal of Engineering Science
4. Journal of Engineering, Isfahan university of technology
5. Journal of Nuclear Science & Technology
6. Amirkabir Journal of Science and Research
7. Journal of Faculty of Engineering, University of Tehran
8. Journal of Nanoparticle Research
- 9- Journal of Cluster Science
- 10- Journal of Advanced Materials and Processing
- 11- Journal of Molecular Structure
- 12- Iranian Journal of Materials Science and Engineering
- 13- Powder Technology
- 14- Journal of Faculty of Engineering
- 15- International Journal of Engineering Science
- 16- Nanoscience & Nanotechnology-Asia

VI. RESEARCH INTERESTS:

1. Recovery of metals or ceramic materials from minerals, waste materials, or chemical derivatives.
2. Manufacturing of metallic & ceramic parts like detector, dosimeter, magnet, ...
by powder technology and nanotechnology methods.
3. Preparation of metallic & ceramic powders/ nano powders by physical, chemical, and mechanical methods.

VII. JOURNAL PAPERS

- 1- R. Sarraf-Mamoory, G. P. Demopoulos and R. A. Drew, Metallurgical and Materials Transactions B, 1996, pp. 577-584.
- 2- R. Sarraf-Mamoory G. P. Demopouls and R. A. L. Drew, Metallurgical and Materials Transactions B, 1996. pp. 585-594.
- 3- A.A.Babaluo, M.Kokabi, M.Manteghian, R. Sarraf-Mamoory, Journal. of the European Ceramic Society, 2004, pp. 3779-3787.
- 4-M.Mashhadi, R. Sarraf-Mamoory, S. Baghshahi, International Journal of Engineering science (IUST), 2005, pp. 9-14.
- 5- R.sarraf-Mamoory, N.Riahi-Noori, American Ceramic Society Bullrtin, Sep.

2005, pp. 9401-9407.

6- J. Moghaddam, R. Sarraf-Mamoory, Y. Yamini, M. Abdollahy, *Industrial Engineering Chemical Research*, 2005, pp. 8952-8958.

7- J. Moghaddam, R. Sarraf-Mamoory, M. Abdollahy, Y. Yamini, *Separation and Purification Technology*, 2006, pp. 157-164.

8- R. Sarraf-Mamoory, S. Nadery, N. Riahi-Noori, *Chemical Engineering Communications*, 2007, pp. 1022-1028.

9 - N. Riahi-Noori¹ , R. Sarraf-Mamoory²– S. Mehraeen³ “Effect of Materials Design on Properties of Porcelain Insulators”, 2007, 9201-9205.

10 - B. Shahbahrami, R. Sarraf Mamoory, E. Ehsani, "Self Spreading High Temperature Synthesis of TiB₂ Powder", *Materials Science-Poland*, vol 25, No. 3, 2007, 719-731.

11 - S. Ghader, M. Manteghian, M. Kowkabi, R. Sarraf-Mamoory, "Preparation of Truncated Triangular Silver Nanoparticles by a Simple and Rapid Method in Aqueous Solution", *Polish Journal of Chemistry*, 81, 1555-1565 (2007).

12 - S. Ghader, M. Manteghian, M. Kowkabi, R. Sarraf-Mamoory, "Induction Time of Reaction Crystallization of Silver Nanoparticles", *Chemical Engineering and Technology*, 2007, 30, No. 8, 1-6.

13 - A. Najafi Maryamnegary, R. Sarraf-Mamoory, A. Simchi, N. Ehsani, "Determination of the physical and mechanical properties of iron-based materials produced by microwave sintering", *Powder metallurgy and metal ceramics*, 2007, 46, No. 9-10,

14 - N. Riahi-Noori , R. Sarraf-Mamoory, A. Mehdikhani, A. Hadian, “The effect of Al₂O₃ on physical and electrical properties of ZnO varistors”, *Journal of*

Ceramic Processing Research, 2008, 9, No. 2, 107-110.

