Scientific publications/Peer-reviewed publications

1. Choudary, B.M.; Lakshmi Kantam, M.; **Neeraja, V**.; Tapasree, B.; and Narsi Reddy, P. "Vanadyl(IV) acetate : A New Reusable Catalyst for Acylation of Alcohols and Steroid," *J. Mol. Catal. A: Chemical., 140***, 1999,** 25-29. https://doi.org/10.1016/S1381-1169(98)00214-3.

2. Lakshmi Kantam, M.; **Neeraja, V**.; Bharathi, B.; Venkat Reddy**,** Ch. **"**Transesterification of β-Keto esters Catalysed by Transition Metal Complexes in a Heterogeneous way," *Catal. Lett*., *62* ,**1999**, 67-69. https://doi.org/10.1023/A:1019074300785

3. Choudary, B. M.; **Neeraja, V**.; Lakshmi Kantam**,** M. **"**Vanadyl(IV) acetate: a Mild and Efficient Heterogeneous Catalyst for the Tetrahydropyranylation of Alcohols, Phenols and Thiols," *J. Mol. Catal. A: Chemical*., *175*, **2001**,169-172. **https://doi.org/10.1016/S1381-1169(01)00202-3 (Scopus Indexed)**

4. Lakshmi Kantam, M.; **Neeraja, V**.; Sreekanth, P. "Vanadyl (IV) acetate: A Mild and Efficient Catalyst for the Deprotection of Acetals and Ketals," *Catal Commun*., *2*, **2001**, 301-304. **https://doi.org/10.1016/S1566-7367(01)00050-4 (Scopus Indexed)**

5. Choudary, B. M.; Lakshmi Kantam, M.; **Neeraja, V**.; Koteswara Rao, K.; Figueras, F.; Delmotte, L. "Layered Double Hydroxide Fluoride: A Novel Solid Base Catalyst for C-C bond Formation," *Green Chem.*, **2001,** 257-260. https://doi.org/10.1039/B107124F **(Scopus Indexed)**

6. Giribabu, L.; Ashok Kumar, A.; **Neeraja V**.; Bhaskar G. M **"**Orientation Dependence of Energy Transfer in an Anthracene-Porphyrin Donor-Acceptor System," *Angew. Chem. Int. Ed., 40,* **200**1, 3621. **https://doi.org/10.1002/1521-3773(20011001)40:19<3621::AID-ANIE3621>3.0.CO;2-D (Scopus Indexed)**

7. Lakshmi Kantam, M.; Kavita, B.; **Neeraja, V**.; Haritha, Y.; Chaudhuri, M. K.; Dehury, S. S. "Microencapsulated $Cu(acac)_2$: A Recoverable and Reusable Polymer- Supported Copper Catalyst for Aziridination of Olefins," *Tetrahedron Lett., 44*, **2003**, 9029-9032. https://doi.org/10.1016/j.tetlet.2003.09.213 **(Scopus Indexed)**

8. Lakshmi Kantam, M.; **Neeraja, V**.; Kavita, B.; Haritha, Y. "$Cu(acac)_2$ immobilised in ionic liquids: a novel and recyclable catalytic system for aziridination of olefins using PhI=NTs as nitrene source," *Synlett*, **2004**, 525-527. DOI: 10.1055/s-2004-815420 **(Scopus Indexed)**

9. Lakshmi Kantam, M.; Kavita, B.; **Neeraja, V**.; Haritha, Y.; Chaudhuri, M. K.; Dehury, S. S. "Heterogeneous Catalytic Sulfimidation using Immobilised $Cu(acac)_2$,"*Adv. Synth & Catal*., *347*, **2005**, 641-645. https://doi.org/10.1002/adsc.200404291 **(Scopus Indexed)**

10. Lakshmi Kantam, M.; **Neeraja, V**.; Kavita, B.; Chaudhuri, M. K.; Sahid Hussain, "$Cu(acac)_2$ Immobilized in Ionic liquids: A Recoverable and Reusable Catalytic System for Aza-Michael," *Adv. Synth & Catal***.,** *347*, **2005**, 763-766. https://doi.org/10.1002/adsc.200404361 **(Scopus Indexed)**

11. Lakshmi Kantam, M.; Neelima, B.; Venkat Reddy, Ch.; **Neeraja, V**. **"***N*-Arylation of Imidazoles, Imides, Amines, Amides and Sulfonamides with Boronic Acids using a Recyclable $Cu(OAc)_2$/[bmim][BF_4] System*," J. Mol. Catal. A: Chemical*., *249*, **2006**,

