

Personal Information

Name: Tarek Taha Ahmed Ali
Date of Birth: 27.04.1967
Place of Birth: Sohag, Egypt
Nationality: Egyptian
Sex: Male
Marital Status: Married and have 4 kids
Mother language: Arabic
Other languages: English (Fluent in speaking, reading and writing)
IT skills: Basic and ability to deal with multiple teaching applications
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Academic Qualifications

- ◆ **06/2002: Ph.D. (Chemistry)**, Chemistry Department, Faculty of Science, Sohag, South Valley University, Egypt in collaboration with Department of Materials Chemistry, Graduate School of Engineering, Tohoku University, Japan.
Thesis title: “Structures and Electronic States of Heteropolyacid Catalysts”
- ◆ **01/1997: M.Sc. (Chemistry)**, Chemistry Department, Faculty of Science, Sohag, South Valley University, Egypt.
Thesis title: “Texture and Catalytic Activity Studies on Zinc-Copper Ferrite Spinel”
- ◆ **10/1992: Preliminary Year “Master Courses”**, Chemistry Department, Faculty of Science, Sohag, South Valley University, Egypt, (Good Grade).
- ◆ **05/1990: B.Sc. (Chemistry)**, Chemistry Department, Faculty of Science, Sohag, Assiut University, Egypt, (Very Good Grade).

Academic Positions

- 1- **Associate Professor;** Chemistry Department, Faculty of Science, Sohag University, Egypt (*28/04/2014 to date*).
- 2- **Assistant Professor;** Chemistry Department, Faculty of Science, Jeddah 21589, King Abdulaziz University, KSA (*01/09/2006 to 30/06/2018*).
- 3- **Assistant Professor;** Chemistry Department, Faculty of Science, Sohag University, Egypt (*12/08/2002 – 27/04/2014*).
- 4- **Assistant Lecturer;** Chemistry Department, Faculty of Science, Sohag, South Valley University, Egypt (*25/02/1997 – 11/08/2002*).
- 5- **Teaching Assistant;** Chemistry Department, Faculty of Science, Sohag, South Valley University, Egypt (*20/01/1992 – 24/02/1997*).

Scientific Activities

- 1- Teaching of practical and theoretical courses in the fields of:
 - Practical Courses:**
 - a- Quantitative & Qualitative Analysis.
 - b- Analytical Chemistry.
 - c- Physical Chemistry.
 - d- Inorganic Chemistry.
 - e- Modern Instrumental Analysis.
 - Theoretical Courses:**
 - a- General Chemistry.
 - b- Industrial Chemistry.
 - c- Catalysis, Solid State Chemistry and Surface Chemistry.
 - d- Phase Rule and Quantum Chemistry.
 - e- Chemical Kinetics and Colloidal Chemistry.
 - f- Advanced Physical Chemistry Courses.
- 2- Supervision of **undergraduate** graduation projects and **postgraduate** dissertations in Surface Chemistry, Catalysis and Photocatalysis:
 - a)** Khalid M. Hassan (*Master student, 2004 – 2007*): Preparation, characterization and catalytic activity studies on heteropolyacids and their substituted salts (Sohag University, Egypt).
 - b)** Asma Ali Otaif (*Master student, 2013 – 2015*): Preparation and photocatalytic performance of nano zinc oxide doped with rare earth metal oxides (King Abdulaziz University, Saudi Arabia).
 - c)** Alaa Jilan Faqeeh (*Master student, 2015 – 2017*): Catalytic Activity Study of Nanogold Supported on Rare Earth Metal Oxide Modified CeZrO₂ Catalyst (King Abdulaziz University, Saudi Arabia).

- d) Safaa Mohamed Nasif (*Master student, 2016 – 2018*): Synthesis of graphene supported ZnO–rare earth metal oxide ternary nanocomposites for enhanced photocatalytic applications (King Abdulaziz University, Saudi Arabia).

