




PERSONAL
INFORMATION

Yadolah Ganjkanlou

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 <https://scholar.google.com/citations?user=DJcsTpcAAAAJ&hl=en>

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Sex male | Date of birth 29/06/1984 | Nationality Iranian

 RESEARCH
EXPERIENCE

 Started from May
2016

Postdoctoral Researcher at University of Pardubice

Department of Physical Chemistry, Faculty of Chemical Technology, University of Pardubice, Studentská 573, CZ-532 10 Pardubice, Czech Republic

- Intelligent design of nanoporous adsorbent and catalyst
 - Collaboration with four other universities including Charles university in Prague and Heyrovsky Institute of Physical Chemistry (<http://www.zeolites.cz>)
 - Main activities related to characterization of catalyst by probe molecules coupled with IR spectroscopy, TPD, TPR, surface assessment by N₂ sorption, In situ UV-Vis, Raman and IR

Business or sector Department of Chemistry and NIS Center of excellence, University of Turin

 Sep. 2015-May
2016

Working as an International researcher at UNITO

Department of Chemistry and NIS Center of excellence, University of Turin, Via P. Giuria 7, 10125 Torino, Italy

- Characterization of Zn-ZSM5 zeolites prepared for MTA (methanol to aromatic) process (the work has been done in collaboration with Haldor Topsøe company)
 - Definition of the reaction mechanism + determination of the active sites
 - Aim of work is to increase the activity and stability of the catalyst.

Business or sector Department of Chemistry and NIS Center of excellence, University of Turin

 May 2014-Dec.
2014

Collaboration with the Oligom project University of Turin-Italy and University of Oslo-Norway

Department of Chemistry and NIS Center of excellence, University of Turin, Via P. Giuria 7, 10125 Torino, Italy

- Characterization of different zeolite samples modified with transition metal ions (mainly Ni) utilized for **oligomerization** of olefins

Business or sector Department of Chemistry and NIS Center of excellence

 Jan. 2007- June
2013

Working as a researcher at Materials and Energy research Center with different experiences

Materials and Energy Research Center (MERC), P.O. Box: 14155-4777, Tehran, Iran.

- Preparation of Tin Oxide thin film for gas sensing applications (Project ID: 428708, 2011-2012)
- Application of nano-phosphors as biologic sensors (Project ID: 528911, 2012-2013)
- Modeling of mechanical properties of Geopolymer by the use of artificial neural network (Project ID: 328606, 2009-2011))
- Improvement of wetting behavior of tungsten sol for preparation of WO₃ thin films, (Project ID: 421390004, 2012-2013)
- Research assistant in semiconductor Department (June-2011, Contract Number:20/2391) [Operator of Edward Auto 306 instrument for electron beam evaporation, sputtering and resistive evaporation]

Business or sector Semiconductor and Energy Department

EDUCATION AND TRAINING

Feb. 2011- Sep. 2015

Materials Engineering

Ph.D

Materials and Energy Research Center (MERC), P.O. Box: 14155-4777, Tehran, Iran.

- Title of thesis: Electrodeposition of copper indium aluminium diselenide (CuIn(Al)Se₂) alloys compound for thin film solar cell applications, Thesis (19.80/20)
- Visiting Scholar (6 month): Started from May 2014, Department of Chemistry and NIS Center of excellence, University of Turin (collaboration with the Oligom project- a shared project between University of Oslo-Norway and University of Turin-Italy)
- GPA: 19.41/20

Jan. 2006 – July 2009

Materials Engineering-Ceramic

M.Sc.

Materials and Energy Research Center (MERC), P.O. Box: 14155-4777, Tehran, Iran.

- Materials and Energy Research Center, Tehran-Iran, Rank: First student.
- Title of thesis: Synthesis and study the nanostructures of europium and erbium doped yttrium luminescent compounds. (20/20)
- GPA: 18.39/20

Sep. 2001– Aug. 2006

Materials Engineering-Extractive metallurgy

B.Sc.