15 - N. Riahi-Noori, R. Sarraf-Mamoory, P. Alizadeh, A. Mehdikhani, "Synthesis of ZnO nano Powder by a Gel Combustion Method, Journal of Ceramic Processing, 2008, 9, No. 3, 246-249.

16 - A. Rezaee, Gh. Pour Taghi, A. khavanin, R. Sarraf-Mamoory, M. T. Ghaneian, Godeini, "Photocatalytic Decomposition of Gaseous Toluene by TiO₂ Nanoparticles Coated on Activated Carbon", Iranian journal of environment and science engineering, 2008, 5, No. 4, 305-310.

17- A. Najafi, M. R. Sarraf-Mamoory, N. Riahi Noori, "Looking at MW Sintering and Nickel Diffusion", Metal powder Report, 2009, 30-32.

18 - N. Hosseinabadi, R. Sarraf Mamoory, B. K. Kaleji, "Synthesis, Phase Study and Magnetic Characterisation of Co₅₀Fe₄₀Cu₁₀ Ternary Alloy Nanopowders Prepared by Mechanochemical Alloying Process", powder metallurgy, 2008, 2010, 260-264.

19 - B. K. Kaleji, R. Sarraf-Mamoory, N. Hosseinabadi, "Synthesis of Co₃W-Cu Composite Nanopowders by Mechanical Milling and Hydrogen Reduction Process", powder metallurgy, 2008, 2010, 174-176.

20 - I. Foroutan, R. Sarraf-Mamoory, N. Hosseinabadi, "Alumina - Copper joining by the Sintered Metal Powder Process", Ceramics International, 2010, 741-747.

21- I. Foroutan, R. Sarraf-Mamoory, N. Ranjbar, "Investigating Effect of Temperature and Time of Metalised Layer Sintering by SMPP Method on Tensile Strength and Thermal Shock Resistance", Materials science and technology, 2009, 478-492.

22 - M. safaei, M. Rashidzadeh, R. Sarraf-Mamoory, and M. Manteghian, "Synthesis and Characterization of one-dimensional Titanate Nanostructures via Alkaline Hydrothermal Method of Low Surface Area TiO₂-Anatase", journal of ceramic processing research, 2010, 277-280.

23 - M. safaei, , R. Sarraf-Mamoory, M. Rashidzadeh and M. Manteghian, "A Placket Burman Design in Hydrothermal Synthesis of TiO₂-derived Nanotubes", j. porous Mater, 2009, 719-726.

24- M. safaei, , R. Sarraf-Mamoory, M. Rashidzadeh, and M. Manteghian, "The Interactive Effect of Agitation Condition and Titania Particle Size in

