

# Dr. Amin Yourdkhani

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## Education

- **Doctorate of Philosophy** (2009-2012), Chemistry and Materials Science, University of New Orleans, New Orleans, LA, United States
- **M.Sc** (2005-2008) Materials Engineering, University of Tehran, Tehran, Iran
- **B.Sc** (2001-2005) Materials Engineering, University of Semnan, Semnan, Iran

## Research Experiences

- (2012-2013) Postdoctoral Researcher, Marie Curie Fellowship, European Union Nanowiring Network, Istituto dei Materiali per l' Elettronica ed il Magnetismo, CNR, Parma, Italy
- (2009-2012) Research Assistant, Advanced Materials Research Institute, University of New Orleans, New Orleans, Louisiana, United States
- (January 2012-May 2012) Teacher Assistant, Chemistry department, University of New Orleans, New Orleans, Louisiana, United States
- (2006-2007) Research Assistant, Center of Excellence on Magnetic Materials, Magnetic Materials Lab, Materials Science and Engineering Department, University of Tehran, Tehran, Iran

## Research Interests

Ceramics for Energy Applications (both storage and conversion), Electroceramics, Nanoscale Characterization by Scanning Probe Microscope

## Publications

Younes Sadin, Ehsan Taheri-Nassaj, Rainer Schmidt, Amin Yourdkhani, Sami Myllymäki, Heli Jantunen, Hadi Barzegar-Barfrooei, Novel LiCa (PO<sub>3</sub>)<sub>3</sub> and LiSr (PO<sub>3</sub>)<sub>3</sub> microwave dielectric ceramics, *Journal of the European Ceramic Society*, 44 (2024) 1617-1626.

Niusha Mouchani, Amir Hossein Farahmand-Dashtarjandi, Amin Yourdkhani, Reza Poursalehi, Narendra Babu Simhachalam, Oxygen vacancy modulation of hematite thin films using annealing in graphite bed for photoelectrochemical applications, *Surfaces and Interfaces*, 42 (2023) 103456.

Amir Hossein Farahmand-dashtarjandi, Amin Yourdkhani, Reza Poursalehi, Narendra Babu Simhachalam, Post-annealing of hematite films: the changes in surface chemistry, lattice dynamics, and photoelectrochemical properties, *Journal of Alloys and Compounds*, 962 (2023) 171122.

Parastoo Moradi, Ehsan Taheri-Nassaj, Amin Yourdkhani, Vasyl Mykhailovych, Andrei Diaconu, Aurelian Rotaru, Enhanced energy storage performance in reaction-sintered AgNbO<sub>3</sub> antiferroelectric ceramics, *Dalton Transactions*, 52 (2023) 4462-4474.

Fatemeh Parveh, Amin Yourdkhani, Reza Poursalehi, Photoelectrochemical properties of single-grain hematite films grown by electric-field-assisted liquid phase deposition, *Dalton Transactions*, 51 (2022) 17255-17262.

Niusha Mouchani, Amin Yourdkhani, Reza Poursalehi, Photoelectrochemical properties of butane reduced flame-treated Zr-doped hematite thin films, *Journal of the American Ceramic Society*, 105 (2022) 5274-5284.

Mahdi Rasouli, Amin Yourdkhani, Reza Poursalehi, Photoelectrochemical properties of gradient Ti-doped hematite thin films prepared by liquid phase deposition, *Materials Science in Semiconductor Processing*, 142 (2022) 106476.

Kian Yousefipour, Rasoul Sarraf-Mamoory, Amin Yourdkhani, Supercapacitive properties of nickel molybdate/rGO hybrids prepared by the hydrothermal method, *Surfaces and Interfaces*, 29 (2022) 101638.

Maryam Nili-Ahmadababdi, Rasoul Sarraf-Mamoory, Amin Yourdkhani, Andrei Diaconu, Aurelian Rotaru, Magnetic and electrical properties of Mg<sub>1-x</sub>Co<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub> (x = 0-0.15) ceramics prepared by the solid-state method, *Journal of the European Ceramic Society*, 42 (2022) 442-447.

Reza Montahaei, S.A. Seyyed Ebrahimi, Amin Yourdkhani, Reza Poursalehi, Photoelectrochemical properties of butane flame-treated niobium-doped hematite thin films grown by the liquid-phase deposition method, *Journal of Alloys and Compounds*, 894 (2022) 162428.

Hamed Bakhshi, Rasoul Sarraf-Mamoory, Amin Yourdkhani, Shaochang Song, Yu-Chih Tseng, Yuriy Mozharivskyj, Improvements in the thermoelectric efficiency of SrTiO<sub>3</sub> through donor doping, *Ceramics International*, 48 (2022) 5831-5839.

Mohadeseh Karimkhah, Amin Yourdkhani, Ehsan Moradpur-Tari, Reza Poursalehi, Rasoul Sarraf-Mamoory, How Does Water of Crystallization Influence the Optical Properties, Band Structure and Photocatalytic Activity of Tungsten Oxide? *Surfaces and Interfaces*, 27 (2021) 101493.

Niousha Varastegani, Amin Yourdkhani, S.A. Seyed Ebrahimi, Aurelian Rotaru, The effects of sintering temperature on structural, electrical, and magnetic properties of MgFe<sub>1.92</sub>Bi<sub>0.08</sub>O<sub>4</sub>, *Journal of Electroceramics*, 46 (2021) 151-161.

Soroush Dashtizad, Parvin Alizadeh, Amin Yourdkhani, Improving piezoelectric properties of PVDF fibers by compositing with BaTiO<sub>3</sub>-Ag particles prepared by sol-gel method and photochemical reaction, *Journal of Alloys and Compounds*, 883 (2021) 160810.

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Mahsa Kamani, Amin Yourdkhani Reza Poursalehi Rasoul Sarraf-Mamoory, Studying the cold sintering process of zinc ferrite as an incongruent dissolution system, *International Journal of Ceramic Engineering & Science*, 1 (2019) 125-135.

K.Yousefipour, R.Sarraf-Mamoory, AminYourdkhani, Iron-doping as an effective strategy to enhance supercapacitive properties of nickel molybdate, *Electrochimica Acta*, 296 (2019) 608-616.

Reza Peymani, Reza Poursalehi, Amin Yourdkhani, DC Arc discharge synthesized zirconia nanoparticles: shed light on arc current effects on size, crystal structure, optical properties and formation mechanism, *Materials Research Express*, 6 (2019) 075002.

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S. Narendra Babu, Seong-Gi Min, Amin Yourdkhani, Gabriel Caruntu, and Leszek Malkinski, Magnetoelectric effect in AlN/CoFe bi-layer thin film composites, *Journal of Applied Physics*, 111 (2012) 07C720.

Debasish Mohanty, Girija S. Chaubey, Amin Yourdkhani, Shiva Adireddy, Gabriel Caruntu, and John B. Wiley, Synthesis and ferroelectric response of cubic and spherical LiNbO<sub>3</sub> nanocrystals, *RSC Advances*, 2 (2012) 1913-1916.

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