Dep. of Mining, Metallurgy and Petroleum Engineering, AmirKabir University of Technology (Tehran Polytechnic), Tehran-Iran

- Title of project: Investigation of Effective Parameters on Continuous electrowinning of zinc (17/20)
- GPA: 14.17/20

PERSONAL SKILLS

Mother tongue(s) Persian (national language)

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	C1	B1	B1	C2
TOEFL (12 Dec 2009) and MSRT (Iranian National English language assessment exam, March 2014)					

Communication skills

Good communication skills gained through my experience as researcher in different universities

Organisational / managerial skills

- Scientific Manager of Vandad Fan Gostar Company (vfg-co.ir)

Job-related skills

1. familiar with different chemical and physical deposition techniques utilized in preparation of thin film semiconductors
2. Familiar with In operando (in situ) characterization of catalyst (gas/solid heterogeneous catalysis) as well as determination of different active sites on the surface of different adsorbents and catalysts (nanostructured porous materials e.g. zeolites) with probe molecules.
3. I have practical experiences about material characterization (especially characterization of materials by XRD pattern analysis & optical spectroscopy). I am familiar with following analysis technique: SEM, TG-DTA, TEM, EDX, SAXS, AFM, SAED, XPS, FTIR and Raman.
4. Nanostructural material synthesis (Sol-Gel method, Hydrothermal and Solvothermal method, template base synthesis, Nanocasting, combustion and microwave assistant solution combustion method).
5. Familiar with various vacuum pump and vacuum systems as well as sputtering instruments.

Computer skills

1. Computer software (Microsoft Office [word, excel, access, power point], Photoshop, AutoCAD, Corel Draw, XRD analysis software, ImagJ, Origin SPSS & ...)
I am familiar with XRD analysis software including MAUD, GSAS, Fullprof Suite (for Rietveld Analysis), X'pert HighScore and Match! (for phase determination), pdfgetx2 and rad-1.0 (for pair distribution function analysis), Pearson's Crystal Data (Crystal Structure Database for Inorganic Compounds), mercury & Diamond (for visualization of unit cell).
2. Computer programming (Matlab, Visual Basic, Pascal, C++).
3. Using neural network, Genetic algorithm and fuzzy logic for prediction, Modelling, estimation and optimization

Other skills

1. Familiar with electronics, robotics, AVR microcontroller, and their related software: Bascom for programming & Proteus for electrical circuit simulation). I fabricate some prototype lab. instrument using my skills in electronic:
 - a. Fabrication of controllable high voltage system 0-35kV , f=0.1-500 kHz, 300 w (for electrospinning application, as ozone generator and catalyst functionalizing)
 - b. Fabrication of homemade cheap ultrasonic spray pyrolysis
 - c. Fabrication of peristaltic pump and controllable syringe injection pump
 - d. Fabrication of high temperature tube furnace with usb port for controlling the furnace by computer

Driving licence

- B1

ADDITIONAL INFORMATION

References

Dr. Gloria Berlier (Researcher, University of Turin, Torino, Italy) Email: gloria.berlier@unito.it
 Dr. Mahmood Kazemzad (Visiting professor, Delft University of Technology, Delft, Netherlands), Email: m.kazemzadasiabi@tudelft.nl
 Prof. Silvia Bordiga (Professor, Department of Chemistry and head of NIS Center of excellence, University of Turin, Torino, Italy and Profesor II Chemistry Dep. of University of Oslo), Email: silvia.bordiga@unito.it
 Prof. Toraj Ebadzadeh (Professor, Materials and Energy Research Center), Email: t-ebadzadeh@merc.ac.ir
 Prof. Mansor Keyanpour-Rad (Professor, Materials and Energy Research Center), Email: Kianpour@merc.ac.ir

Award and Honors

1. The Top M.Sc Graduate Student in Materials Engineering (Ceramic), Materials and energy research center, Karaj-Tehran, Iran.
2. Accepted as Ph.D. Student by gifted talents quota in Materials and energy research center, Tehran, Iran.
3. Accepted in Iranian physics Olympiad first level exam (2000)
4. Introduced as a scientific elite by the National Elite Institute (www.bmn.ir)
5. Winner of the WWS2 fellowship of University of Turin (2015).

