### Prof. Mohammed Rafiq Hussain Siddiqui Curriculum Vitae

**Research Interests**

**Catalysis & Material Sciences**

* **Catalysis for Environment**
* Catalysts for low temperature CO oxidation, using gold nanoparticles and other mixed oxides.
* Selective catalytic reduction (SCR) of NOx on Cu-ZSM-5.
* Single metal based catalyst for hydrodesulfurization (HDS).
* Low temperature ionic liquids.
* Dry reforming of methane and CO2 using nickel based catalysts.
* **Industrial Catalysis**
* Gas phase selective oxidation of propene to propene oxide using supported gold nanoparticles.
* Selective liquid phase oxidation of alcohols to aldehydes using mixed oxide catalysts.
* Oxidative dehydrogenation properties of novel nanostructured polyoxovanadate based materials.
* Catalytic synthesis of chlorosilanes by Rochow Direct process.
* Chemistry of Molybdenum and Zirconium in strong acid for nuclear reprocessing materials.
* **Basic Research in Catalysis**
* Coking and catalyst regeneration studies.
* Activation of butane using modified zeolite catalysts.
* Eantioselective catalytic dehydration of butan-2-ol using chirally modified zeolites.
* In-situ catalyst characterization by EXAFS using synchrotron radiation source at Daresbury.
* Structural and thermal properties of transition metal based ionic liquids.
* **Advanced Materials**
* Precursors for controlled crystallite growth: Synthesis, properties and X-Ray diffraction studies of amine and thioether capped gold nanoparticles.
* Synthesis and characterization of nanoparticles using several methods and precursors.
* Applications of nanoparticles.
* Effects of gamma radiation on organic and inorganic materials.
* Nanocomposites, synthesis, characterization and applications.
* Synthesis and catalytic applications of graphene nanocomposites.

**Research Collaborations**

* **International Collaborations**
* Prof. Zhou Hongcai Joe Highly Cited Professor at Texas A&M University
* Prof. W. Tremel’s group at Max Planck Institute for Polymer Research, Postfach 3148, D-55021 Mainz, Germany
* Prof. Luis Marzan’s Highly cited Professor at Bionanoplasmonics Laboratory, CIC biomaGUNE, Paseo de Miramon 182, 20009 Donostia – San Sebastian, Spain
* Prof. Ivan Kozhevnikov’s group at Chemistry Department, University of Liverpool, United Kingdom
* **Local Collaborations**
* Extensive collaboration with several research groups within the department.
* Faculty at Department of Chemical Engineering, King Saud University.
* Scientists at King Abdul Aziz City for Science and Technology, Riyadh. (KACST)

**Teaching Experience**

* Chem 101 General chemistry for chemistry and non-chemistry students
* Chem 499 Instrumentation training
* Chem 620 Advanced inorganic chemistry
* NMR Spectroscopy with special relevance to inorganic chemistry including 2D NMR
* Spectroscopic methods in inorganic chemistry

**Recent Work & Responsibilities @ King Saud University (KSU)**

* In-charge of Nuclear Magnetic Resonance NMR facilities for chemistry Department
* Supervised over half a dozen PhD and MSc students, examiner for several Master and PhD students
* PhD Thesis examiner for International Universities
* PhD Thesis examiner for Department of Chemical Engineering, King Saud University
* Delivered several invited lectures, conference presentations and poster presentations
* Co-chairman and chairperson of scientific session
* Recruitment of foreign Master and PhD students
* Member accreditation committee for science college KSU
* Member E-learning committee for Chemistry Department; KSU
* Preparing School students for International chemistry Olympiad IChO

**Scholastic Contributions**

**Associate Editor**, Journal of Saudi Chemical Society

**Member**, American Chemical Society

**Referee** for several journals of international repute including:

* Applied Catalysis
* Catalysis Letters
* Journal of molecular catalysis
* Royal Society Journals
* International Journal of Molecular Science
* Journal of Saudi Chemical Society
* Arabian Journal of Chemistry

