

Curriculum vitae

Dr. Neeraj Gupta (Ph.D. and Post Doc.)

Personal Details

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Citizenship: India

Professional Qualifications

M.Sc. Chemistry from Himachal Pradesh University in the year 1998
Ph. D. Chemistry from Panjab University Chandigarh India in the year 2008.
Postdoc from University of Kentucky (United States of America) in the year 2012.
Postdoc from Institute of Metal Research, Shenyang National Laboratory (China) in the year 2016.

Employment History

PROFESSIONAL EXPERIENCE		
Position	Institute/ Industry	Period
1. Assistant Professor	Central University of Himachal Pradesh, Kangra (HP) India (Central Government Organization)	Jan 2020- till date
2. Associate Professor and Head	Shoolini University, Bajhol, Solan (HP) India (Private Organization)	Oct 2017- Jan 2020
3. Assistant Professor	Shoolini University, Bajhol, Solan (HP) India	Dec 2016 - Oct 2017
4. CAS Postdoctoral Fellow	Chinese Academy of Sciences, Shenyang National Laboratory (SYNL), China	May 2014-Nov 2016
5. Assistant Professor	Shoolini University, Bajhol, Solan (HP) India	Nov 2012-May 2014
6. Fulbright Postdoctoral Research Scholar	Chemistry Department, University of Kentucky, Lexington, (KY)- USA	Sept 2011-Aug 2012
7. Research Scientist	Jubilant LifeSciences R&D center, Noida-U.P.(India) [USFDA Approved]	Aug 2009- July 2011
8. Research Officer	IndSwift Labs Ltd. R&D Center, Mohali- Punjab (India) [USFDA Approved]	Oct 2007- July 2009

Personal Distinctions

1. **Prestigious Fulbright Nehru Postdoctoral Research Fellowship (2011-12) Award by United States.**
<http://www.usief.org.in/Current-Fellows/2011-2012%20Fellows/Doctoral%20and%20Professional/Dr.Neeraj-Gupta.html>
2. **Prestigious Postdoctoral Award by Chinese Academy of Sciences (May 2014- Nov 2016) China.**
3. **Fellowship by C. S. I. R** (Council of Scientific and Industrial Research)-**New Delhi** during the research period and qualified National Eligibility Test (**N.E.T**) in Chemistry twice in June and December 2001 respectively. [C.S.I.R (N.E.T)is the national level exam conducted all over the country for admissions into graduate programs]
4. Qualified State Level Eligibility Test (**S. L. E. T**) - Himachal Pradesh (India) in Dec 2001.
5. I was also offered postdoc in Pennsylvania State University, New Kensington (USA) in the year 2012, but I

could not continue due to J1 visa regulations.

6. I was awarded young Scientist Award by Department of Science and Technology in 2014, but it could not be availed due to simultaneous award by Chinese Academy of Sciences.

Invited Seminars and Invited Conference Presentations

1. **Invited lecture** in Maharaja Agrasen University on “Fundamentals of Stereochemistry” on 21st February 2022.
2. **Invited Talk** in Ram Chand Paul Symposium in Panjab University Chandigarh (India), “Tuning Nanocarbon Support for Designing new metal based and metal free catalysts for organic synthesis and biomass conversion” **27th Feb 2020**.
3. **Oral presentation** on “Nanodiamonds as metal free catalyst for the synthesis of triazole” in Contemporary Facets of Organic Synthesis (CFOS) organized by **IIT Rorkee (India) on 24th December 2016**.
4. **Delivered a talk in Poznan university of Technology, Poznan (Poland) on 21st October, 2015** in the conference “Carbon for Energy Storage/conversion and Environment Protection–CESEP 2015” from October 18-22, 2015.
5. Attended “Third Symposium of Carbon Catalysis” in “**IMR, Shenyang National laboratory, Shenyang (China)**” from 7-8th May **2015**.
6. Attended 5th Trilateral (Singapore, India and China) Conference on Advances in Nanoscience: Energy, Water & Healthcare in “**IMR, Shenyang National laboratory, Shenyang (China)**”, 25th–28th September **2014**.
7. I was invited by USIEF New Delhi (India) as a resource person on 8th April, **2013** for guiding the future aspirants.
8. **Delivered a talk in University of Kentucky-Lexington (USA) on 31st August 2012**. Title of the talk was: Developing green technology for the synthesis of value added chemicals and biological active compounds.
9. Attended 16th American Chemical Society's (ACS) Green Chemistry Conference in **Washington DC (USA)** in 18th-20th June **2012**.
10. Attended “Frontiers in Nanochemistry” in **Beijing University (China)** from June 5-8, **2015**.

