



Mohamad Ahmadi Daryakenari

Personal Profile

Married

- **Name:** Mohamad Ahmadi Daryaknari
- **Date of Birth:** 13 Jul. 1982
- **Place of Birth:** Tehran, IRAN.

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- **Adress :**
- No36, araghi 7Al., Araghi St., Attaran Bl.,Qom Iran
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Education and Job

- **BSc in Material Science and Engineering**
Department of Mining and Material Engineering , **Amirkabir University of Technology**, Sep. 2001 - Sep. 2005. , for **eight** semesters studying in Industrial Metallurgy Engineering
- **MSc in Material Science and Engineering**
Department of Mining and Material Engineering , **Amirkabir University of Technology**, Oct. 2006 - Jul. 2009, for five semesters studying in Extractive Metallurgy Engineering.
- **Military service** 2009-2011

- **Self study for IELTS TEST** 2011-2012

- **Learning russian languge in Kazan state university, 2012-2013**

- **Phd in technology of inorganic material,**
Department chemical analysis, russia, Kazan national research technological university, April 2013- July 2016 in Technology of inorganic material

- **Researcher in** Renewable Energy Research Center, Amirkabir University of Technology 2016 – 2019
- **Assistant Professor of material science** , shahrood university of technology 2019- now

Teaching Courses

BSc

Static

Material science

Transport of phenomena

Material selection

Thermodynamics of Materials

Production of iron and Steels

Msc

Crystal Growth

Publications

Conference

- 1- **Mohammad AHMADI DARIKENARI**, Mohsen SEIFI, Hadi TABAIAN, Hossein KAZEMIAN
Effect of Processing Parameters on Pore Structure and Thickness of Anodic Alumina Membranes,
. Accepted and Presented in the International Conference on Materials for Advanced Technologies 2009
(ICMAT 2009) , Singapore, 28 June- 3 July 2009
- 2-H. Kazemian, W. R. W. Daud, Z. Yaakob, R. Torkaman, **M. Ahmadi**, M. M. Alinejad, 2009, Controlled
Synthesis Of Ultrathin Zeolite Membrane On Nanoporous Anodic Alumina (Npaa) Substrate , Rccsst '09 ,
25th Regional Conference on Solid State Science and Technology 2009 , "Solid State Science and
Technology for Scientific Advancement" 21st - 23rd December 2009, Penang Island, Malaysia.
- 3-**M.Ahmadi DaryaKenari**, S.H.Tabaian, H.Kazemian, M.MohamadAliNezhad, Effect of Voltage
parameter on pore structure and thickness of anodic alumina membrane, the second joint conference of
12th Iranian Metal. eng. Soc. Cong. And 20th Iranian Foundryman Soc. Seminar, Karaj, Iran, Novemebr
18-19, 2008.
- 4- M.Mohajeri, H.Omidvar, H.Tabaian, **M.Ahmadi daryakenari**, A.Ahmadi daryakenari, Possibility of
production anodic alumina membrane from commercial aluminum, 9th Material Science Engineering
Conference, Tehran, Iran, October 20-22