[Publications](#)
[Presentations](#)
[Projects](#)
[Conferences](#)
[Seminars](#)
[Memberships](#)

SELECTED JOURNAL PAPERS (link to full list of publication at google scholar more than **20** ISI Paper: <http://scholar.google.com/citations?user=DJcsTpcAAAAJ&hl=en>) :

1. **Yadolah Ganjkanlou**, Azarmidokht Hosseinnia, Mahmood Kazemzad, Abdolmajid Bayandori Moghadam, Ali khanlarkhani, Y2O3: Eu,Zn nanocrystals as a fluorescent probe for the detection of biotin, *Microchim Acta*, Vol. 177, (2012) pages 473–478.
2. **Yadolah Ganjkanlou**, Mahmood Kazemzad, Fereidoun Alikhani Hessari, Chromaticity Dependence on Eu Concentration in Y2O3:Eu Nanopowders, *Nano*, Vol. 5, No. 2 (2010) pages 111–116
3. **Yadolah Ganjkanlou**, Fereydoun Alikhani Hessari, Mahmood Kazemzad, Ghader Darbandi, Distribution of Eu ion in nano-size Y2O3:Eu powder prepared by solution combustion method, *Physica Status Solidi (c)*. (Publisher: Wiley-VCH), *Phys. Status Solidi C*, (2010) / DOI 10.1002/pssc.200983795 Volume 7, No.11-12, pages 2667-2670
4. Habibeh Hadad Dabaghi, Mahmood Kazemzad, **Yadolah Ganjkanlou**, and Amir Ali Yuzbashi, Electrochemical Preparation Of New Organosilicone Compounds For Functionalizing Of Mesoporous Silica, *Functional Materials Letters*, Vol. 6, No. 3 (2012) 1350031 (4 pages).
5. Mehmaz gharagozlu, **Yadolah Ganjkanlou**, Effect of Fe addition on phase transformation of titanium dioxide nanocrystals prepared by Pechini type sol-gel method, *Micro & Nano Letters*, Volume 7, Issue 8, p.872–875, <http://dx.doi.org/10.1049/mnl.2012.0469>.
6. H. H. Dabaghi, **Y. Ganjkanlou**, M. Kazemzad, A. B. Moghaddam, Relation between conductance, photoluminescence bands and structure of ITO nanoparticles prepared by various chemical methods, *Micro & Nano Letters*, Vol. 6, Iss. 6, 2011, pp. 429–433.
7. N.M. Torkaman, **Y. Ganjkanlou**, M. Kazemzad, H. H. Dabaghi, M. Keyanpour-Rad Crystallographic parameters and electro-optical constants in ITO thin films, *Materials characterization*, Volume :61, Year: 2010, Pages:362–370.
8. Ali Mohammadi, **Yadolah Ganjkanlou**, Mahmood Kazemzad, Abdolmajid Bayandori Moghaddam, Fereidoun Alikhani Hessari, Rassoul Dinarvand, Synthesis of nanocrystalline Y2O3:Eu phosphor through different chemical methods: studies on the chromaticity dependence and phase conversion, *Micro & Nano Letters*, 2012, Vol. 7, Iss. 6, pp. 515–518.

PROCEEDINGS (Selected)

1. Brogaard, Rasmus Yding; **Ganjkanlou, Yadolah**; Andersen, Niels Højmark; Bleken, Bjørn Tore Lønstad; Giordanino, Filippo; Svelle, Stian; Berlier, G; Olsbye, Unni; Bordiga, Silvia. Transition metal-doped zeolite catalysts for ethene oligomerization: characterization by in situ spectroscopy and DFT calculations. NSC2014 - 16th Nordic Symposium on Catalysis; 2014-06-15 - 2014-06-17 UiO.
2. **Yadolah Ganjkanlou**, Fereydoun Alikhani Hessari, Mahmood Kazemzad, Seyed Hamed Aboutalebi, Distribution of Eu ion in nano-size Y2O3:Eu Nanopowder prepared by solution combustion method, TNT 2009, Barcelona, Spain. www.tntconf.org/2009
3. Maryam Salari, Masih Rezaee, **Yadolah Ganjkanlou**, Seyed Hamed Aboutalebi, Pirooz Marashi, Microstructural Evaluation of Mechanochemically Synthesized Nanocrystalline TiO2 Powder via Rietveld Refinement Method, Proceedings of the International Conference on Nanotechnology: Fundamentals and Applications Ottawa, Ontario, Canada, 4-6 August 2010. www.international-aset.com
4. Esmail Tohidloo, **Yadolah Ganjkanlou**, Mahmood Kazemzad and Mehdi Shafii, Effect of Zn addition on optical properties and microstructure of Y2O3:Eu nanopowders by solution combustion method, TNT 2009, Barcelona, Spain. www.tntconf.org/2009

Book

1. A. Bayandori Moghadam, **Y. Ganjkanlou**, F. Ghodarzi, Quantitative applications and basics of luminescent nanoparticles, University of Tehran Press. 2014 (in persian).[book] ISBN: 978-964-03-6707-0.