Professional Contributions

- Life Member of Fulbright Alumni Association, Department of States, United States of America.
- Life Member of Him Science Congress Association (HP) India

Teaching

CCS 520 (Reaction Mechanism in Inorganic Chemistry and Photochemistry)

CCS 507 (Organic Chemistry Specialisation)

CCS 564 (Asymmetric Synthesis and Organocatalysis)

CCS 703 (Indian Knowledge System)

CCS 705 (Research Methodology)

Doctoral Thesis Supervision

- **Pushpa Bhardwaj (12CHD05)**, has successfully defended her thesis and has been awarded degree in the year 2017 (Title of Thesis: Studies towards the Synthesis of Indole and Imidazole Derivatives using Environmental Benign Methodologies).
- **Kshipra Sen (1734701006)**, has successfully defended her thesis and has been awarded degree in the year 2021 (Title of thesis: Functionalized biomaterials for environmental and biological applications). Jointly supervised with Dr. Kalpana Chauhan, Central University of Haryana.
- **Deepika Sharma (1734701002)**, has successfully defended her thesis and has been awarded degree in the year 2021 (Title of thesis: Carbon based catalysts for the activation of un-reactive carbon-hydrogen bond and biomass

conversion).

- **Ashima Dogra (1734701008)**, has successfully defended her thesis and has been awarded degree in the year 2021 (Title of thesis: Metal free carbon based catalysts for hydrogen activation and biomass valorization).
- **Tokuma Getahun (1834701013)**, has successfully defended his thesis and has been awarded degree in the year 2021 (Title of thesis: Chemical compounds and essential oils from *Lepidium sativum*, *Aloe debrana* and *Laggeratomentosa* and their antioxidant as well as antibacterial activities).
- **Shalini Arora (16301001)**, has defended her thesis on 3rd Sepetmeber 2021 and has been awarded degree (Title of thesis: New catalytic methodologies for isolation of lignocellulosic components from agricultural waste biomass and their valorization). Jointly supervised with Prof. Vasundhara Singh, PEC University of Technology Chandigarh.
- **Currently supervising four Ph.D students.**

University Administration

- Head, School of Chemistry, Shoolini University, Solan (HP) from October 2017 – January 2020.

Research Projects

1. Development of Efficient Non-toxic Catalysts for Glucose Conversion to 5-Hydroxymethyl furfural (5-HMF) and related molecules in ionic liquid (by USIEF-New Delhi and Fulbright Commission USA, year 2011).
2. Development of environmental benign technologies for the conversion of cellulose into value added chemicals (By DST-New Delhi, Year 2013).
3. I was awarded postdoctoral fellowship by Chinese Academy of Sciences for my project on “Developing the carbon based catalyst for catalytic conversion of lignocellulosic biomass.” (June 2014-Dec 2016)
4. Deriving methyl furans from Himalayan Biomass as sustainable alternative to petroleum products, Project awarded for the year (2019-20) by HIMCOSTE, Himachal Pradesh, India.
5. Design and application of new green adsorbent cum sensor for water application from industrial area of HP, by HIMCOSTE.