**Research Projects and Funding**

1. Principal investigator of **various** minor project funded by Research Centre, Faculty of Science, KSU dealing with selective catalytic oxidation using rhenium complexes.
2. Principal investigator of minor project funded by SABIC concerning selective catalytic oxidation of alcohols to aldehydes using metal oxide catalysts.
3. Principal investigator of a major project funded by KACST for selective catalytic oxidation of propylene using gold nanoparticles. (nearly one million Saudi riyals)
4. Principal investigator of a project from KETT (Knowledge exchange and technology transfer, KSU) on silver nanoparticles – synthesis and applications.
5. Principal investigator of a project from KETT (King Saud University) “Green synthetic methods for various metals nanoparticles” with wide ranging applications.
6. Co-investigator of a major project in collaboration with IIT Illinois, US entitled “Design, Synthesis and Characterization of Nanostructured Materials for Applications in Catalysis.” Funded by KSU for nearly 500,000 US Dollars.
7. Principal investigator of a major project funded by NPST program on graphene synthesis and its applications. Nearly two million Saudi Riyals. (Current)
8. Co-investigator of a major project on catalytic hydrodesulfurization funded by NPST program for nearly 1.75 million Saudi Riyals. (Current)

**Personal Details**

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| **URL** | <http://faculty.ksu.edu.sa/rafiqsiddiqui/default.aspx> |
| **Marital status** | Married with three kids |
| **Nationality** | Indian (Permanent resident of UK) |
| **Date of Birth** | 15 May 1957 |

**Career & Employment Record**

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| **Designation Held** | **Address** | **Duties Performed** |
| **Professor**  Jan 2014- Till date | Department of Chemistry,  College of Science, King Saud University, Riyadh, KSA |  |
| **Associate Professor**  May 2009 –Dec 2013 | Department of Chemistry,  College of Science, King Saud University, Riyadh, KSA |  |
| **Assistant Professor**  Feb 2004- May 2009 | Department of Chemistry,  College of Science, King Saud University, Riyadh, KSA |  |
| **Group Leader, Heterogeneous Catalysis Group**  Aug 2002 – Aug 2003 | Stylacats Ltd.  Department of Chemistry  The Robert Robinson Laboratories  The University of Liverpool  Liverpool, UK  L69 7ZD | Catalysis by zeolites, metal oxides and Heteropoly acids. |
| **Leverhulme Research Fellow**  Apr 1990 –Aug 2002 | Leverhulme Centre for Innovative Catalysis (LCIC), Dept. of Chemistry, Univ. of Liverpool, Liverpool, L69 3BX UK | * + Research in Heterogeneous Catalysis, * Grant proposals, * Supervising Master and PhD students. |
| **Scientist**  Dec. 1986 - Aug. 1993 | Central Salt & Marine Chemicals Research Institute (CSMCRI), Bhavnagar, Gujarat, India. | * + Homogeneous Catalysis by Metal complexes   + Heterogenized Homogeneous Catalysis. |
| **Senior Scientific Assistant**  Sep. 1983 - Dec. 1986 | C.S.M.C.R.I., Bhavnagar, Gujarat, India | * + Homogeneous Catalysis by Metal Complexes |

**List Of Publications**

* **Books**
* Translated two books on NMR from Oxford University press, to Arabic language. Publisher - King Saud University Press.
* GRAPHENE-INORGANIC NANOCOMPOSITES: SYNTHESIS and APPLICATIONS. Publisher - King Saud University Press.
* **Granted Patents**

1. Method for preparing metal oxide nanoparticles; EP2709954(B1)  
   2016-05-04;
2. Method for coating a substrate with silver nanoparticles; EP2718478(B1)  
   2016-03-23
3. Method for esterification and esterification catalyst; EP2720998(B1)  
   2016-12-14
4. Process for the preparation of clay loaded metal complexes catalyst useful for the hydrogenation of oils and other unsaturated compounds; IN169191(B) 1987-11-24
5. A process for the hydrogenation of oils and other unsaturated compounds; IN169124(B) 1991-09-07
6. Two more patents are in the process of filing they deal with development of new catalysts for C3 conversion and bio-diesel.