201-206. https://doi.org/10.1016/j.molcata.2006.01.012

12. **Neeraja, V**.; Chivin, S.; Francoise, S.; Wei, S.; William, L.; Krishnaswami, R.; and Peetz, R. M., "Biotin-functional oligo(*p*-phenylene vinylene)s synthesized using click chemistry," *Tetrehedron Le*tt., *49*, **2008**, 6386-6389. https://doi.org/10.1016/j.tetlet.2008.08.080 **(Scopus Indexed)**

13. **Neeraja Vundyala**, Chivin Sun, Francoise Sidime, Wei Shi, William L'Amoreaux, Krishnaswami Raja, and Ralf M. Peetz. "Imaging Quantum Dots (Qdots) Oligomer Networks with Confocal Fluorescence Laser Scanning and Transmission Electron Microscopy (CFLSM and TEM)" *Microscopy and Microanalysis*, August 3-7, **2008**, 710-711. https://doi.org/10.1017/S1431927608087199 **(Scopus Indexed)**

14. Chivin Sun, **Neeraja Vundyala**, Carliann Costanzo, Sutapa Ghosh, and Ralf M. Peetz. "Synthesis and characterization of homologous end functional oligo(p-phenylene vinylene) oligomers." *PMSE Preprints*, 100, **2009**, 716-717.

15. N. Kundana, M. Venkatapathy, **V. Neeraja,** Chandra SekharEspenti and V. Madhusudhana Reddy "Preparation And Characterization Of Solid Polymer Electrolyte Membranes Based On Pvdf-Co-Hfp Polymer And Mgtf3 As A Dopant*". Rasayan Journal of Chemistry*, Vol. 15, No. 4 , **2022**, 2359-2365. http://doi.org/10.31788/RJC.2022.1548015 **(Scopus Indexed)**

16. N. Kundana,M. Venkatapathy, **V. Neeraja,** ChandraSekhar Espenti,V. MadhusudhanaReddy And Venkatramana Jeedi "Effect of PMMA on PVDF-co-HFP/MgTf3 Polymer Composite with Improved Ionic Conductivity, Thermal and Structural Properties". *Oriental Journal of Chemistry*, Vol. 38, No.5, **2022**, 1138-1147. http://dx.doi.org/10.13005/ojc/380508 **(WOS indexed)**

17. N. Kundana, M. Venkatapathy, **V. Neeraja,** Chandra SekharEspenti , V. Madhusudhana Reddy "Development of ion conducting polymer electrolyte membranes based on polymer blend PMMA/PVDF-co-HFP and the Mg-salt with improved electrical, thermal and structural properties." *NeuroQuantology*, Vol. 20, Issue 6, **2022**, 5890-5897. DOI:10.14704/nq.2022.20.6. NQ22594 **(Scopus Indexed)**

18. N. Kundana,M. Venkatapathy, **V. Neeraja,** Chandra Sekhar Espenti, Venkatramana Jeedi and V. Madhusudhana Reddy "Effect of Zr-Nanofiller On Structural And Thermal Properties Of PVDF-Co-HFP Porous Polymer Electrolyte Membranes Doped With Mg $^{2+}$Ions". *Asian Journal of Chemistry*, Vol. 35, **2023**, 99-108. https://doi.org/10.14233/ajchem.2023.26893 **(Scopus Indexed)**

19. Kundana, N., Reddy, V. Madhusudhana Reddy., Venkatapathy, M., **Neeraja, V**., Jeedi, V. R., & Ganta, K. K.. "Impact of Zirconium Oxide Nanopowder on Dielectric Response and Morphological Studies of Magnesium-Based PVDF-HFP/PMMA Nanocomposite Polymer Electrolyte Systems". *BioNanoScience*, **2024**, 1-13. https://doi.org/10.1007/s12668-024-01381-5 **(Scopus Indexed- Springer Nature)**

Patents Published

1. Choudary, B. M.; Figueras, F.; **Neeraja, V**.; Lakshmi Kantam, M.; Koteswara Rao, K. "Novel Solid Base Layered Double Hydroxide Fluoride Catalysts,"French Patent, Patent No. n^0 00 02987, **2000**.

2. Figueras, F.; Choudary, B. M.; **Neeraja, V**.; Lakshmi Kantam, M.; Koteswara Rao, K.

"Use of a solid hydrotalcite structure incorporating fluorides for basic catalysis of Michael or Knoevenagel reactions,"US Patent, Patent No. 7060859, **2006**.

3. V. Madusudhana Reddy, N. Kundana, **V. Neeraja.** Corona Virus detection system Using Sensors, Indian patent, Patent No. 202141016976 A, **2021**

4. V. Madusudhana Reddy, K. Ramakrishna, **V. Neeraja.** Nano-Coated Sensors for Rapid Detection of Chemical and Biological Contaminants, Indian patent, Patent No.202441088612 A, **2024.**

5. V. Madusudhana Reddy, K. Ramakrishna, V. **Neeraja.** Photocatalytic Nanomaterial for Water Purification and Organic Pollutant Degradation, Indian patent, Patent No.202441088613 A, **2024.**

Books Published

1. Dr. V. Neeraja, Dr N. Kundana & Dr P. Gangadhar (2025), Engineering Chemistry, Pen Press International, Bangalore, India, ISBN: 978-81-991932-4-6.

