

# Curriculum Vitae and Summary of Research Experiences

## Shervin Daneshvar e Asl



### PERSONAL INFORMATION

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- **Gender:** Male
- **Nationality:** Iranian
- **Date of Birth:** 11 September 1989
- **Place of Birth:** Mashhad, Khorasan Razavi, Iran
- **Marital Status:** Single
- **Address:** No. 1, Daneshamouz 14, Mashhad, Khorasan Razavi, Iran
- **Mobile Phone Number:** +98 915 523 3918
- **E-mail:** [sh\\_daneshvarasl@yahoo.com](mailto:sh_daneshvarasl@yahoo.com) & [sh.dan4@student.sharif.edu](mailto:sh.dan4@student.sharif.edu)

### EDUCATIONAL & RESEARCH BACKGROUND

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**2013–2019:** Ph.D. in Materials Engineering, *GPA: 18.23/20*

- Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Iran

**2018 Feb-Aug:** Visiting Researcher

- Department of Chemistry, Faculty of Science, National University of Singapore, Singapore

**2011–2013:** M.Sc. in Materials Engineering- Metals Extraction, *GPA: 18.91/20*

- Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Iran

**2007–2011:** B.Sc. in Materials Engineering- Industrial Metallurgy, *GPA: 18.11/20*

- Department of Metallurgical Engineering, Faculty of Engineering, Ferdowsi University of Mashhad, Mashhad, Khorasan Razavi, Iran

## THESES

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- **Ph.D.:** Synthesis and Study of Photocatalytic Activity of Biphasic Titanium Dioxide Loaded with Au@Ag@Au Core-Double Shell Bimetallic Nanoparticles
- **M.Sc.:** Selection of a Nanostructured Pattern for Increasing Absorption Efficiency of a Dye-Sensitized Solar Cell Based on TiO<sub>2</sub>
- **B.Sc.:** Fabrication of Aluminum–Graphite Composite by Spark Plasma Sintering (SPS) Method

## RESEARCH INTERESTS

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Photocatalysis, Solar Cell, Nanomaterial and Composite

## PUBLICATIONS

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- [1] S. Daneshvar e Asl and S. K. Sadrnezhad, “Biphasic TiO<sub>2</sub> Nanoleafed Nanorod Electrode for Dye-Sensitized Solar Cell”, Submitted.
- [2] S. Daneshvar e Asl and S. K. Sadrnezhad, “Anionic and Cationic Pollutants Degradation via TiO<sub>2</sub> Nanoleafed Nanorods”, Solid State Sciences, Vol. 105, pp. 106263 1-5, 2020.
- [3] S. Daneshvar e Asl and S. K. Sadrnezhad, “Gold@Silver@Gold Core Double-Shell Nanoparticles: Synthesis and Aggregation-Enhanced Two-Photon Photoluminescence Evaluation”, Plasmonics, Vol. 15, pp. 409-416, 2020.
- [4] S. Daneshvar e Asl and S. K. Sadrnezhad, “Photocatalytic Activity of Rutile/Anatase TiO<sub>2</sub> Nanorod/Nanobranched Thin Film Loaded with Au@Ag@Au Core Double Shell Nanoparticles”, Journal of Photochemistry and Photobiology A: Chemistry, Vol. 380, pp. 111843 1-9, 2019.
- [5] S. Daneshvar e Asl, A. Eslami Saed and S. K. Sadrnezhad, “Hierarchical Rutile/Anatase TiO<sub>2</sub> Nanorod/Nanoflower Thin Film: Synthesis and Characterizations”, Materials Science in Semiconductor Processing, Vol. 93, pp. 252-259, 2019.
- [6] S. Daneshvar e Asl and S. K. Sadrnezhad, “Two-Phase Rutile/Anatase TiO<sub>2</sub> Nanobranched Nanorod Arrays for Photoelectrochemical Applications”, Advanced Materials in Engineering (Esteghlal), Vol. 37 (2), pp. 69-79, 2018. In Persian
- [7] S. Daneshvar e Asl and S. K. Sadrnezhad, “Improvement of the Photovoltaic Performance of Dye-Sensitized Solar Cell by Using TiO<sub>2</sub>:CNT Nanocomposite Photoanode”, Metallurgical and Materials Engineering, Vol. 30 (1), pp. 101-110, 2019. In Persian

