

# Curriculum Vitae of Dr. V. K. Gupta



- Name** : Dr. Vinod Kumar Gupta  
FWIF, FNASc, FRSC
- Designation** : Professor of Chemistry
- Father's Name** : (Late) Sri. Jeewan Lal Gupta
- Date of Birth** : 17<sup>th</sup> January 1953
- Mailing Address** : **Professor Vinod Kumar Gupta**  
FWIF, FNASc, FRSC  
Distinguished Professor  
King Abdulaziz University, Jeddah,  
Saudi Arabia  
Public URL: <http://scholar.google.com/citations?user=0mc0D7wAAAAJ>  
ResearcherID: <http://www.researcherid.com/rid/F-6041-2011>  
Highlycited Researcher: <http://www.webometrics.info/en/node/58>
- Academic Qualification** : B. Sc. (1<sup>st</sup>. Div.) 1972, Meerut University  
M.Sc. (1<sup>st</sup> Div.) 1975, University of Roorkee  
Ph. D. 1979, University of Roorkee  
Post Doctoral Fellow (CSIR), Univ. of Roorkee, 1979-81.
- Employment Record** : Pool Officer (CSIR), Univ. of Roorkee, 1981-83.  
Lecturer, Univ. of Roorkee, 1983-94  
Marie Curie Fellow of European Commission,  
Univ. of Regensburg, Germany Feb.1993- July 93.  
Reader/ Assistant Professor, Univ. of Roorkee, 1994-98.  
Associate Professor, Univ. of Roorkee, 1998-2001  
Professor. IIT Roorkee, Roorkee, Since 2001  
Chair Professor at Chemistry Department, King Fahad  
University of Petroleum and Minerals Dhahran, Saudi Arabia.  
Vice – Chancellor, Dr. R M L Avadh University Faizabad, UP  
(09-05-2013-09-09-2013).  
Visiting Professor, King Saud University, Riyadh, Saudi Arabia  
Distinguished Professor, University of Johannesburg,  
South Africa
- Teaching Experience** : Thirty-Four years teaching experience (Physical, Analytical and General Chemistry) of under-graduate Engineering and Post-graduate classes, Department of Chemistry, Indian Institute of Technology Roorkee (formerly University of Roorkee)
- Field of Research** :  
1. Nanotechnology for Water  
2. Environmental Engineering  
3. Electro-analytical Chemistry  
4. Chemical sensors  
5. Waste Management
- Research Experience** : Thirty-four years research experience  
(a) Ph.D. Thesis supervised – **43**  
(b) M. Phil Thesis supervised – **10**  
(c) M.Sc. Dissertation supervised –**37**

## **PUBLICATIONS:**

### **Books:**

1. Nano Chromatography and Capillary Electrophoresis: Pharmaceutical and Environmental Analyses, John Wiley & Sons, Inc. (2009).
2. Environmental Water: Advances in Treatment, Remediation and Recycling, Elsevier, UK (2012).
3. Nanomaterial/Polymer Membranes. From Synthesis, Characterization to Applications, Elsevier, (2016).
4. Lanthanide Series Determination by Various Analytical Methods, Elsevier, (2016).

**Books Chapters: 13** Invited chapters in books and encyclopedias

**Research Papers/Reviews: 640** Papers in International Peer Reviewed Journals with high Impact Factors (Indian Journals - 28 Foreign Journals – 605); 37 reviews in highly cited Journals (Citations: **More than 77000** with **h index = 164**).

**Papers presented at various National and International Conferences: 50**

### **Academic Visits Abroad:**

Australia, Canada, Hungary, Italy, Japan, Netherlands, New Zealand, Singapore, Thailand, U.K., U.S.A., Germany, Hongkong, South Korea, France, Belgium, Saudi Arabia, Switzerland, Sweden, Iran, South Africa, China, Russia.

### **Ongoing Major Sponsored Research Projects**

1. Modification, Characterization and application of naturally occurring biomaterials for the removal of toxic contaminants from industrial wastewater, DST, Approved from April 2014 for 3 years with outlay of more than 30 Lac.