Research Interests

Nanocomposite metal oxides synthesis and applications, oxidation catalysis, acid – base catalysis, photocatalysis, Surface and Bulk characterization, Green chemistry and selective catalytic reduction of nitrogen oxides.

Fellowships

- 1- A doctoral fellowship financed by the Egyptian Government at Department of Materials Chemistry, Graduate School of Engineering, Tohoku University, Sendai, Japan, from **06/07/1999** to **09/10/2001**.
- 2- Visiting Researcher to Tohoku University, Department of Applied Chemistry, Graduate School of Engineering, Sendai, Japan, from **01/07/2003** to **01/08/2003**.
- 3- Postdoctoral fellowship to Tohoku University, Department of Applied Chemistry, Graduate School of Engineering, Sendai, Japan, from **26/02/2004** to **24/02/2005**.
- 4- Visiting researcher to Lehrstuhl für Chemische Reaktionstechnik, Institut für Chemie – und Bioingenieurwesen, Friedrich – Alexander Universität, Erlangen – Nürnberg, Germany, from **06/07/2010** to **04/08/2010**.
- 5- Research scientist to Department of Physical Chemistry, Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic, from **14/06/2014** to **16/08/2014**.
- 6- Visiting researcher to Lehrstuhl für Chemische Reaktionstechnik, Institut für Chemie – und Bioingenieurwesen, Friedrich – Alexander Universität, Erlangen – Nürnberg, Germany, from **01/07/2016** to **25/08/2016**.

Training Courses

- 1- Training course in **electron microscopy** (techniques & interpretation), South Valley University, Sohag, **from 08/03/1997** to **11/08/1997**.
- 2- Training course in **Surface Area and Chemisorption Analyzer** Instrument, Micromeritics Company, Atlanta, Georgia, USA, from **23/08/1998** to **05/09/1998**.

- 3- First Spring School on Current Activities of **Materials Science** (CAMS), organized jointly between Assiut University (Egypt) and Tohoku University (Japan), from **24/04/1999** to **28/04/1999**.
- 4- Training course in **DIFFRAC^{Plus} Basic Training Course**, held at the Bruker AXS training center in Karlsruhe, Germany from **12/09/2011** to **16/09/2011**.

Research Projects

- 1- Strategic Project No. 11 – NAN2057 – 3 financially supported from King Abdulaziz City for Science and Technology titled “The design of new composite materials containing metal oxide supported 2D-graphene sheets”. (2013 – 2015).
- 2- Strategic Project No. 8 – NAN184 – 3 financially supported from King Abdulaziz City for Science and Technology titled “Preparation and Characterization of Nanocomposite Metal Oxide Supported Zirconia Catalysts for Abatement of Environmental pollutant NO_x Gases”. (2010 – 2012)
- 3- Research Project No. MQ 10/14 financially supported from SABIC Company titled “Preparation, characterization and surface acidity studies on environmentally friendly catalysts” (2009).
- 4- Research Project No. 3 – 87/429 financially supported from deanship for scientific research at King Abdulaziz University titled “Texture and catalytic activity measurements on silver and copper substituted solid acid catalysts” (2009).
- 5- Research Project No. MQ 12/474 financially supported from SABIC Company titled “Influence of the Preparation methods on the thermal decomposition and phase structure of Zirconia: In-situ XRD measurements” (2011).
- 6- Research project no. T-81/429 supported from King Abdulaziz University in collaboration with BioNano consulting office and London centre for nanotechnology, University College, London, U.K., titled “Nanocatalysts for wastewater treatment” (2009-2011).
- 7- Research project no. D-005/432 supported from King Abdulaziz University in collaboration with BioNano consulting office and Imperial College, London, UK, titled “Development of novel photocatalysts using a combinatorial chemistry approach” (2011-2013).
- 8- Research Project No. MQ 14/325 financially supported from SABIC Company titled “Effect of structure and physical properties of nano sized zirconia on its photocatalytic activity” (2013).