Awards/Fellowships/Schholarships

1. Ratified by JNTUH as Associate Professor in Chemistry on 15th Dec 2025
2. Received fellowship for Postdoctoral Research Associate at City University of New York, Department of Chemistry, Staten Island, New York, USA
3. Research Associate awarded from CSIR, New Delhi, India in 2004
4. Senior Research Fellow (Extended) awarded from CSIR, New Delhi, India in 2002.
5. Recipient of "V. Bheemaiah Memorial Gold Medal" for securing first rank in M.Sc. Chemistry (1995).
6. Recipient of "Dr. Sadashiv Devidas Thatte Memorial Gold Medal" for securing highest marks in M.Sc. Chemistry-Previous.
7. Recipient of "Dr (Mrs) Sabitha M.L.N. Reddy Gold Medal" securing highest marks in M.Sc. Final with Inorganic Chemistry (1995).

Scientific presentations

1. **Neeraja, V**.; Chivin, S.; Francoise, S.; Wei, S.; William, L.; Krishnaswami, R.; and Peetz, R. M., "Design and Synthesis of Novel Oligo(p-phenylene vinylene) based Biomolecules", International Conference on trend Setting Innovations & Technology TSCST-API2015, JNTUH Centre for Chemicals Sciences & Technology, Hyderabad, 16th-18th Dec, **2015**.

2. N. Kundana, M.Venkatapathy, **V. Neeraja,** C. S. Espenti, V. Madhusudhana Reddy, & A. Mallikarjun, "Preparation and Characterization of Zr-Nanofiller-Based PEO/PVDF-HFP-Mg Polymer Electrolyte Membranes for Battery Application", International Conference on Intelligent Manufacturing and Energy Sustainability, Smart Innovation Systems and Technologies 334, Mallareddy College of Engineering and Technology, Hyderabad, June, **2022**, 306-316.

3. N. Kundana, V Madhusudhana Reddy, M Venkatapathy, **V Neeraja,** "Functionality of zirconium nanofiller on structural and ionic properties of PVDF -co-HFP blended with PMMA nanocomposite polymer electrolytes", International Conference on Fluid Flows and Energy Storage Materials, AIP Conf. Proc. 3160,220001, Mallareddy College of Engineering and Technology, Hyderabad, June, **2024**, 220001-1 to 220001-9.

4. Ch. Sirisha Rani , **V. Neeraja**, "A critical review on reliability and ecological aspects of

photovoltaic cells with its future trends", International conference on Nanomaterials & Technologies (CNT-2024), Vidya Jyothi Institute of Technology, Hyderabad, 2nd -3rd Feb 2024.

Seminar/Workshops

1. Two week ISTE workshop on Engineering Thermodynamics, IIT Bombay, 11th to 21st Dec-2012
2. International Conference on trend Setting Innovations & Technology TSCST-API2015, JNTUH Centre for Chemicals Sciences & Technology, 16th-18th Dec, 2015
3. Faculty Development Programme on Effective Teaching Methodologies, Mallareddy College of Engineering and Technology, June 22nd –July 6th, 2016
4. International Conference on Transformations in Engineering Education (ICTIEE 2017), Vardhaman College of Engineering, Hyderabad, Jan 6-8, 2017
5. One Week Faculty development program on Latex & Technical Report writing, Kakatiya University, Warangal, May 25th 2020
6. ICT based teaching in chemistry, Kasturba Gandhi, PG College for Women, Hyderabad,18th May 2020
7. Art of writing papers and Research Methodologies, Gokaraju Rangaraju Institute of Engineering & Technology, Hyderabad
8. Advanced Functional Materials, Nizam College, OU, 18th August 2020
9. Innovative Techniques for Effective Teaching Online and Offline, MGIT, Hyderabad, 12th June 2020
10. Nano-Structured Thin flims for Multifunctional Applications, St. Frances College for Women, Hyderabad, 11th June 2020

Online Certificate Courses

1. Nanotechnology: A Maker's Course, Duke University, Coursera, 8 weeks, 4th May 2020
2. Organic Solar Cells: Theory and Practice, Technical University of Denmark, Coursera, 6 weeks, 8th May 2020
3. Introduction to Molecular Spectroscopy, University of Manchester, Coursera, 5 weeks, 11th May 2020
4. Excel Skills for Business : Essentials, Macquarie University, Sydney, Coursera, 8 weeks, 17th May 2020
5. Nanotechnology and nanosensors, Israel Institute of Technology, Coursera,4 weeks, 11th May 2020