* **Publications in Refereed Journals**

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| 1. M. Asimuddin.; Mohammed Rafi Shaik.; Neeshat Fathima.; M. Shaistha Afreen.; Syed Farooq Adil.; Mohammed Rafiq H. Siddiqui.; Kaiser Jamil.; Mujeeb Khan “STUDY OF ANTIBACTERIAL PROPERTIES OF ZIZIPHUS MAURITIANA BASED GREEN SYNTHESIZED SILVER NANOPARTICLES AGAINST VARIOUS BACTERIAL STRAINS” sustainability-717524, 2020 (Article in Press) 2. Mujeeb Khan.; Mohammed Rafi Shaik.; Shams Tabrez Khan.; Syed Farooq Adil.; Mufsir Kuniyil.; Majad Khan.; Abdulrahman A. Al-Warthan.; Mohammed Rafiq H. Siddiqui.; Muhammad Nawaz Tahir “ENHANCED ANTIMICROBIAL ACTIVITY OF BIOFUNCTIONALIZED ZIRCONIA NANOPARTICLES” ACS Omega 2020, Volume 5, Issue 4, Pages 1987−1996 3. Mohammed Rafi Shaik.; Syed Farooq Adil.; Mufsir Kuniyil.; Muhammad Sharif.; Abdulrahman Alwarthan.; Mohammed Rafiq H. Siddiqui.; Mohd. Imtiaz Ali.; Muhammad Nawaz Tahir and Mujeeb Khan “Facile Sonochemical Preparation of Au-ZrO2 Nanocatalyst for the Catalytic Reduction of 4-Nitrophenol” Applied Sciences 2020, Volume 10, Issue 2, 503. 4. Muhammad Waqar.; Muhammad Imran.; Syed Farooq Adil.; Sadia Noreen.; Shoomaila Latif.; Mujeeb Khan.; Mohammed Rafiq H. Siddiqui “Enhanced Photoluminescence and Photocatalytic Efficiency of La-Doped Bismuth Molybdate: Its Preparation and Characterization” Materials 2020, 13(1), 35; 5. M. Asimuddin, Mohammed Rafi Shaik, Syed Farooq Adil, Mohammed Rafiq H. Siddiqui, Abdulrahman Al–Warthan, Kaiser Jamil, Mujeeb Khan “Azadirachta indica based biosynthesis of silver nanoparticles and evaluation of their antibacterial and cytotoxic effects” Journal of King Saud University – Science, 2020 Volume 32, Issue 1, Pages 648-656. 6. Azam, M.; Al-Resayes, S.I.; Alam, M.; Trzesowska-Kruszynska, A.; Kruszynski, R.; Siddiqui, M.R.H, “A new ladder-type dichloro(2,2-dimethyl-1,3-diaminopropane) copper complex: Synthesis, structural studies and selective sensing behavior towards a ketone molecule” Volume 170, 15 September 2019, Pages 287-293 7. Syed Farooq Adil.; Mohamed E. Assal.; Mohammed Rafi Shaik.; Mufsir Kuniyil.; Nawaf M. AlOtaibi.; Mujeeb Khan.; Muhammad Sharif.; M. Mujahid Alam.; Abdulrahman Al-Warthan.; Jabair Ali Mohammed.; Mohammed Rafiq H Siddiqui and Muhammad Nawaz Tahir., A Facile Synthesis of ZrOx-MnCO3/Graphene Oxide (GRO) Nanocomposites for the Oxidation of Alcohols using Molecular Oxygen under Base Free Conditions. Catalysts 2019, 9, 759. 8. Mufsir Kuniyil.; J. V. Shanmukha Kumar.; Syed Farooq Adil.; Mohammed Rafi Shaik.; Mujeeb Khan.; Mohamed E. Assal.; Mohammed Rafiq H. Siddiqui and Abdulrahman Al-Warthan., One-Pot Synthesized Pd@N-Doped Graphene: An Efficient Catalyst for Suzuki–Miyaura Couplings. Catalysts 2019, 9, 469. 9. M. E. Assal.; M. R. Shaik.; M. Kuniyil.; M. Khan.; A. Al-Warthan.; A. I. Alharthi.; R. Varala.; M. R. H. Siddiqui.; S. F. Adil., Ag2O nanoparticles/MnCO3, –MnO2 or –Mn2O3/highly reduced graphene oxide composites as an efficient and recyclable oxidation catalyst. Arabian Journal of Chemistry 2019, 12 (1), 54–68. 10. M. E. Assal.; M. R. Shaik.; M. Kuniyil.; M. Khan.; A. Al-Warthan.; M. R. H. Siddiqui.; S. F. Adil., ZnOx–MnCO3, –MnO2 or –Mn2O3 deposited on highly reduced graphene oxide nanocomposites: as an efficient catalyst for aerial oxidation of different types of alcohols. Oxidation Communications 2018, 41, No 3, 372–392. 