- 9- Research Project No. 3 – 87/429 financially supported from Deanship for Scientific Research at King Abdulaziz University titled “Formation of High Surface Area Catalytic Silica Materials via Drying Additives Control” (2014).

Meetings, Conferences and Workshops

- 1- 85th Japan Catalysis Society Meeting, Tokyo, Japan, **March 27, 2000.**
- 2- 78th Japan Chemical Society Meeting, Chiba, Japan, **March 30, 2000.**
- 3- International Symposium of Molecular Design of Catalysis, Sendai, Japan, **August 2000.**
- 4- 86th Japan Catalysis Society Meeting, Tottori, Japan, **October 22, 2000.**
- 5- Bangkok International Conference on Heterogeneous Catalysis, Bangkok, Thailand, **January 7 – 9, 2001.**
- 6- 4th ICRS International Symposium, Sendai, Japan, **February 16, 2001.**
- 7- 87th Japan Catalysis Society Meeting, Osaka, Japan, **March 28, 2001.**
- 8- 79th Japan Chemical Society Meeting, Osaka, Japan, **March 30, 2001.**
- 9- International Symposium on Acid – Base Catalysis IV (ABC IV), Matsuyama, Japan, **May 7 – 12, 2001.**
- 10- International Conference on Nanotechnology, Jeddah, KSA, **June 2008.**
- 11- International Workshop in Advanced Materials (IWAM 2010), Ras Al Khaimah, AUE, **February 2010.**
- 12- International Workshop in Advanced Materials (IWAM 2012), Ras Al Khaimah, AUE, **February 2012.**
- 13- Third International Conference on Multifunctional, Hybrid and Nanomaterials (Hybrid Materials 2013), Sorrento – Naples, Italy, **3-7 March 2013.**
- 14- Short Summer School on Thermal Analysis and Calorimetry, Vilnius, Lithuania, **27th August 2013.**
- 15- 2nd Central and Eastern European Conference on Thermal Analysis and Calorimetry, Vilnius, Lithuania, **27 – 30 August 2013.**
- 16- 1st International Porous and Powder Materials Symposium (PPM 2013), Izmir, Turkey, **3 – 6 September, 2013.**

- 17- SETCOR International Conference on Nanotechnology (NANOTECH DUBAI 2013), **28 – 30 October 2013**, Dubai, United Arab Emirates.

Scientific Memberships

- **CSJ**, The Chemical Society of Japan (Membership number: 2000630500).
- **ACS**, American Chemical Society (Membership number: 30378602).
- **CSC**, Canadian Society of Chemistry (Membership number: 607318).
- **MRSC**, Royal Society of Chemistry Member (Membership number: 513289).
- **ESSP**, Egyptian Syndicate of Scientific Professions, Egypt .

Awards

- 1- The award of excellence of scientific publication for the staff members 2010, deanship of scientific research, King Abdulaziz University.
- 2- The award of excellence of scientific publication for the staff members 2014, deanship of scientific research, King Abdulaziz University.
- 3- The award of excellence of scientific publication for the staff members 2015, deanship of scientific research, King Abdulaziz University.
- 4- The award of excellence of scientific publication for the staff members 2016, deanship of scientific research, King Abdulaziz University.
- 5- The award of high citation of scientific publication for the staff members 2016, deanship of scientific research, King Abdulaziz University.
- 6- The outstanding teaching award 2018, University Vice Presidency of Academic Affairs, King Abdulaziz University.

Journal Reviewer

Reviewing different articles for: Journal of Alloys and compounds, Chemical Engineering Journal, Materials Letters, New Journal of Chemistry, Powder Technology, Journal of Porous Materials, Composites B: Engineering, Chemical Communication, Journal of the Brazilian Chemical Society, RSC advances, Crystal Engineering Communication, Physical Chemistry Chemical Physics, Green Chemistry, Microporous and Mesoporous Materials, Journal of Materials Chemistry A and Fuel journal.