- 5- M.Mohajeri, **M.Ahmadi daryakenari**, H.Omidvar, A.Ahmadi daryakenari, Change of morphology anodic alumina membrane, 9th Material Science Engineering Conference, Tehran, Iran, October 20-22
- 6- A.Ahmadi daryakenari, M.R.vaezi, T.Ebadzadeh, D.Hosseini, **M.Ahmadi daryakenari**, Effect Calcination Temperature On Synthesize Zinc Oxide NanoPowder with Sol-Gel method, 1th National Nanomaterial and Nanotechnology, Najafabat, Isfahan, Iran, 27-28 April.
- 7- A.Ahmadi daryakenari, M.R.vaezi, T.Ebadzadeh, **M.Ahmadi daryakenari**, Characterization Sensing Prperties Ethanol Gaz On Zinc Oxide NanoPowder , 1th National Nanomaterial and Nanotechnology, Najafabat, Isfahan, Iran, 27-28 April.
- 8- M.МОHAJERI, S.H.TABAEIAN, H.OMIDVAR, **M.AHMADI DARIKENARI**, Nonporous Anodic Alumina Membrane Fabricated With Low Purity Material for Use in Commercial Application, 2nd International Conference on Ultrafine Grained and Nanostructured Materials Center of Excellence For High Performance Materials School of Metallurgy and Materials Engineering University College of Engineering, University of Tehran Tehran, Iran. 14-15 Nov. 2009
- 9- M.МОHAJERI, S.H.TABAEIAN, H.OMIDVAR, **M.AHMADI DARIKENARI**, Fabrication Nanocomposite Membrane by nanoporous anodic alumina substrate that filled with conductive polymer for use in H₂/O₂ Fuel cell, 2nd International Conference on Ultrafine Grained and Nanostructured Materials Center of Excellence For High Performance Materials School of Metallurgy and Materials E1.
- 10- Петрова, Е.В. Влияние природы и состава раствора на структуру и свойства прекурсоров оксидной керамики, синтезируемых электрохимическим методом/ Петрова Е.В., Дресвянников А.Ф., Ахмади Дарякенари М., Хайруллина А.И. // XII Всероссийская конференция с международным участием «Проблемы сольватации и комплексообразования в растворах. От эффектов в растворах к новым материалам»: тез. докл. – Иваново, 2015. - С.268-269.
11. Петрова, Е.В. Электрохимический синтез наноразмерных оксидов/ Петрова Е.В., Дресвянников А.Ф., Ахмади Дарякенари М., Хайруллина А.И. // Пятая международная конференция «От

наноструктур, наноматериалов и нанотехнологий к наноиндустрии»: тез. докл. – Ижевск 2015. - С.150-151.

12-. Петрова, Е.В. Влияние способа получения дисперсного предшественника на физические свойства алюмооксидной керамики/ Петрова Е.В., **Ахмади Дарякенари М.**, Дресвянников А.Ф. // Международная научная конференция «Полифункциональные химические материалы и технологии»: тез. докл. – Томск, 2015. - С. 149-151.

13-. Петрова, Е.В. Термодинамические характеристики высокодисперсных систем $Al_2O_3-ZrO_2$, полученных электрохимическим методом/ Петрова Е.В., Дресвянников А.Ф., Хайруллина А.И., **Ахмади Дарякенари М.** // 10 Всероссийский симпозиум с международным участием «Термодинамика и материаловедение»: тез. докл. Санкт-Петербург, 2015. - С.36.

14- Петрова, Е.В. Электрохимический синтез алюмоциркониевых оксидных систем/ Петрова Е.В., Дресвянников А.Ф., Хайруллина А.И., **Ахмади Дарякенари М.** // Международный симпозиум «Химия для биологии, медицины, экологии и сельского хозяйства»: тез. докл. – Санкт-Петербург, 2015. - С. 67-68.

15-. Хайруллина, А.И. Алюмоциркониевые оксидные системы, полученные электрохимическим методом и их физико-химические свойства/ Хайруллина А.И., **Ахмади Дарякенари М.** Петрова Е.В., Дресвянников А.Ф. // Аннотации сообщений, Научная сессия «КНИТУ»: тез. докл. – Казань, 2016. - С.12

16- A. Ahmadi Daryakenari, **M. Ahmadi Daryakenari**, H. Omidvar, Hopping behavior of NiO-nanographitic flakes fabricated by electrophoretic deposition, Proceedings of the 7th International Conference on Nanostructures(ICNS7), 27Feb- 1 Mar2018, Tehran, Iran.

17- Sputtering ultra small Pt on nanographitic flakes deposited by electrophoresis for ethanol electrooxidation , Ahmad Ahmadi Daryakenari, **Mohammad Ahmadi Daryakenari**, Hamid Omidvar, Sputtering ultra small Pt on nanographitic flakes deposited by electrophoresis for ethanol electrooxidation, (Accepted in AIP conference Proceedings)

18- **Mohammad Ahmadi Daryakenari**, Ahmad Ahmadi Daryakenar, Effect of Sintering Temperature of SPS on Microhardness and bending strength in nanocomposite Al₂O₃-ZrO₂, Second National Conference on Micro / Nanotechnology, Sep 2020, Qazvin, Iran

19- **Mohammad Ahmadi Daryakenari**, Ahmad Ahmadi Daryakenar, Evaluation YSZ/ Aerogel Thermal Barrier Coating on 7075 Aluminum, 9th International Conference On Material Engineering and Metallurgy, November 2020, Tehran, Iran.