11. M. E. Assal.; M. R. Shaik.; M. Kuniyil.; M. Khan.; A. Al-Warthan.; M. R. H. Siddiqui.; J. P. Labis.; R. Varala.; S. F. Adil., Synthesis, characterization and relative catalytic study of ZrOx-MnCO3, –MnO2 or -Mn2O3 deposited on highly reduced graphene oxide nanocomposites for aerobic oxidation of secondary alcohols. International Journal of Chemical Technology 2018 (In press). 12. M. Khan.; M. R. Shaik.; S. F. Adil.; S. T. Khan.; A. Al-Warthan.; M. N. Tahir.; W. Tremel., Plant extracts as green reductants for the synthesis of silver nanoparticles: lessons from chemical synthesis. Dalton Transactions, 2018, 47, 11988-12010 13. M. E. Assal.; M. R. Shaik.; M. Kuniyil.; M. Khan.; A. Al-Warthan.; M. R. H. Siddiqui.; S. F. Adil., Ag2O nanoparticles-doped manganese immobilized on graphene nanocomposites for aerial oxidation of secondary alcohols. Metals 2018, 8 (6), Article number 468. 14. M. R. Shaik.; M. Khan.; M. Kuniyil.; A. Al-Warthan.; H. Z. Alkhathlan.; M. R. H. Siddiqui.; J. P. Shaik.; A. Ahamed.; A. Mahmood.; M. Khan.; S. F. Adil., Plant-Extract-Assisted green synthesis of silver nanoparticles using Origanum vulgare L. Extract and their microbicidal activities. Sustainability 2018, 10 (4), Article number 913. 15. M. Azam.; S. I. Al-Resayes.; S. M. Wabaidur.; A. Trzesowska-Kruszynska.; R. Kruszynski.; R. K. Mohapatra.; M. R. H. Siddiqui., Cd (II) complex constructed from dipyridyl imine ligand: Design, synthesis and exploration of its photocatalytic degradation properties. Inorganica Chimica Acta 2018, 471, 698-704. 16. M. E. Assal.; M. R. Shaik.; M. Kuniyil.; M. Khan.; A. Al-Warthan.; M. R. H. Siddiqui.; S. M. A. Khan.; W. Tremel.; M. N. Tahir.; S. F. Adil., A highly reduced graphene oxide/ZrOx–MnCO3 or–Mn2O3 nanocomposite as an efficient catalyst for selective aerial oxidation of benzylic alcohols. RSC Advances 2017, 7 (87), 55336-55349. 17. M. E. Assal.; M. R. Shaik.; M. Kuniyil.; M. Khan.; A. Al-Warthan.; A. Y. Alzahrani.; A. Al–Warthan.; S. A. Al-Tamrah.; M. R. H. Siddiqui.; S. A. Hashmi.; S. F. Adil., Silver-doped manganese based nanocomposites for aerial oxidation of alcohols, Materials Express 2018, 8 (1), 35-54. 18. N. Al-zaqr.; A. Alsalme.; S. F Adil.; A. Alsaleh.; S. G. Alshammari.; S. I. Alresayes.; R. Alotaibi.; M. Al-Kinany.; M. R. H Siddiqui., Comparative catalytic evaluation of nickel and cobalt substituted phosphomolybdic acid catalyst supported on silica for hydrodesulfurization of thiophene. Journal of Saudi Chemical Society 2017, 21 (8), 965-973. 19. M. E Assal.; M. R. Shaik.; M. Kuniyil.; M. Khan.; A. Y. Alzahrani.; A. Al-Warthan.; M. R. H. Siddiqui.; S. F. Adil., Mixed Zinc/Manganese on Highly Reduced Graphene Oxide: A Highly Active Nanocomposite Catalyst for Aerial Oxidation of Benzylic Alcohols. Catalysts 2017, 7 (12), 391. 20. S. S. P. Sultana.; R. Ali.; M. Kuniyil.; M. Khan.; A. Alwarthan.; D.H.V. Kishore.; M. E. Assal.; K. R. S. Prasad., Naushad Ahmad, Mohammed Rafiq H Siddiqui, S. F Adil, Ytterbia doped nickel–manganese mixed oxide catalysts for liquid phase oxidation of benzyl alcohol. Journal of Saudi Chemical Society 2017, 21 (7), 878-886. 