List of publications

- 1- “Computational chemistry study on the selective oxidation and ammoxidation of alkenes on bismuth molybdate catalyst”, Terumasa Yamasaki, **Tarek Taha**, Hideyuki Tsuboi, Michihisa Koyama, Momoji Kubo, and Akira Miyamoto, Dept. of Appl. Chem., Tohoku Univ. ; NICHe, Tohoku Univ. , JST-PRESTO , Asahi KASEI Corp., 5th World Congress on Oxidation Catalysis, Hokkaido, September 2005.
- 2- “Direct formation of thermally stabilized amorphous mesoporous Fe₂O₃/SiO₂ nanocomposites by hydrolysis of aqueous iron (III) nitrate in sols of spherical silica particles”, Kamal M.S. Khalil, Hatem A. Mahmoud, and **Tarek T. Ali**, *Langmuir*, 24(3) (2008) 1037 – 1043.
- 3- “Copper substituted heteropolyacid catalysts for the selective dehydration of ethanol”, **Tarek T. Ali**, S.A. Al-Thabaiti, A.O. Alyoubi and M. Mokhtar, *J. Alloys and Compounds*, 496 (2010) 553 – 559.
- 4- “Laboratory scale water circuit including a photocatalytic reactor and a portable in-stream sensor to monitor pollutant degradation”, Patrick Nickels, Hang Zhou, Sulaiman N. Basahel, Abdullah Y. Obaid, **Tarek T. Ali**, Ahmed A. Al-Ghamdi, El-Sayed H. El-Mossalamy, Abdulrahman O. Alyoubi, and Stephen A. Lynch, *Ind. Eng. Chem. Res.*, 51(8) (2012) 3301 – 3308.
- 5- “Effect of iron oxide loading on the phase transformation and physicochemical properties of nanosized mesoporous ZrO₂”, S.N. Basahel, **Tarek T. Ali**, K. Narasimharao, A.A. Bagabas, M. Mokhtar, *Mat. Res. Bull.*, 47 (2012) 3463 – 3472.
- 6- “Photocatalytic activity of doped and undoped titanium dioxide nanoparticles synthesised by flame spray pyrolysis”, Irene E. Paulauskas, Deena R. Modeshia, **Tarek T. Ali**, Elsayed H. El-Mossalamy, Abdullah Y. Obaid, Sulaiman N. Basahel, Ahmed A. Al-Ghamdi and Felicity K. Sartain, *Platinum Metals Review*, 57 (1) (2013) 32 – 43.
- 7- “Effect of synthesis methods for mesoporous zirconia on its structural and textural properties”, Mohamed Mokhtar, Sulaiman N. Basahel and **Tarek T. Ali**, *J. Mat. Sci.*, 48 (6) (2013) 2705 – 2713.
- 8- “Titania nanoparticles by acidic peptization of xerogel formed by hydrolysis of titanium(IV) isopropoxide under atmospheric humidity conditions”, Kamal M.S. Khalil, Rafat M. El-Khatib, **Tarek T. Ali**,