- Hydrothermal Synthesis of Titanate Nanostructures”, *Journal of nanoparticle research*, 2010, 2723–2728.
- 25 - A. Baladi, R. Sarraf-Mamoory, "Investigation of Different Liquid Media and Ablation Times on Pulsed Laser Ablation Synthesis of Aluminum Nanoparticles", *Applied surface science*, 2010, 7559-7564.
- 26- B. Koozegar Kaleji, R. Sarraf-Mamoory, S. Sanjabi, “Photocatalytic Evaluation of a Titania Thin Film on Glazed Porcelain Substrates via a $TiCl_4$ Precursor”, *Reac. Kinet. Mech. Cat.*, 2011, 289–298.
- 27- B. Koozegar Kaleji, R. Sarraf-Mamoory, K. Nakata, A. Fujishima, “The Effect of Sn Dopant on Crystal Structure and Photocatalytic Behavior of Nanostructured Titania Thin Films”, *J. Sol-Gel Sci. Technol.*, 2011, 99–107.
- 28- F. Nikanjam, R. Sarraf-Mamoory, N. Riahi-Noori, “Optimizing Parameters in Synthesis of LiF Nanoparticles via Sol-gel Method”, *NANO: Brief Reports and Reviews*, Vol. 6, No. 6 (2011) 575–581.
- 29 - B. Koozegar Kaleji, R. Sarraf-Mamoory, A. Fujishima, “Influence of Nb Dopant on the Structural and Optical Properties of Nanocrystalline TiO_2 Thin Films”, *Materials chemistry and physics*, 2012, 210– 215.
- 30- B. Koozegar Kaleji, R. Sarraf-Mamoory,” Nanocrystalline Sol–gel TiO_2 – SnO_2 Coatings: Preparation, Characterization and Photo-catalytic Performance”, *Materials research bulletin*, 2012, 362–369.
- 31- B. Sadeghi, R. Sarraf-Mamoory, H. Shahverdi, N. Hosseinabadi, *Iranian Journal of Chemistry and Engineering, Iranian Journal of Chemistry & Chemical*, 1390.
- 32- A. Safi-najafabadi, R. Sarraf-Mamoory, Z. Karimi, *Materials Research Bulletin*, 2012.
- 33- Rostam zadeh, shahverdi, Sarraf-Mamoory, *Advanced Materials Research*, 2010.
- 34- kargar Razi, Khosravi, Sarraf-Mamoory, *international journal of nano dimension*, 2010.
- 35- kargar Razi, Azadi, Sarraf-Mamoory, *international journal of nano dimension*,

2010.

36- kargar Razi, bani Hashemi, Sarraf-Mamoory, international journal of nano dimension, 2010.

37- N. Riahi-Noori , R. Sarraf-Mamoory, A. Mehdikhani, Digest Journal of Nanomaterials and Biostructures, 2011.

38- A. Baladi, R. Sarraf Mamoory, International Journal of Modern Physics Conference Series, 2012.

39- B. Sadeghi, R. Sarraf-Mamoory, H. Shahverdi, Journal of Nanomaterials, 2012.

40- Mojaver, Shahverdi, sarraf-Mamoory, Journal of alloys and compounds, 1392.

41- N. Hosseinabadi, R. Sarraf Mamoory, A. M. Hadian, Ceramic International, 2014.

42- Ghanbari, Sarraf-Mamoory, Sabbagh zadeh, Chehregani, Malekfar, international journal of optics and photonics, 2013.

43- Safa, Sarraf-Mamoory, Azimi Rad, Advanced Materials Research, 2014.

44- Safa, Sarraf-Mamoory, Azimi Rad, Physical E-Low Dimensional Systems & Nanostructures, 2014.

45- Safa, Sarraf-Mamoory, Azimi Rad, Journal of Sol Gel Science and technology, 2015.

46- Rastegar, Mousavi, Shojaosadati, Sarraf-Mamoory, hydrometallurgy, 2015.

47- tavakoli, Sarraf-Mamoory, Zarei, Journal of ceramic processing research, 2015.

48- Dabir, Sarraf-Mamoory,, Materials & Design, 2016.

49- Tavakoli, Sarraf-Mamoory, Zarei, Iranian Journal of Chemistry and Chemical Engineering, 2016.

50- Tavakoli, Sarraf-Mamoory, Zarei, Journal of Advanced Materials and processing, 2015.

51- G. Mousavi, R. Sarraf-Mamoory, In Situ Formation of Hydroxyapatite During Powder Metallurgy Preparation of Porous Ti/ HA Nano Composite, A Candidate for Dental Implants, Materials Research-Ibero-american, 20170967-1 to 20170967-5, 2018

52- A. Mirshafie, A. Rezaii, R. Sarraf-Mamoory, A clean production process for edible oil removal from wastewater using an electro flotation with horizontal arrangement of mesh electrodes, Journal of Cleaner Production, 2018.