Publications

Refereed Journal Articles (Ten best given in beginning)

1. Engineering of all solution/substrate processable biosensors for the detection of epinephrine as low as pM with rapid readout, Jagadeesh Suriyaprakash, **Neeraj Gupta**, **Lijun Wu**, Lianwei Shan, **Chemical Engineering Journal**, **2022**, **436**, 135254. (ISSN: 1385-8947, Impact Factor 13.3). **This article is selected for cover feature article by Chemical Engineering Journal.**
2. Molecularly engineered carbon based sensor for the ultrafast and specific detection of neurotransmitters, Jagadeesh Suriyaprakash, Kanchan Bala, Lianwei Shan, Lijun Wu and **Neeraj Gupta***, **ACS Appl. Mater. Interfaces**, **2021**, 13 (51), 60878-60893. (ISSN: 1944-8244, Impact Factor 9.3).
3. Carbon based catalysts for the hydrodeoxygenation of lignin and related molecules: A powerful tool for the generation of non-petroleum chemical products including hydrocarbons, Vinit Sharma, Tokuma Getahun, Minal Verma, Alberto Villa, **Neeraj Gupta***, **Sustainable and Renewable Energy Reviews (Elsevier)**, **2020**, 133, 110280. (ISSN: 13640321; Impact Factor 15.0).
4. Improved Pd/Ru metal supported graphene oxide nano-catalyst for hydrodeoxygenation of vanillyl alcohol, vanillin and lignin, Shalini Arora, **Neeraj Gupta**, Vasundhara Singh, **Green Chemistry (RSC)**, **2020**, 22, 2018-2027 (ISSN: 1463-9262; Impact Factor 10.1).
5. Versatile carbon supported mono and bimetallic nanocomposites: synthesis, characterization and their potential application for furfural reduction, Deepika Sharma, Jagadeesh Suriyaprakash, Ashima Dogra, Shahram Alijani, Alberto Villa, **Neeraj Gupta***, **Mater. Today Chem. (Elsevier)**, **2020**, 17, 100319 (ISSN 2468-5194 and impact factor 8.3)
6. Recent developments in heterogeneous catalytic routes for the sustainable production of succinic acid from biomass resources, Minal Verma, Parteek Mandyal, Dilbag Singh and **Neeraj Gupta***, **ChemSusChem (Wiley)**, **2020**, 13, 4026-4034. (ISSN:1864-564X; Impact Factor 8.9).
7. Metal free alkene hydrogenation by B-doped graphitic carbon nitride, Ashima Dogra, Ilaria Barlocco,

Amritpal Singh, Ferenc Somodi, Alberto Villa and **Neeraj Gupta***, *Catal. Sci. Tech(RSC)* **2020**, 10, 3024-3028 (ISSN 2044-4761, Impact Factor 6.1).