### **Major Sponsored Research Projects Completed During the recent past:**

1. Studies on some highly selective receptors and their use in chemical sensors for ion Recognition (DST-DAAD Project Based Personnel Exchange Programme (PPP)-2002-2005).
2. Removal of toxic substances from wastewater using inexpensive alternatives to carbon, (CSIR, New Delhi, Sep.2002-2005).
3. Development of low-cost adsorbents for the removal of toxic metal ions from water using algal biomass (DST, GOI, Oct. 2006- 2009 Project cost Rs. 14.50 lacs).
4. Development of effective adsorbents from waste rubber tires for waste water treatment, DST, Approved from August 2012 for 3 years with outlay of more than 23 L

### **National and International Collaboration:**

1. National Institute of Hydrology, Roorkee, India.
2. Central Building Research Institute, Roorkee, India.
3. Industrial Toxicology Research Centre, Lucknow, India.
4. Jiwaji University, Gwalior, India.
5. Chemnitz Technical University, Chemnitz, Germany.
6. Freie University of Berlin, Germany.
7. Korea National University of Education, Seoul, South Korea.
8. University of Regensburg, Regensburg, Germany.
9. University of Belgrade, Bor, Serbia, Yugoslavia.
10. King Fahd University of Petroleum and Minerals, Dhahran-31261, Saudi Arabia
11. University of Leuven, Leuven, Belgium.

## Recognitions:

1. Highly Cited Researcher in Chemistry, Ecology and Environmental Engineering as per Thomson ISI.
2. Offered KFUPM Chair Professorship by King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, 2009.
3. Fellow of World Innovation Foundation (F.W.I.F.) (2004).
4. Fellow of National Academy of Sciences (FNASc) (2008).
5. Fellow of Royal Society of Chemistry, London
6. India Citation Laurate Award in Chemistry in 2019
7. **Editor of following International Journals:**

Editor- Environmental Science and Pollution Research (2011-2013)  
Editor- International Journal of Environmental Science and Technology  
Senior Editor- Insciences Journal - Sensors  
Editor -International Journal of Industrial Chemistry  
Editor - Frontiers in Analytical Chemistry  
Editor-Analytical Chemistry Letters (2014 onwards---)  
Editor- International Journal of Electrochemical Science

## 8. Membership of Editorial Boards of the

Oxidation Communications (1982- onwards)  
Sensors (2000- onwards)  
Sensor Letters (2002 – onwards)  
Talanta (2005 - 2007).  
Indian Journal of Chemical Technology (2005 onwards)  
International Journal of Electrochemical Science (2006 onwards)  
Recent Patents on Engineering (2007-onwards)  
J. Hazardous Materials (2007-2012)  
International Journal of Chemical Engineering (2008 -onwards)  
International Journal of BioSciences and Technology (2008- onwards)  
The Open Waste Management Journal (2008- onwards)  
Analytical & Bioanalytical Electrochemistry (2009-onwards)  
J. Coll. Interface Science (2010-2012)  
Advanced Materials Letters (2010 onwards)  
Desalination and Wastewater Treatment (2010 onwards)  
Toxicological & Environmental Chemistry (2010 onwards)  
Chemical Sensors (2010 onwards)  
J. Sensor Technology.  
European Journal of Chemistry  
Colloids and Interface Science Communications (2014 Onwards)

## 9. Delivered Lectures at:

University of Western Australia, Perth, (Australia)  
Yokohama National University, Yokohama, (Japan)  
Kyushu University, Fukuoka, (Japan)  
Leuven University, Leuven, Belgium  
University of Twente, Enschede, Netherlands  
Technical University of Chemnitz, Chemnitz, Germany  
Free University, Brussels, Belgium

University of Texas at San Antonio, USA  
National University of Singapore (NUS)  
KFUPM, Dhahran, Saudi Arabia

**10. Chaired Sessions in 13 International Conferences:**

Hungary (1982), New Zealand (1984), Germany (1988, 2005), Canada (1992), South Korea (1996), Switzerland (2000), Japan (2001), France (2003), USA (2005), Singapore (2006, 2008), Iran (2012).