21. S. Bashmal.; M. R. H. Siddiqui.; A. Fazal.; M. Arif., Experimental and Numerical Investigations on the Mechanical Characteristics of Carbon Fiber Sensors. Sensors 2017, 17 (9), 2026. 22. S. M. Wabaidur.; S. M. Alam.; Z. A. Alothman.; M. R. H. Siddiqui.; M. A. Khan., Flow Injection Determination of Moxifloxacin using Silver Nanoparticles with Tris (2, 2-Bipyridyl) Ruthenium (III)-Ce (IV) Chemiluminescence Detection. Indian Journal of Pharmaceutical Sciences 2017, 79 (3), 402-410. 23. S. M. Soliman.; H. A. Ghabbour.; S. N. Khattab.; M. R. H. Siddiqui.; A. El-Faham., Synthesis, crystallographic characterization, DFT and TD-DFT studies of Oxyma-sulfonate esters. Journal of Chemical Sciences 2017, 129 (9), 1469-1481. 24. S. F. Adil.; M. E. Assal.; M. Kuniyil.; M. Khan.; M. R. Shaik.; A. Alwarthan.; P. Labis.; M. R.H. Siddiqui\*., Synthesis and Comparative Catalytic Study of Zinc Oxide (ZnOx) Nanoparticles Promoted MnCO3, MnO2 and Mn2O3 for the Selective Oxidation of Benzylic Alcohols using Molecular Oxygen. Materials Express 2017, (Article in Press). 25. M. R. Shaik.; A. H. Al-Marri.; S. F. Adil.; N. Mohri.; B. Barton.; M.R. H. Siddiqui.; A.Al-Warthan.; J. P. Labis.; W. Tremel.; M. Khan.; M. N. Tahir., Benzyl Alcohol Assisted Synthesis and Characterization of Highly Reduced Graphene Oxide (HRG)@ZrO2 Nanocomposites. ChemistrySelect 2017, 1 (1) 1–7. 26. Assal, M.E.; Kuniyil, M.; Khan, M.; Al-Warthan, A.; Siddiqui, M.R.H.; Tremel, W.; Nawaz Tahir, M.; Adil, S.F., Synthesis and Comparative Catalytic Study of Zirconia–MnCO3 or –Mn2O3 for the Oxidation of Benzylic Alcohols. ChemistryOpen 2017, 6 (1), 112-120. 27. A. Sharma.; Y. Jad.; M. R. H. Siddiqui.; B. G. Torre.; F. Albericio.; A. El-Faham., Synthesis, Characterization, and Tautomerism of 1, 3-Dimethyl Pyrimidine-2, 4, 6-Trione s-Triazinyl Hydrazine/Hydrazone Derivatives. Journal of Chemistry 2017, (2017), Article ID 5702962, 1-10. 28. Khan, M.; Kuniyil, M.; Shaik, M.R.; Khan, M.; Adil, S.F.; Al-Warthan, A.; Alkhathlan, H.Z.; Tremel, W.; Tahir, M.N.; Siddiqui, M.R.H., Plant extract mediated eco-friendly synthesis of pd@graphene nanocatalyst: An efficient and reusable catalyst for the Suzuki-Miyaura coupling. Catalysts 2017, 7 (1), Article number 20. 29. Khan, M.; Albalawi, G.H.; Shaik, M.R.; Khan, M.; Adil, S.F.; Kuniyil, M.; Alkhathlan, H.Z.; Al-Warthan, A.; Siddiqui, M.R.H., Miswak mediated green synthesized palladium nanoparticles as effective catalysts for the Suzuki coupling reactions in aqueous media. Journal of Saudi Chemical Society 2017, 21 (4), 450-457. 30. Islam, M.S.; Barakat, A.; Al-Majid, A.M.; Ghabbour, H.A.; Fun, H.-K.; Rafiq Siddiqui, M., Stereoselective synthesis of diazaspiro[5.5]undecane derivatives via base promoted [5+1] double Michael addition of N,N-dimethylbarbituric acid to diaryliedene acetones. Arabian Journal of Chemistry 2017, 10 (1), 1-9. 31. M. R. Shaik.; Ali, Z.J.Q.; Khan, M.; Kuniyil, M.; Assal, M.E.; Alkhathlan, H.Z.; Al-Warthan, A.; Siddiqui, M.R.H.; Khan, M.; Adil, S.F., Green synthesis and characterization of palladium nanoparticles using origanum vulgare L. extract and their catalytic activity. Molecules 2017, 22 (1), Article number 165. 