- Hatem M. Mahmoud and Ahmed A. Elsamahy, *Powder Techn.*, 245 (2013) 156 – 162.
- 9- “Catalytic oxidative cracking of propane over nanosized gold supported $\text{Ce}_{0.5}\text{Zr}_{0.5}\text{O}_2$ catalysts”, Katabathini Narasimharao and **Tarek T. Ali**, *Catal. Letters*, 143 (10) (2013) 1074 – 1084.
 - 10- “Ethanol to hydrocarbons using silver substituted polyoxometalates: Physicochemical and catalytic study”, Mohamed Mokhtar, Sulaiman N. Basahel and **Tarek T. Ali**, *J. Ind. Eng. Chem.*, 20 (2014) 46 – 53.
 - 11- “Nanosized iron and nickel oxide zirconia supported catalysts for benzylolation of benzene: Role of metal oxide – support interaction”, **Tarek T. Ali**, Katabathini Narasimharao, Nesreen S. Ahmed, Sulaiman Basahel, Shaeel Al-Thabaiti, and Mohamed Mokhtar, *Appl. Catal. A: General*, 486 (2014) 19 – 31.
 - 12- “Effect of Si precursor on structural and catalytic properties of nanosize magnesium silicates”, Narasimharao Katabathini, **Tarek T. Ali**, Salem Bawaked, Sulaiman Basahel, *Appl. Catal. A: General*, 488 (2014) 208 – 218.
 - 13- “Effect of pretreatment temperature on photo catalytic activity of microwave irradiated porous nanocrystalline ZnO ”, **Tarek T. Ali**, Katabathini Narasimharao, Ivan P. Parkin, Claire J. Carmalt, Sanjayan Sathasivam, Sulaiman N. Basahel , Salem M. Bawaked, Shaeel A. Al-Thabiti, *New Journal of Chemistry*, 39(1) (2015) 321 – 332.
 - 14- “Influence of crystal structure of nanosized ZrO_2 on photocatalytic degradation of methyl orange”, Sulaiman N. Basahel , **Tarek T. Ali**, Mohamed Mokhtar, Katabathini Narasimharao, *Nanoscale Research Letters*, 10 (2015) 73.
 - 15- “Effect of preparation conditions on structural and catalytic properties of lithium zirconate”, Katabathini Narasimharao, **Tarek T. Ali**, *Ceramics International*, 42 (2016) 1318.
 - 16- “Physico-Chemical and Catalytic Properties of Mesoporous CuO-ZrO_2 Catalysts”, Sulaiman N. Basahel, Mohamed Mokhtar, Edreese H. Alsharaeh, **Tarek T. Ali**, Hatem A. Mahmoud and Katabathini Narasimharao, *Catalysts*, 6 (2016) 57.
 - 17- “Photocatalytic Photocatalytic Degradation of p-Nitrophenol in Aqueous Suspension by Using Graphene/ ZrO_2 Catalysts”, Sulaiman N. Basahel, Mohamed Mokhtar, Edreese H. Alsharaeh, **Tarek T. Ali**, Hatem A. Mahmoud and Katabathini Narasimharao, *Nanoscience and Nanotechnology Letters*, 8 (2016) 448.
 - 18- “Effects of Nd-, Pr-, Tb- and Y-doping on the structural, textural, electrical and N_2O decomposition activity of mesoporous NiO

- nanoparticles”, Bahaa M. Abu-Zied, Salem M. Bawaked, Samia A. Kosa, **Tarek T. Ali**, Wilhelm Schwieger, Faisal M. Aqlan, *Applied Surface Science*, 419 (2017) 399.
- 19- “Influence of preparation conditions on the catalytic activity of high surface”, **Tarek T. Ali**, Sulaiman N. Basahel, Hatem A. Mahmoud, Kamal M.S. Khalil, Katabathini Narasimharao, *Chemical Engineering Journal*, 330 (2017) 852.
- 20- “Acidic Peptizing Agent Effect on Anatase- Rutile Ratio and Photocatalytic Performance of TiO₂ Nanoparticles”, Hatem A. Mahmoud, Katabathini Narasimharao, **Tarek T. Ali** and Kamal M. S. Khalil, *Nanoscale Research Letters*, 13 (2018) 48.
- 21- “Fabrication, characterization and catalytic activity measurements of nanocrystalline Ag-Cr-O catalysts”, Bahaa M. Abu-Zied and **Tarek T. Ali**, *Applied Surface Science*, 457 (2018) 1126.
- 22- “Nanosized samarium modified Au-Ce_{0.5}Zr_{0.5}O₂ catalysts for oxidation of benzyl alcohol”, Alaa J. Fageeh, **Tarek T. Ali**, Sulaiman N. Basahel and Katabathini Narasimharao, *Mol. Catal.*, 456 (2018) 10.