8. Carbocatalysing the preparation of N-rich heterocyclic compounds, **Neeraj Gupta**, Oleksiy Khavryuchenko, Guodong Wen, Kuang-Hsu Wu, Fuwei Li, Dangsheng Su, *Carbon(Elsevier)*, **2018**, 130, 714-723 (ISSN: 0008-6223; Impact Factor 9.5).
9. Metal-Free Oxidation of Glycerol over Nitrogen-Containing Carbon Nanotubes. **Neeraj Gupta**, Oleksiy Khavryuchenko, Alberto Villa, Dangsheng Su, *ChemSusChem (Wiley)*, **2017**, 10, 3030-3034. (ISSN:1864-564X; Impact Factor 8.9).
10. Palladium and carbon synergistically catalyzed room-temperature hydro-deoxygenation of vanillyl alcohol-A typical lignin model molecule. Wang Qi, **Neeraj Gupta**, Guodong Wen, Sharifah Bee Abd Hamid, Dangsheng Su, *J. Energ. Chem (Elsevier)*, **2017**, 26 (1) 8-16. (ISSN 2095-4956 and Impact Factor 9.6).
11. Graphitic Sulphur Functionalized Carbon Sheets as an Efficient "Turn-Off" Absorption Probe for the Optical Sensing of Mercury Ions in Aqueous Solutions, Vishal Bharti Jaryal, Dilbag Singh, **Neeraj Gupta***, *New J. Chem. (RSC)*, **2022**, 46, 5712–5718 (ISSN 1144-0546 and Impact Factor 3.5).
12. Increasing the efficiency of reduced graphene oxide obtained via high temperature electrospun calcination process for the electrochemical detection of dopamine, **Neeraj Gupta**, Anit Kaur, Gun, Vinit Sharma, Rupak Nagraik, Mamta Shandilya, *J. Electroanal. Chem.*, **2022**, 904, 115904 (ISSN 1572-6657 and Impact Factor 4.4).
13. Brønsted Acid Functionalized Carbon Catalyst for Synthesis of Biologically Active Coumarin-substituted Bis(indolyl)methanes, Vikrant Singh, Ashima Dogra, Joydeep Das, Prasenjit Manna, **Neeraj Gupta***, *FlatChem (Elsevier)*, **2021**, 29, 100279 (ISSN: 2452-2627, Impact Factor 5.2).
14. Development of metal free melamine modified graphene oxide for electrochemical sensing of epinephrine, Kshipra Sen, Sajjad Ali, Dilbag Singh, Kulvinder Singh, **Neeraj Gupta***, *FlatChem (Elsevier)*, **2021**, 30, 100288 (ISSN: 2452-2627, Impact Factor 5.2).
15. pH controlled efficient conversion of extracted hemicellulose from agricultural waste to furfural using choline based BADES and NADES as homogenous acid catalysts, Shalini Arora, **Neeraj Gupta**, Vasundhara Singh, *ChemSusChem (Wiley)*, **2021**, 14 (18) 3953-3958 (ISSN:1864-564X; Impact Factor 8.9).
16. Pd-Au supported reduced graphene oxide catalyst for carbon hydrogen bond activation in benzene, Deepika Sharma, Kamal Kishore, **Neeraj Gupta***, *ChemistrySelect (Wiley)*, **2021**, 6, 7111-7117, (ISSN 2365-6549 and Impact Factor 2.1)
17. Metal free g-C₃N₄/graphite composite based carbocatalyst for epoxidation of styrene, Ashima Dogra, Anil Kumar, Mohit Kapoor, **Neeraj Gupta***, *ChemistrySelect (Wiley)*, **2021**, 6, 7118-7122, (ISSN 2365-6549 and Impact Factor 2.1)
18. Chemical composition, antibacterial and antioxidant activities of essential oils from *Laggera tomentosa* Sch. Bip. ex Oliv. et Hiern (Asteraceae), Tokuma Getahun, Vinit Sharma, Deepak Kumar, **Neeraj Gupta***, *Turkish Journal of Chemistry*, **2020**, 44 (6), 1539-1548. (ISSN: 13036130, Impact Factor 1.1).
19. Growth mechanism of rGO/CDs by electrospun calcination process: structure and Application, Vinit Sharma, Gun Anit Kaur, **Neeraj Gupta***, Mamta Shandilya, *Flat Chem (Elsevier)*, **2020**, 24, 100195. (ISSN: 2452-2627, Impact Factor 5.2).
20. Synthesis of biphenyl through the C-H bond activation in benzene over a Pd catalyst supported on graphene oxide, Deepika Sharma, Lyubov G. Bulusheva, Dmitri A. Bulushev and **Neeraj Gupta***, *New J. Chem. (RSC)*, **2020**, 44, 12178-12184 (ISSN 1144-0546 and Impact Factor 3.5).
21. Chemical composition, antibacterial and antioxidant activities of oils obtained by different extraction methods from *Lepidium sativum* L. seeds, Tokuma Getahun, Vinit Sharma, **Neeraj Gupta***, *Industrial Crops and Products (Elsevier)*, **2020**, 156, 112876. (ISSN 0926-6690 and impact factor 5.6)
22. Chemical composition and biological activity of essential oils from *Aloe debrana* roots, Tokuma Getahun, Vinit Sharma, **Neeraj Gupta***, *Journal of Essential Oil Bearing Plants (Taylor and Francis)*, **2020**, 23, 493-502 (ISSN 0972060X and Impact Factor 0.82).
23. DL-Valine assisted fabrication of quercetin loaded CuO nanoleaves through microwave irradiation method: Augmentation in its catalytic and antimicrobial efficiencies, Kumari Mansi, Raj Kumar, Jaspreet Kaur, S.K. Mehta, Satish Kumar Pandey, Deepak Kumar, Ashutosh K. Dash, **Neeraj Gupta***, *Environ. Nanotech. Monitoring & Management (Elsevier)*, **2020**, 14, 100306. (ISSN 2215-1532 and Cite Score 6.1)