- [8] S. Daneshvar e Asl and S. K. Sadrnezhaad, "Structural and Physical Properties of TiO<sub>2</sub>/CNT Nanocomposite Thin Films Synthesized by Sol-Gel Dip Coating Method for Using in Dye-Sensitized Solar Cell", *Advanced Materials in Engineering (Esteghlal)*, Vol. 36 (3), pp. 101-109, 2017. In Persian
- [9] M. Hoseinbor, S. K. Sadrnezhaad and S. Daneshvar e Asl, "Performance Improvement of Dye-Sensitized Photovoltaic Photocell by Using Titanium Dioxide Thin Layer Doped with Lithium", *Advanced Processes in Materials*, Vol. 8 (1), pp. 1-8, 2014. In Persian
- [10] S. Daneshvar e Asl and S. K. Sadrnezhaad, "Growth of TiO<sub>2</sub> Branched Nanorod Arrays on Transparent Conducting Substrate", *The 6<sup>th</sup> Biennial International Conference on Ultrafine Grained and Nanostructured Materials*, Kish Island, Iran, 2017.
- [11] S. Daneshvar, F. Khoramshahi, D. Khademi, H. Y. Mehrabani and A. Babakhani, "Fabrication of Aluminum-Graphite Composites by SPS Method", *The 3<sup>rd</sup> International Conference on Composites: Characterization, Fabrication and Application*, Tehran, Iran, pp. 21-22, 2012.
- [12] S. Daneshvar e Asl and S. K. Sadrnezhaad, "Synthesis and Investigation of the Structure and Optical Properties of Two-Phase TiO<sub>2</sub> Nanobranched Nanorods Thin Film for Using in Dye-Sensitized Solar Cell", *The 7<sup>th</sup> Conference on Nanostructured Solar Cells*, Tehran, Iran, pp. 83, 2017.
- [13] S. Daneshvar e Asl and S. K. Sadrnezhaad, "Synthesis and Investigation of the Structure and Physical Properties of TiO<sub>2</sub>:CNT Thin Films for Using in Dye-Sensitized Solar Cells", *The 4<sup>th</sup> Conference on Nanostructured Solar Cells*, Tehran, Iran, pp. 35, 2014.
- [14] S. Daneshvar e Asl and S. K. Sadrnezhaad, "Increasing the Conversion Efficiency of Dye-Sensitized Solar Cell by Using TiO<sub>2</sub>:CNT Nanocomposite Photoanode", *The 3<sup>rd</sup> Conference on Nanostructured Solar Cells*, Tehran, Iran, pp. 38, 2013.
- [15] M. Hoseinbor, S. K. Sadrnezhaad and S. Daneshvar e Asl, "Synthesis of Nanostructured Mesoporous TiO<sub>2</sub> Film Doped with Lithium by the Sol-Gel Method: Structural Characterization and Optical Properties", *The 2<sup>nd</sup> Conference on Nanostructured Solar Cells*, Tehran, Iran, pp. 67, 2012.

## **EXPERIMENTAL SKILLS**

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- Expertise on Design and Manufacturing Spark Plasma Sintering System
- Expertise on Manufacturing Dye-Sensitized Solar Cell

## **COMPUTER SKILLS**

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- **Softwares:** Design-Expert (Design of Experiments Software), ZView (Impedance Analysis Software), AutoCAD (2D and 3D Computer-Aided Design and Drafting Software) and Microsoft Office
- **Programming Language:** QBasic

## **TEACHING EXPERIENCES**

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### **Teaching Assistant:**

- Advanced Metallurgical Thermodynamics (M.Sc. Course)
- Advanced Thermodynamics of Materials (M.Sc. Course)
- Advanced Kinetics of Materials (M.Sc. Course)
- Hydroelectrometallurgical Processes (M.Sc. Course)
- Thermodynamics of Materials (B.Sc. Course)
- Basis of Materials Production (II)- Hydrometallurgy (B.Sc. Course)
- Metallurgical Processes Lab (M.Sc. Course)
- Processes of Materials Production Lab (B.Sc. Course)
- Casting Workshop (B.Sc. Course)

## **WORK AND RESEARCH EXPERIENCES**

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- Research and Development Department of Atie Pardazan Sharif Co. (Producer of Mixed Metal Oxides Coated Titanium Anodes, Tehran, Iran)
- Visiting Researcher at National University of Singapore
- Internship at Mess Parang Co. (Producer of Non-Ferrous Profiles, Mashhad, Iran)

## **HONOURS & AWARDS**

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- Distinguished Researcher, Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Iran, 2018
- Awarded a Scholarship for Ph.D. Student in National Elites Foundation, Tehran, Iran, 2016
- Awarded a Scholarship for Ph.D. Student in National Elites Foundation, Tehran, Iran, 2015
- Awarded a Scholarship for Ph.D. Student in National Elites

Foundation, Tehran, Iran, 2014

- Ranked 1<sup>st</sup> among Materials Engineering Ph.D. Students, Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Iran, 2013–2019
- Credited for Ph.D. Program in Sharif University of Technology, 2013
- Ranked 1<sup>st</sup> among Extractive Metallurgy M.Sc. Students, Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Iran, 2011–2013
- Ranked 2<sup>nd</sup> among Materials Engineering M.Sc. Students, Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Iran, 2011–2013
- Credited for M.Sc. Program in Sharif University of Technology, 2011
- Ranked 2<sup>nd</sup> among Materials Engineering B.Sc. Students, Department of Metallurgical Engineering, Faculty of Engineering, Ferdowsi University of Mashhad, Mashhad, Iran, 2007–2011
- Second Place on Seventh National Heat Treatment Competitions, 2010

## **LANGUAGES SPOKEN**

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- **Persian:** Native
- **English:** Fluent

## **COMMUNITY ACTIVITIES**

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Football, Reading and Movies

## **REFERENCES**

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Dr. Sayed Khatiboleslam Sadrnezhaad, Professor

Department of Materials Science and Engineering, Sharif University of Technology, Tehran, Iran

E-mail: [sadrnezh@sharif.edu](mailto:sadrnezh@sharif.edu)

Dr. Xu Qing-Hua, Associate Professor

Department of Chemistry, Faculty of Science, National University of

Singapore, Singapore

E-mail: [qinghua@nus.edu.sg](mailto:qinghua@nus.edu.sg)

Dr. Hossein Yoozbashizadeh, Professor

Department of Materials Science and Engineering, Sharif University of  
Technology, Tehran, Iran

E-mail: [yoozbashi@sharif.edu](mailto:yoozbashi@sharif.edu)

Dr. Abolfazl Babakhani, Professor

Department of Metallurgical Engineering, Faculty of Engineering,  
Ferdowsi University of Mashhad, Mashhad, Iran

E-mail: [babakhani@um.ac.ir](mailto:babakhani@um.ac.ir)