20- - **Mohammad Ahmadi Daryakenari**, Ahmad Ahmadi Daryakenari, Comparison of single-stage and two-stage anodizing for membrane synthesis, 10th International Conference On Material Engineering and Metallurgy, November 2021, Tehran, Iran.

21- Majid Karami Keshmarzi, Ahmad Ahmadi Daryakenari, **Mohammad Ahmadi Daryakenari**, Synthesis of graphene-cobalt oxide nanocomposite anodes of lithium ion batteries by electrophoretic method, 10th International Conference On Material Engineering and Metallurgy, November 2021, Tehran, Iran.

Paper

1- A. Ahmadi Daryakenari , M. R. Vaezi, T. Ebadzadeh1 **and M. Ahmadi Daryakenari** , Evaluation of ethanol gas sensing properties of ZnO nanopowder doped with Cu and Fe International Journal of Physical Sciences Vol. 7(13), pp. 2110 - 2117, 23 March, 2012. **Scopus**

2- A. Ahmadi Daryakenari, **M. Ahmadi Daryakenari** , Y. Bahari,1 and H. Omivar, preparation and Ethanol Sensing Properties of ZnO Nanoparticles via a Novel Sol-Gel Method, International Scholarly Research Network ISRN Nanotechnology **DOI**.

3- **M. Ahmadidaryakenari**, M. Samimi , A. Ahmadidaryakenari, an, H. Omidvar, Evaluation of Anodic Alumina Membrane Synthesized at Different Voltages, Advanced Science, Engineering and Medicine, Vol. 5, pp. 1-5, 2013 **DOI**.

4 - Григорьева, И.О. Локальная коррозия алюминия в условиях анодной поляризации/ Григорьева И.О., Дресвянников А.Ф., **Ахмади Дарякенари М.** // Вестник Казанского технологического университета. - 2014. - Т.17. - № 7. - С.279-283. **Vak**

5-. **Ahmadi Daryakenari, M.** Spark plasma sintering of alumina: effect of temperature on microhardness/ Ahmadi Daryakenari M., Dresvyannikov A.F., Petrova E.V. // Вестник Казанского технологического университета. 2014. - Т.17. - № 7. - С.45-46. **Vak**

6. **Ahmadi Daryakenari, M.** Spark plasma sintering of alumina: microhardness and temperature distribution model as a function of powder preparation method and sintering mode/ Ahmadi Daryakenari M., Jafarzade A., Dresvyannikov A.F., Petrova E.V. // Вестник Казанского технологического университета. 2015. - Т.18. - № 4. - С.189-193. **Vak**

7. Петрова, Е.В. Измерение размеров частиц твердофазных оксидов методом лазерной дифракции на примере оксида алюминия/ Петрова Е.В., Дресвянников А.Ф., Галиуллина Н.Т., **Ахмади Дарякенари М.** // ЗАВОДСКАЯ ЛАБОРАТОРИЯ. ДИАГНОСТИКА МАТЕРИАЛОВ – 2015. – Т.81. - №8. – С.73-76. **VAk**

8- E. V. Petrova, A. F. Dresvyannikov, **M. Ahmadi Daryakenari**, A. I. Khairullina, Physicochemical properties of precursors of Al₂O₃–ZrO₂ oxide ceramics prepared by electrochemical method, **Russian Journal of Physical Chemistry A**, May 2016, Volume 90, pp 1021–1026. **ISI**

9- M. R. Mohebbifar , **M. Ahmadi daryakenari** , G. Mosallanezhad , M. Zohrabi, EFFECT OF THE ELIMINATION OF THE BARRIER LAYER PERIOD IN PRODUCTIVE PROCESS AND ITS SIMULATION OF ABSORPTION SPECTRA FOR ANODIC ALUMINA MEMBRANE, NANOSYSTEMS: PHYSICS, CHEMISTRY, MATHEMATICS, 2014, 5 (6), P. 737–751. **Vak**