24. Choline based basic ionic liquid (BIL)/ acidic DES mediated cellulose rich fractionation of agricultural waste biomass and valorization to 5-HMF, Shalini Arora, **Neeraj Gupta***, Vasundhara Singh, *Waste Biomass Valori. (Springer)*, 2020, 11, 3345-3354. (ISSN 1877-2641 and Impact Factor 3.7)
25. Derivatized Carbon Nanotubes for Gene Therapy in Mammalian and Plant Cells, Adhish Singh, Dr. Ming Hua Hsu, **Dr. Neeraj Gupta**, Dr. Partha Khanra, Dr. Pankaj Kumar, Dr. Ved Prakash Verma, Dr. Mohit Kapoor, *ChemPlusChem(Wiley)*, 2020, 85, 466-475 (ISSN 2192-6506 and Impact Factor 3.0)
26. Carbon nanotube based materials for electrochemical sensing of neurotransmitter dopamine, Kanchan Bala, Deepika Sharma, **Neeraj Gupta***, *ChemElectroChem (Wiley)*, 2019, 6, 274-288 (ISSN: 2196-0216; Impact Factor 4.5). **This article is selected for cover feature by ChemElectroChem-The prestigious "Wiley" Journal.**
27. Aluminum-Based Catalysts for Cycloaddition Reactions: Moving One Step Ahead in Sustainability, Ashima Dogra, **Neeraj Gupta***, *ChemistrySelect (Wiley)*, 2019, 10452– 10465. (ISSN 2365-6549 and Impact Factor 2.1)
28. The genus Laggera (Asteraceae) – Ethnobotanical and Ethnopharmacological Information, Chemical Composition of its Essential Oils and their Biological Activities: A Review, Tokuma Getahun, Vinit Sharma, **Neeraj Gupta***, *Chem. Biodiv. (Wiley)*, 2019, 16 (8), e1900131. (ISSN 16121872 and Impact Factor 2.4)
29. Hydrogen Production from Formic Acid over Au Catalysts Supported on Carbon: Comparison with Au Catalysts Supported on SiO₂ and Al₂O₃, Lyubov G. Bulusheva Dmitri A. Bulushev, Vladimir I. Sobolev, Larisa V. Pirutko, Anna V. Starostina, Igor P. Asanov, Evgenii Modin, Andrey L. Chuvilin, **Neeraj Gupta**, Alexander V. Okotrub, *Catalysts (MDPI)*, 2019, 9(4), 376 (ISSN 20734344 Impact Factor 3.4)
30. Valorisation of Biomass Derived Furfural and Levulinic Acid by Highly Efficient Pd@ND Catalyst, **Neeraj Gupta**, Nikolaos Dimitratos, Dangsheng Su, Alberto Villa, *Energ. Tech.(Wiley)*, 2019, 7 (2), 269-276. (ISSN 4288-2194 and Impact Factor 3.1)
31. Copper and cobalt nanoparticles embedded in naturally derived graphite electrodes for the sensing of the neurotransmitter epinephrine, Kanchan Bala, Jagadeesh Suriyaprakash, Prem Singh, Kalpana Chauhan, Alberto Villa and **Neeraj Gupta***, *New J. Chem. (RSC)*, 2018, 42, 6604-6608. (ISSN 1144-0546 and Impact Factor 3.5).
32. Ionic liquid N-ethylpyridinium hydrogen sulfate as an efficient catalyst for designing indole scaffolds and their antimicrobial behavior. **Neeraj Gupta**, Pushpa Bhardwaj, Gaurav Sharma, *Iran J Cat.*, 2017, 7, 243-248. (ISSN 2252-0236 and Impact Factor 1.4).
33. Carbon Catalyst Derived from Himalayan Pine for the C-N Coupling of Organic Molecules leading to Pyrrole Formation, **Neeraj Gupta***, Pushpa Bhardwaj, Amit Kumar, *Iran J Cat (IAU-Iran)*, 2017, 7(2), 171-179. (ISSN 2252-0236 and Impact Factor 1.4).
34. Palladium supported on nanodiamonds as an efficient catalyst for the hydrogenating deamination of benzonitrile and related compounds, **Neeraj Gupta**, Yuxiao Ding, Zhenbao Feng, Dangsheng Su, *ChemCatChem (Wiley)*, 2016, 8 (5), 922-928. (ISSN: 1867-3880; Impact Factor 5.6).
35. 1,2,4,5-Tetrazines as Platform Molecules for Energetic Materials and Pharmaceuticals, Pushpa Bhardwaj, **Neeraj Gupta***, *Iran J Org Chem (IAU-Iran)*, 2016, 8 (3), 1827-1831. (ISSN: 2008-3599 and Scopus Indexed).
36. Synthesis of indole and its derivatives in water, **Neeraj Gupta***, Deepti Goyal, *Chem. Het. Comp. (Springer)*, 2015, 51, 4-16. (ISSN: 0009-3122 and Impact Factor 1.3).
37. Heterogenization of homogenous reaction system on carbon surface with ionic liquid as mediator, Yuxiao Ding, Bingsen Zhang, **Neeraj Gupta** and Dang Sheng Su, *Green Chem. (RSC)*, 2015, 17 (2), 1107 – 1112. (ISSN: 1463-9262; Impact Factor 10.1).
38. Oxidative transformation of alcohols and organic halides in aqueous solution, **Neeraj Gupta***, Apoorva Thakur and Pushpa Bhardwaj. *New J. Chem. (RSC)*, 2014, 38, 3749-3754. (ISSN 1144-0546; Impact Factor 3.5).
39. First Synthesis of 15-methyltriosa-2,4-diyne-1,6-diol (Strongylodiol-G). **Neeraj Gupta**, Shallu, Goverdhan Lal Kad & Jasvinder Singh, *Nat. Prod. Res. (Taylor & Francis)*, 2014, 28, 424-430. (ISSN: 1478-6419 and Impact Factor 2.1).
40. Microwave-assisted synthesis of N-isobutyl-4,5-epoxy-2(E)-decanamide. **Neeraj Gupta**, Manvinder Kaur, Shallu, Neeru Gupta, Goverdhan Lal Kad & Jasvinder Singh. *Nat. Prod. Res.(Taylor & Francis)*, 2013. 27, 548-553. (ISSN:1478-6419 and Impact Factor 2.1).