Patent

1. Europium doped yttrium oxide nanocrystals as a biosensor for biotin-avidin (Vitamin B7 or Vitamin H), Iran national patent, 2011 (390030934).

List of international publication:
2016

- Ganjkanlou, Y., Groppo, E., Bordiga, S., Volkova, M. A., Berlier, G. Incorporation of Ni into HZSM-5 Zeolites: Effects of zeolite morphology and incorporation procedure, **Microporous and Mesoporous Materials** 229, 76-82.

2014-2015

- Ganjkanlou, Y., Ebadzadeh, T., kazemzad, M., Maghsoudipour, A. and Kianpour-Rad, M. (2015). Effect of pH on the electrodeposition of Cu (In, Al) Se₂ from aqueous solution in presence of citric acid as complexing agent. **Surface Review and Letters**.
- Moghaddam, A.B., Gudarzy, F. and Ganjkanlou, Y. (2014). A fluorescent probe for detecting thiamine using the luminescence intensity of nanoparticles. **Journal of fluorescence**, 24(4), 1025-1030.
- Ganjkanlou, Y., Bayandori Moghaddam, A., Hosseini, S., Nazari, T., Gazmeh, A. and Badraghi, J. (2014). Application of Image Analysis in the Characterization of Electrospun Nanofibers. **Iranian J. Chem. Chem. Eng.** 33(2).
- Zobeiri, E., Bayandori Moghaddam, A., Gudarzy, F., Mohammadi, H., Mozaffari, S. and Ganjkanlou, Y. (2015). Modified Eu - doped Y₂O₃ nanoparticles as turn - off luminescent probes for the sensitive detection of pyridoxine. **Luminescence**, 30(3), 290-295.

2013

- Dabaghi, H.H., Kazemzad, M., Ganjkanlou, Y. and Yuzbashi, A.A. (2013). Electrochemical Preparation of New Organosilicone Compounds for Functionalizing of Mesoporous Silica. **Functional Materials Letters**, 6(03), 1350031.
- Gudarzy, F., Moghaddam, A.B., Mozaffari, S., Ganjkanlou, Y., Kazemzad, M., Zahed, R. and Bani, F. (2013). A lanthanide nanoparticle-based luminescent probe for folic acid. **Microchimica Acta**, 180(13-14), 1257-1262.
- Dabaghi, H.H., Kazemzad, M., Ganjkanlou, Y. and Eskandari, R. (2013). Preparation Of Nickel Oxide Embedded Self Organized Titania Nanotubes Array By New Alginate Method As A Supercapacitor Electrode. **Surface Review and Letters**, 20(06), 1350062.
- Ghorashi, M.S., Hosseinnia, A., Hessari, F.A. and Ganjkanlou, Y. (2013). The effect of heat treatment in the reducing atmosphere on the physical properties of TiO₂ thin films prepared by sol-gel method. **Journal of sol-gel science and technology**, 67(2), 236-243.

2012

- Ganjkanlou, Y., Hosseinnia, A., Kazemzad, M., Moghaddam, A.B. and Khanlarkhani, A. (2012). Y₂O₃: Eu, Zn nanocrystals as a fluorescent probe for the detection of biotin. **Microchimica Acta**, 177(3-4), 473-478.
- Gharagozlou, M. and Ganjkanlou, Y. (2012). Effect of Fe addition on phase transformation of titanium dioxide nanocrystals prepared by Pechini-type sol-gel method. **Micro & Nano Letters**, 7(8), 872-875.
- Jafari, A., Ganjkanlou, Y., Kazemzad, M. and Ghorbani, H. (2012). Effect Of Surfactants On The Size, Color, Photoluminescence And Resistivity Of Indium Tin Oxide Nanoparticles Prepared By Co-Precipitation Method. **Surface Review and Letters**, 19(05), 1250054.
- Mohammadi, A., Ganjkanlou, Y., Moghaddam, A.B., Kazemzad, M., Al Hessari, F. and Dinarvand, R. (2012). Synthesis of nanocrystalline Y₂O₃ phosphor through different chemical methods: studies on the chromaticity dependence and phase conversion. **Micro & Nano Letters**, IET, 7(6), 515-518.
- Orooji, Y., Kazemzad, M., Ganjkanlou, Y., Youzbashi, A. and Khanlarkhani, A. (2012). Easy and economical nanocasting method for preparation of carbon adsorbent using low-cost precursors in the presence of a natural zeolite as template. **Micro & Nano Letters**, 7(11), 1136-1139.
- M Pazouki, Y Ganjkanlou, AA Tofigh, MR Hosseini, E Aghaie, M Ranjbar, (2012). Optimizing of Iron Bioleaching from a Contaminated Kaolin Clay by the Use of Artificial Neural Network, **International Journal of Engineering-Transactions B: Applications** 25 (2), 81.