10- **M. Ahmadi Daryakenari** , M. Zohrabi , A. Ahmadi Daryakenar, Effect of the removal of the barrier layer period in productive process for anodic alumina membrane, NANOSYSTEMS: PHYSICS, CHEMISTRY, MATHEMATICS, 2016, 7 (6), P. 1-5 **Vak**

11- Mohammad Golrokh Siahroudi, ahmad ahmadidaryakenari, yaser bahari molamahaleh, Qi CaO, **Mohammad Ahmadi Daryakenari**, Jean-Jacques Delaunay; Hossein Siavoshi; fatemeh molaei, Ethylene glycol assisted solvo-hydrothermal synthesis of NGr-Co₃O₄ nanostructures for ethanol electrooxidation, **International Journal of Hydrogen Energy**, Volume 45, Issue 55, 6 November 2020, Pages 30357-30366 **ISI**

12-Ahmad Ahmadi Daryakenaria, Behroo zMosallanejad, Erfan Zarea, **Mohammad Ahmadi Daryakenari**, ArashMontazeri, AleksandraApostoluk, Jean-Jacques Delaunay, Highly efficient

electrocatalysts fabricated via electrophoretic deposition for alcohol oxidation, oxygen reduction, hydrogen evolution, and oxygen evolution reactions, **International Journal of Hydrogen Energy**, Volume 46, Issue 10, 8 February 2021, Pages 7263-7283. **ISI**

۱۳- محمد احمدی دریاکناری، احمد احمدی دریاکناری، مصطفی حاجیان حیدری، سنتز سیلیکا آبروژل از پوسته برنج به روش خشک کردن محیطی. دوره ۱۴، شماره ۴۹، اردیبهشت ۱۴۰۱، صفحه ۱-۷. (**Iranian Article -ISC**)

14-Somayeh Sepehri, Ahmad Ahmadi Daryakenari, Behrooz Mosallanejad, Arash Montazeri, Hossein Ghafarian-Zahmatkesh, Shaghayegh Sadeghi Malek, **Mohammad Ahmadi Daryakenari**, Jean-Jacques Delaunay, Majid Yamin, Reduced NiO nanostructures grown on nickel foam by anodization and heat treatment for oxygen evolution reaction, Journal of Solid State Chemistry, Volume 312, August 2022, 123171. **ISI**

Vak: Scientific articles are in Russia

<https://www.elibrary.ru/defaultx.asp>

Skill of Language

English: excellent
Russian: excellent
Persian: native

Honors & Awards:

Ranked 2nd in MSC Of Extractive metallurgy Engineering, Amirkabir University of Technology, Tehran, Iran.

4 Iranian Patent :

1. Synthesize Nano porous Alumina membrane with anodizing method. **Iranian Patent Number 54249- 2009**

2. Optimum Process for controlled dissolution of barrier oxide layer in nanoporous anodic alumina membrane. **Iranian Patetnt Number 59737- 2009.**
3. Aluminum Color Anodizing Using Industrial Ink. **Iranian Patetnt Number 59736- 2009.**
4. Production anodic alumina membrane from commercial aluminium for using fuel cell membrane.

Iranian Patetnt Number 58544- 2009.

Research interests

- Powder metallurgy
- Nano Particle and Nano Structure (Synthesize, Characterization, Properties and Applications).
- Electrochemistry and Batteries
- corrosion
- recycling of materials and Surface Engineering

Projects

1- Phd final project

Development of methods of synthesise and SPS of alumina and alumina-zirconia powder

2-M.Sc final project:

Synthesis and characterization of Nanoporous anodic alumina membrane, September 2007- January 2009, Supervisor : Dr. S.H.Tabaian and Dr.H.Kazemian.

3- B.Sc final project:

Aluminium Color anodizing with Dipping method , Supervisor : Dr.Farzad. Mahbobi

4- Military of project

Evaluation YSZ/ Aeroge Thermal Barrier Coating on 7075 Aluminum