32. Sultana, S.S.P.; Kishore, D.H.V.; Kuniyil, M.; Khan, M.; Siddiqui, M.R.H.; Alwarthan, A.; Prasad, K.R.S.; Ahmad, N.; Adil, S.F., Promoting effects of thoria on the nickel-manganese mixed oxide catalysts for the aerobic oxidation of benzyl alcohol. Arabian Journal of Chemistry (Article in Press). 33. El-Faham, A.; Soliman, S.M.; Ghabbour, H.A.; Elnakady, Y.A.; Mohaya, T.A.; Siddiqui, M.R.H.; Albericio, F., Ultrasonic promoted synthesis of novel s-triazine-Schiff base derivatives; molecular structure, spectroscopic studies and their preliminary anti-proliferative activities. Journal of Molecular Structure 2016, 1125, 121-135. 34. Shaik, M.R.; Albalawi, G.H.; Khan, S.T.; Khan, M.; Adil, S.F.; Kuniyil, M.; Al-Warthan, A.; Siddiqui, M.R.H.; Alkhathlan, H.Z.; Khan, M., "Miswak" based green synthesis of silver nanoparticles: Evaluation and comparison of their microbicidal activities with the chemical synthesis. Molecules 2016, 21 (11), 1478. 35. Barakat, A.; Al-Majid, A.M.; Ali, M.; Ghabbour, H.A.; Al-Marashdah, M.S.; Siddiqui, M.R., Crystal structure of 6-hydroxy-5-((2-hydroxy-6-oxocyclohex-1-en-1-yl)(phenyl)methyl)-1,3-dimethylpyrimidine-2,4 (1H,3H)-dione, C19H20N2O5. Zeitschrift fur Kristallographie - New Crystal Structures 2016, 231 (3), 849-851. 36. Kamal, A.; Faazil, S.; Shaheer Malik, M.; Balakrishna, M.; Bajee, S.; Siddiqui, M.R.H.; Alarifi, A., Convenient synthesis of substituted pyrroles via a cerium (IV) ammonium nitrate (CAN)-catalyzed Paal-Knorr reaction. Arabian Journal of Chemistry 2016, 9 (4), 542-549. 37. El-Faham, A.; Soliman, S.M.; Osman, S.M.; Ghabbour, H.A.; Siddiqui, M.R.H.; Fun, H.-K.; Albericio, F., One pot synthesis, molecular structure and spectroscopic studies (X-ray, IR, NMR, UV-Vis) of novel 2-(4,6-dimethoxy-1,3,5-triazin-2-yl) amino acid ester derivatives. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy 2016, 159, 184-198. 38. Khan, M.; Khan, M.; Al-Marri, A.H.; Al-Warthan, A.; Alkhathlan, H.Z.; Siddiqui, M.R.H.; Nayak, V.L.; Kamal, A.; Adil, S.F., Apoptosis inducing ability of silver decorated highly reduced graphene oxide nanocomposites in A549 lung cancer. International Journal of Nanomedicine 2016, 11, 873-883 39. Alsalme, A.; Alzaqri, N.; Alsaleh, A.; Siddiqui, M.R.H..; Alotaibi, A.; Kozhevnikova, E.F.; Kozhevnikov, I.V., Efficient Ni-Mo hydrodesulfurization catalyst prepared through Keggin polyoxometalate. Applied Catalysis B: Environmental 2016, 182, 102-108 40. Shaik, M.R.; Kuniyil, M.; Khan, M.; Ahmad, N.; Al-Warthan, A.; Siddiqui, M.R.H.; Adil, S.F.; Modified polyacrylic acid-zinc composites: Synthesis, characterization and biological activity. Molecules 2016, 21 (3):292. 41. Alsalme, A.; Toraba, M.A.; Khan, M.; Alzaqri, N.A.; Alshammari, S.G.; Alotaibi, M.A.; Siddiqui, M.R.H., Facile synthesis of nickel based nanostructures from Ni[EMIM]Cl2 ionic liquid precursor: Effects of thermal and chemical methods on the properties of nanoparticles. RSC Advances 2016, 6 (89), 86340-86345 42. Al-Marri, A.H.; Khan, M.; Shaik, M.R.; Mohri, N.; Adil, S.F.; Kuniyil, M.; Alkhathlan, H.Z.; Al-Warthan, A.; Tremel, W.; Tahir, M.N.; Khan, M.; Siddiqui, M.R.H., Green synthesis of Pd@graphene nanocomposite: Catalyst for the selective oxidation of alcohols. Arabian Journal of Chemistry 2016, 9 (6), 835–845. 