**11. Membership of the Research Degree Committees / Board of Studies for the following National level Institutions:**

HNB Garhwal University, Srinagar (UA) (2003-onwards)  
Rajeev Gandhi Technical University Bhopal (M.P.) (2006-onwards)  
Mizoram University, Aizwal (2006-onwards)  
National Institute of Technology, Bhopal (M.P.) (2002-onwards)  
National Institute of Technology, Kurukshetra (Haryana) (2006-onwards)  
C R University of Science & Technology, Murthal, Haryana  
IIT, BHU, Varansi; GND University, Amritsar; NIT, Jalandhar (Punjab)  
HBTI, Kanpur

**12. Membership of following Advisory Boards/ Committees:**

International Symposium on Sensors Science, held at Paris (France) 16 - 20 June 2003.  
International Symposium on Sensors Science, held in China, 16 - 20 June 2004.  
Department of Science and Technology, Govt. of India's to monitor a center at Kumaun University, Nainital (UA) 2002- onwards  
Third IEEE International Conference on Systems, Signals & Devices (SSD'05), March 21-24, 2005, Sousse – Tunisia.  
American Biographic Institute (2003-onwards).  
Indira Gandhi National Open University for Curriculum development  
International Symposium on Colloids and Materials held at Amsterdam, The Netherlands, May, 2011.

**13. Invited to Chair a session/ speaker in the following International Events:**

28<sup>th</sup> Annual International Symposium on Environmental Analytical Chemistry held in Geneva, Switzerland March 1-5, 1998.  
5<sup>th</sup> East Asian conference on Chemical Sensors (EACCS' 01) held at Huis Ten Bosch, Nagasaki, Japan during 4-7 Dec. 2001.  
9<sup>th</sup> International Meeting on Chemical Sensors, Boston, USA, 7-11 July 2002.  
National Seminar on Recent Advances in Analytical Chemistry, to be held at J.N. Vyas University, Jodhpur, India, Nov.- Dec. 2004.  
41st Annual Convention of Chemist 2004, Delhi, Dec. 2004  
6<sup>th</sup> East Asian Conference on Chemical Sensors held at Guilin, China (November, 2005).  
13<sup>th</sup> International Conference on Flow Injection Analysis and Related Techniques (ICFIA 2005), Las Vegas, Nevada USA, April, 2005.  
4th ISE Spring Meeting 2006 held in Singapore during 17-21 April 2006.  
Invited Speaker at the 1st Regional Electrochemistry Meeting of South-East Asia 2008 held at National University of Singapore, Singapore, during 5-7<sup>th</sup> August 2008.

**14. Visiting Professor at Department of Environmental Chemistry, Jiwaji University, Gwalior. India.**

**15. Chair Professor, Department of Chemistry, KFUPM Dhahran, Saudi Arabia**

**Awards:**

- KHOSHLA RESEARCH PRIZE (Commendation Certificate) 1991.
- European Commission Post Doctoral Fellowship awarded by European Commission and DST, Govt. of India in 1992 - 1993 to work at Institute of Organic Chemistry, University of Regensburg (Germany).
- First KHOSLA RESEARCH AWARD and GOLD MEDAL, 1996.
- SECOND KHOSLA RESEARCH AWARD and SILVER MEDAL, 1996
- DAAD Visiting Professorship for two months during 2002-2003.
- Star Performer at IIT, Roorkee in the Session 2002-2003; 2003-2004.
- Fellow of the World Innovation Foundation (2004).
- India Citation Laureate Award (2004).
- Star Performer at IIT, Roorkee in the Session 2004 - 2005.
- Star Performer at IIT, Roorkee in the Session 2005 - 2006.
- Star Performer at IIT, Roorkee in the Session 2006 - 2007.
- Fellow of the National Academy of Sciences, (FNASc) 2008.