2011

- Dabaghi, H., Ganjkanlou, Y., Kazemzad, M. and Moghaddam, A.B. (2011). Relation between conductance, photoluminescence bands and structure of ITO nanoparticles prepared by various chemical methods. **Micro & Nano Letters**, 6(6), 429-433.
- Moghaddam, A.B., Esmaili, M., Khodadadi, A.A., Ganjkanlou, Y. and Asheghali, D. (2011). Direct electron transfer and biocatalytic activity of iron storage protein molecules immobilized on electrodeposited cobalt oxide nanoparticles. **Microchimica Acta**, 173(3-4), 317-322.
- Mohammadi, A., Badraghi, J., Moghaddam, A.B., Ganjkanlou, Y., Kazemzad, M., Hosseini, S. and Dinarvand, R. (2011). Synthesis of Er₂O₃ nanoparticles and Er₂O₃ nanoparticle/polyaniline deposition on the surface of stainless steel by potentiostatic deposition. **Chem. Eng. Technol.** 34(1), 56-60.
- Mohammadi, A., Ganjkanlou, Y., Kazemzad, M., Moghaddam, A.B., Hessari, F.A. and Dinarvand, R. (2011). Effect of strontium doping on nanostructure and chromaticity of Y₂O₃: Eu compounds. **International Journal of Modern Physics B**, 25(22), 2949-2956.

2010

- Torkaman, N., Ganjkanlou, Y., Kazemzad, M., Dabaghi, H. and Keyanpour-Rad, M. (2010). Crystallographic parameters and electro-optical constants in ITO thin films. **Materials Characterization**, 61(3), 362-370.
- Ganjkanlou, Y., Hessari, F.A., Kazemzad, M. and Darbandi, G. (2010). Distribution of Eu ions in Y₂O₃: Eu nanopowders prepared by solution combustion method. **physica status solidi (c)**, 7(11 - 12), 2667-2670.
- Ganjkanlou, Y., Kazemzad, M. and Hessari, F.A. (2010). Chromaticity dependence on Eu concentration in Y₂O₃: Eu nanopowders. **Nano**, 5(02), 111-116.
- Tohidlou, E., Ganjkanlou, Y., Kazemzad, M. and Afarani, M.S. (2010). Effect of Zn addition on optical properties and microstructure of Y₂O₃: Eu nanopowders prepared by combustion method. **physica status solidi (c)**, 7(11 - 12), 2663-2666
- A Kamaloo, Y Ganjkanlou, SH Aboutalebi, H Noranian, (2010). Modeling of compressive strength of Metakaolin based geopolymers by the use of artificial neural network, **International Journal of Engineering-Transactions A: Basics** 23 (2), 145

Under preparation:

- Ganjkanlou, Y., Crocellà, V., Kazemzad, M., Berlier, G., Safaee, I., Ebadzadeh, T., Maghsoudipour, M. Hydrothermal-Electrochemical single step deposition of CuIn(Al)Se₂ thin films, revised (electrochemistry communication)
- Ganjkanlou, Y., Kazemzad, M., Crocellà, V., Berlier, G., Ebadzadeh, T., electrodeposition of CuIn(Al)Se₂ on different substrates, under preparation
- Ganjkanlou, Y., Groppo, E., Berlier, G., Giordanino, F., Bordiga, S. In situ investigation of coke formation in Ni modified ZSM5 zeolite

- as catalyst of ethylene oligomerization, submitted to the current opinion in catalysis.
- Ganjkhanelou, Y., Kazemzad, M., Lamberti, C., Bordiga, S. Characterization of different types of ordered mesoporous silica by pair distribution function analysis, (under preparation)