41. Enhancing Nucleophilicity in Ionic liquid [bmim]HSO₄; a Recyclable and Benign Media for the Halogenation of alcohols. **Neeraj Gupta**, Govardhan L. Kad and Jasvinder Singh, *J. Mol. Cat. (Elsevier)*, **2009**, 302, 11-14. (ISSN: 1381-1169 and Impact Factor 5.0).
42. Regioselective Photochemical and Microwave Mediated Monobromination of Aromatic compounds using 2,4,4,6-Tetrabromo-2,5-cyclohexadienone. **Neeraj Gupta**, Jasvinder Singh, Govardhan L. Kad, Vasundhara Singh, *Synth. Commun. (Taylor & Francis)*, **2007**, 37, 3421-3428. (ISSN: 0039-7911 and Impact Factor 1.8).
43. Acidic ionic liquid [bmim]HSO₄ an efficient and Novel Catalyst for chemoselective acetalisation and thioacetalisation of Carbonyl compounds and their Subsequent Deprotection. **Neeraj Gupta**, Sonu, Jasvinder Singh, G. L. Kad, *Catal. Commun. (Elsevier)*, **2007**, 8, 1323-1328. (ISSN: 1566-7367 and Impact Factor 3.8).
44. Efficient Role of Ionic Liquid (bmim)HSO₄ as Novel Catalyst for Monotetrahydropyranlation of Diols and Tetrahydropyranlation of Alcohols. Jasvinder Singh, **Neeraj Gupta**, G. L. Kad, Jasamrit Kaur, *Synth. Commun. (Taylor & Francis)*, **2006**, 36, 2893-2900. (ISSN: 0039-7911 and Impact Factor 1.8).