43. North, J.; Poole, O.; Alotaibi, A.; Bayahia, H.; Kozhevnikova, E.F.; Alsalme, A. Siddiqui, M.R.H. Kozhevnikov, I.V., Efficient hydrodesulfurization catalysts based on Keggin polyoxometalates. Applied Catalysis A: General 2015, 508, 16-24. 44. Barakat, A.; Al-Majid, A.M.; Islam, M.S.; Ali, M.; Soliman, S.M.; Siddiqui, M.R.H.;, Ghabbour, H.A.; Fun, H.-K., Molecular structure investigation and tautomerism aspects of (E)-3-benzylideneindolin-2-one. Journal of Chemical Sciences 2015, 127 (9), 1547-1556. 45. Khan, M.; Tahir, M.N.; Adil, S.F.; Khan, H.U.; Siddiqui, M.R.H.; Al-Warthan, A.A.; Tremel, W., Graphene based metal and metal oxide nanocomposites: synthesis, properties and their applications. Journal of Materials Chemistry A 2015, 3 (37), 18753-18808. 46. El-Faham, A.; Hozzein, W.N.; , Wadaan, M.A.M.; , Khattab, S.N.; Ghabbour, H.A.; Fun, H.-K.; Siddiqui, M.R., Microwave synthesis, characterization, and antimicrobial activity of some novel isatin derivatives. Journal of Chemistry 2015, 2015, Article number 716987. 47. Ali, R.; Nour, K.; Al-Warthan, A.; Siddiqui, M.R.H.; Selective oxidation of benzylic alcohols using copper-manganese mixed oxide nanoparticles as catalyst. Arabian J. Chem 2015, 8 (4), 512–517. |
| 1. Kamal, A.; Faazil, S.; Malik, M. S.; Balakrishna, M.; Bajee, S.; Siddiqui, M. R. H.; Alarifi, A., Convenient synthesis of substituted pyrroles via a cerium (IV) ammonium nitrate (CAN)-catalyzed Paal–Knorr reaction. *Arabian Journal of Chemistry* **2015**, *9* ( 4), 542–549 |
| 1. Adil, S. F.; Alabbad, S.; Kuniyil, M.; Khan, M.; Alwarthan, A.; Mohri, N.; Tremel, W.; Tahir, M. N.; Siddiqui, M. R. H., Vanadia supported on nickel manganese oxide nanocatalysts for the catalytic oxidation of aromatic alcohols. *Nanoscale research letters* **2015,** *10* (1), 1-9. |
| 1. Adil, S. F.; Assal, M. E.; Khan, M.; Al-Warthan, A. A.; Siddiqui, M. R. H.; Liz-Marzán, L. M., Biogenic synthesis of metallic nanoparticles and prospects toward greenchemistry. *Dalton Transactions* **2015**, *44*, 9709-9719. |
| 1. Al-Marri, A. H.; Khan, M.; Khan, M.; Adil, S. F.; Al-Warthan, A.; Alkhathlan, H.Z.; Tremel, W.; Labis, J. P.; Siddiqui, M. R. H.; Tahir, M. N., Pulicaria glutinosa Extract: A Toolbox to Synthesize Highly Reduced Graphene Oxide-Silver Nanocomposites. *International journal of molecular sciences* **2015,** *16* (1), 1131-1142. |
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| 1. Khan, M.; Khan, S. T.; Khan, M.; Adil, S. F.; Musarrat, J.; Al-Khedhairy, A. A.;Al-Warthan, A.; Siddiqui, M. R. H.; Alkhathlan, H. Z., Antibacterial properties of silvernanoparticles synthesized using Pulicaria glutinosa plant extract as a green bioreductant.*International journal of nanomedicine* **2014,** *9*, 3551. |
| 1. Khan, M.; Khan, M.; Kuniyil, M.; Adil, S. F.; Al-Warthan, A.; Alkhathlan, H. Z.;Tremel, W.; Tahir, M. N.; Siddiqui, M. R. H., Biogenic synthesis of palladiumnanoparticles using Pulicaria glutinosa extract and their catalytic activity towards theSuzuki coupling reaction. *Dalton Transactions* **2014,** *43* (24), 9026-9031. |
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