**Membership of Scientific Societies:**

1. American Chemical Society
2. Life Member Indian National Science Congress Association.
3. Elected Member of Chemistry Sectional Committee for 89th Session of ISCA
4. Asian Council of Science Editors
5. Life Member Indian Society for Electro analytical Chemistry (ISEAC)
6. Member International Society of Electrochemistry.
7. Bioelectrochemical Society

**Organization of National/ International Conferences:**

1. Member Organizing Committee in the National Symposium on Radiation and Photochemistry, to be held at University of Roorkee, Feb.21-23, 2001.
2. Member National Advisory Committee of the National Symposium on Advanced Instrumental Methods of Analysis held during 7-8 June 2002 at Dehradun (UA).
3. Organizing Secretary 22<sup>nd</sup> Annual Conference of Indian Council of Chemists, held at Roorkee, India, 17-19 Oct. 2003.
4. Chairman for Symposium on "Role of Chemical Sensors in Environmental Monitoring in Asia" in the 6<sup>th</sup> East Asian Conference on Chemical Sensors held at Guilin, China during November 2005.
5. 6<sup>th</sup> East Asian Conference on Chemical Sensors held at Guilin, China (November, 2005).
6. Member Advisory Committee of National Conference on Greener Aspects of Electrochemistry held at Jiwaji University, Gwalior, during 7-9 Dec. 2007.
7. Member International Advisory Committee of the "Regional Electrochemistry Meeting of South-East Asia (REMSEA)" to be held at NUS, Singapore during 5-7 Aug. 2008
8. Member International Advisory Committee of The sixth International Multi-Conference on Systems, Signals and Devices SSD'09, 23-26 March 2009, Jerba, Tunisia
9. Member International Scientific Committee for Colloids & Materials 2011, to be held during 8-11 May 2011, Amsterdam, The Netherlands.

## Chronological statement of Administrative Experience

The duties and responsibilities of each of these positions were discharged earning recognition and credibility.

- Distinguished Visiting Professor, University of Johannesburg, Johannesburg, South Africa wef Feb.2015
- Chair Professor at KFUPM Dhahran, Saudi Arabia
- Visiting Professor, KSU Riyadh, Saudi Arabia
- Member University Court, Central University Haryana wef 27<sup>th</sup> Jan 2014.
- Vice Chancellor, Dr. R M L Avadh University Faizabad, UP (09-05-2013 09-09-13)
- Head of the Chemistry Department (01-01-2011 -08-05-2013)
- Member, Executive Committee of Senate (1.1.2006-31.12.2008 and 01-01-2011 onwards)
- Professor in-charge Security (01-01-2009 till 25 Sep. 2009)
- Dean of Students' Welfare (1.1.2006- 31.12.2008)
- Assoc. Dean of Students' Welfare (01.01.2003 – 31.04.2006)
- Chairman, Discipline Committee of IIT Roorkee (01.01.2003 to 31.04.2006)
- Chairman, Coordinating Committee of Bhawans (CCB) (01.01.2003 to 31.04.2006)
- Member, Board of Post Graduate Studies and Research (2003 – 2006)
- Vice Chairman JEE-P 2003 (Entrance for Uttaranchal Polytechnics)
- Staff Advisor, Yogic Exercises (one year) and Dy. Chief Advisor, Institute Educational Cinema Club (2002 – 2005)
- Chief Warden Govind Bhawan (1.6.95 to 31.3.98) and Azad Bhawan (13.6.2000 -31.12.2002) and Warden of few Bhawans.
- Elected Member of University of Roorkee Syndicate (11.2.2000 -20.9.2001) and first BoG of IIT Roorkee (21.09. 2001 -March 2002).
- Dy. Officer-in-Charge University of Roorkee Convocation-2001
- Officer In charge, University Vehicle Section (1998 to 1999), Coordinator Transportation REE-1994 & 1995, CPMT (1998 & 1999)
- Member, University of Roorkee Senate (1995 to 1998).