Book Chapter:

45. Nanodiamonds for Catalytic Reactions, Chapter-18, In Book "Nanodiamonds: Advanced Material Analysis, Properties and Applications", **Neeraj Gupta**, Qi Wang, Guodong Wen, Dangsheng Su, (Elsevier), **2017**, 439-463. (ISBN: 9780323430326)

Work Published in Conference Proceeding

46. Electrochemical Sensing of Dopamine using Graphene Oxide Derived from Pine Needle Bio-waste, **Neeraj Gupta***, Kshipra Sen, Vikrant Singh, Abhishek Soni, Mohit Kapoor, *AIP Conference Proceedings*, 2020.
47. Catalytic conversion of saccharides into 5-hydroxymethylfurfural using aluminum Lewis acid catalysts. Folami T. Ladipo, **Neeraj Gupta**, Daudi Saangonyo, Barbara Knutson, Stephen Rankin, Brianna Smith, 2013, September. In *ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY* (Vol. 246). 1155 16TH ST, NW, WASHINGTON, DC 20036 USA: AMER CHEMICAL SOC.

Patent Granted and Commercialized:

48. Improved Process for Preparing Temozolomide, S. B. Bhirud, G. S. Sarin, **Neeraj Gupta**, Parveen Kumar, C. V. Srinivasan, L. Wadhwa, **2010**, (US Patent) Pub. No.: WO/2010/140168, International Application No. PCT/IN2010/000365.

Patents Filed:

49. A Process for Ionic Liquid Assisted Chemical Fixation of Carbon Dioxide, Abhishek Soni, **Neeraj Gupta***, **Indian Patent Filed** on 07/01/2020, Application Number 202011000732.
50. Energy Efficient Process for Extraction of Cellulose from Pine Needle Bio-Waste, **Neeraj Gupta***, **Indian Patent Filed** on 23/05/2018, Patent Filing Number 201811019305.
51. Rapid Process for the synthesis of 5-hydroxymethyl Furfural, **Neeraj Gupta***, **Indian Patent Filed** on 16/06/2018, Patent Filing Number 201811022583.
52. Novel Heterogeneous Catalysts for Conversion of Carbohydrates to 5-Hydroxymethylfurfural and Method Thereof, **Neeraj Gupta***, Poorva Devi, Sadhna Sharma, Kanchan Kumari, **Indian Patent Filed** on 08/12/2018, Patent Filing Number 201811046503.

Video and Online Material:

53. Completed one online course 'Spectroscopy for Organic compounds' in the year 2013-14 for the e-Univ program of the university that includes preparation of material for 45 lectures including video recording. **The course was awarded as best state level course by the university and a cash prize**

OVERVIEW OF RESEARCH PUBLICATIONS

S.No.	Impact Factor	Total number of Publications	Publishers	Scopus Indexed (Yes/No)	Type of Publication
1	12-15	2	Elsevier	Yes	Review and research paper
2	8-12	9	RSC, Wiley, Elsevier, ACS	Yes	Review and research papers
3	5-8	8	RSC, Wiley, Elsevier	Yes	Research papers

4	3-5	10	RSC, Wiley, Elsevier, MDPI	Yes	Research papers and Review
5	2-3	6	Elsevier	Yes	Research papers
6	1-2	6	Wiley, Elsevier and Taylor & Francis	Yes	Research papers
7	0-1	3	Taylor and Francis, IAU Iran	Yes	Research papers
8	-	1	Elsevier	Yes	Book Chapter
9	-	5	Patents	-	One international commercialized
10	-	2	American Chemical Society and American Institute of Physics	Yes	Conference Proceedings
Total		52			