- 53- H. Nosrati, R. Sarraf Mamooory, F. Dabir, , Effects of hydrothermal pressure on in situ synthesis of 3D graphene-hydroxyapatite nano structured powders, *Ceramic International*, 1761-1769, 2019.
- 54- K. Yousefi Pour, R. Sarraf Mamooory, A. Yourdkhani, Iron-doping as an effective strategy to enhance supercapacitive properties of nickel molybdate, *electrochemical Acta*, 608-616, 2019.
- 55- Sh. Arshadi Rastabi, R. Sarraf Mamooory, F. Dabir,....., Synthesis of NiMoO₄/3D-rGO Nanocomposite in Alkaline Environments for Supercapacitor Electrodes, *Crystals*, 31-1 to 31-12, 2019.
- 56- H. Nosrati, R. Sarraf Mamooory, F. Dabir,....., In situ synthesis of three dimensional graphene-hydroxyapatite nano powders via hydrothermal process, *Materials Chemistry and Physics*, 251-255, 2019.
- 57- M. Azizi Malekabadi, R. Sarraf Mamooory, Low-temperature synthesis of micro/nano Lithium Fluoride added magnesium aluminate spinel, *Ceramic International*, 20122-20131, 2018.
- 58- Sh. Sarmast, R. Sarraf Mamooory, A. Ghatei, Inverse precipitation synthesis of ZrO₂ nanopowder and in-situ coating on MWCNTs, *Ceramics International*, 13556-13564, 2018.

IX. SEARCH PROJECT LEADER:

1. Design and manufacturing of SiC ceramic refractory, executed, 1999-2000, Tarbiat Modarres University
2. Documentation of bearing manufacturing technology for Peykan car, 1997-1999, SAPCO, Tariat Modares University.
3. Manufacturing of electricity counter magnet, (AlNiCo), 2000-2002, ministry of industries & Tarbiat Modares University.
4. Design and manufacturing of magnetic field-assistant heat treatment furnace, 2002-2004, ministry of Industries & Tarbiat Modares University.
5. Manufacturing of Cu-Graphite composites, (brush), 2000-2001, Ministry of Industries & Tarbiat Modares University.
6. Recovery of Nickel & Cobalt processing from Eghlid mine, ministry of science & Tarbiat Modares University.
7. Preparation of LiF nanopowder for dosimeter pellets, industrial development and renovation organization of iran & Tarbiat Modares University.

8. Preparation of LiF dosimeter pellet, Tarbiat Modares University.
9. Preparation of nano yttria stabilized powder, Tarbiat Modares University.
10. Manufacturing of nanostructure alumina –zirconia composite by sinter forge method.

11. Documentation of seat and guide valve seat by powder metallurgy method.
- 12- Iron alloy powder preparation for cutting rock segment manufacturing.
- 13-TLD-600 & TLD-700 pellet manufacturing.
- 14- Design & manufacturing of a press for pellet compaction.
- 15- Nano hard metal part manufacturing by rapid hot pressing.
- 16- Powder metallurgy manufacturing of amorphous parts.
- 17- Silicon based parts manufacturing.
- 18- Manufacturing of NiMoO₄ supercapacitors

X. BOOKS

1. Translation, "Diffusion in Solids" (by P. Shewmon), Tarbiat Modares University, 1996 & 2017.
2. Introduction and tribology properties of nanostructured advanced ceramics, 2016.

XI. TAUGHT COURSES:

- 1) Drying & Firing of Ceramics (B. Sc.)
- 2) Diffusion in solids (M. Sc.)
- 3) Advanced Kinetics (M. Sc.)
- 4) Ceramic Processing before firing (M. Sc)
- 5) Non- oxide Ceramics (M. Sc.)
- 6) Oxide Ceramics (M. Sc.)
- 7) Ceramic Pigments (M. Sc.)
- 8) Nano Particles Synthesis methods(M. Sc.)
- 8) Advanced Ceramics (Ph. D.)
- 9) Powder Technology (Ph. D.)
- 10) Advanced Nanotechnology (Ph. D.)
- 11) Micro and Nano powder Preparation (Ph. D.)