### Publications

#### Books

1. Nano Chromatography and Capillary Electrophoresis: Pharmaceutical and Environmental Analyses, John Wiley & Sons, Inc. (2009).
2. Environmental Water: Advances in Treatment, Remediation and Recycling, Elsevier (2012).
3. Nanomaterial/Polymer Membranes. From Synthesis, Characterization to Applications, Elsevier, (2016 under publication).
4. Lanthanide Series Determination by Various Analytical Methods, Elsevier, (2016).

#### Invited chapters:

1. Synthetic Dyes for the '*Handbook of TLC*' Marcel and Dekker, U.S.A. 1990.
2. Synthetic Dyes for the '*Handbook of TLC*' Marcel and Dekker, U.S.A. 1996.
3. Adsorbents for Water Treatment: Low Cost Alternatives to Carbon for the '*Encyclopedia of Surface and Colloid Science*' edited by Arthur Hubbard for Marcel Dekker, U.S.A., volume 1, pages 136-166, 2002.
4. Synthetic Dyes for the '*Handbook of TLC*' Marcel and Dekker, U.S.A. 2003.
5. Adsorbents for Water Treatment: Development of Low Cost Alternatives to Carbon for the updated '*Encyclopedia of Surface and Colloid science*' edited by Somasundaran for Marcel Dekker, Pages 1-34, 2003.
6. Advances in Chiral Pollutants Analysis by Capillary Electrophoresis for '*Encyclopedia of Chromatography*' published by Marcel Dekker, 2004 pages 92-100.
7. Adsorbents for Water Treatment: Development of Low Cost Alternatives to Carbon for '*Encyclopedia of Surface and Colloid Science*', Second Edition; Taylor & Francis: New York, 2006; 1, pp. 149 – 184.
8. Ion-Selective Electrodes for Sensing of Metal Cations for the '*Encyclopedia of Sensors*' Volume 5, edited by Craig A. Grimes and Beth Dickey, published by American Scientific Publishers (2006) pp.133-150.
9. Metal Ions Speciation in the Environment: Distribution, Toxicities and Analyses for the book Concepts and Applications in Environmental Geochemistry, Developments in Environmental Science, Volume 5: edited by Dibyendu Sarkar, Rupali Datta, Robyn Hannigan, published by Elsevier (2007), pages 33-56.
10. Electrochemical Sensors for Liquid Environment, for the book "Chemical Sensors" edited by Prof. Ghenadii Korotcenkov and published by Momentum Press (USA) (2011) Vol. 5 pages 125-169.
11. Syntheses of Carbon Nanotube-Metal Oxides Composites; Adsorption and Photo-degradation, for the book "Carbon Nanotubes - From Research to Applications" Edited by: Stefano Bianco; Published by Publisher: InTech; ISBN 978-953-307-500-6 (2011) pages 295-312.

12. Adsorption on carbon Nanotubes, For the book “Solvent Extraction, Ion-exchange and adsorption” Edited by: Dr. Naushad Ghauri: published by, Nova Science Publishers, Inc., USA. (2012).
13. Covalent and Non-Covalent Functionalization of Carbon Nanotubes. *Advanced Carbon Materials and Technology* (2013): 317. John Wiley & Sons.
14. Liquid-Liquid Separation through Polymeric Membranes; in *Transport Properties of Polymeric Membranes* (2017) Elsevier

#### Reviews:

1. V. K. Gupta, I. Ali, and H.Y. Aboul-Enein, Chiral resolution of some environmental pollutants by capillary electrophoresis, **Electrophoresis**, 24(9) 1360-1374-(2003).
2. V. K. Gupta, I. Ali, and H.Y. Aboul-Enein, Chirality: A challenge for the Environmental Scientists, **Current Science**, 84(2), 152-156 (2003).
3. V. K. Gupta, Potentiometric sensors for heavy metals- an overview, **Chimia**, 59,209-217(2005).
4. I. Ali, V.K. Gupta and H.Y. Aboul-Enein, Metal Ion Speciation and Capillary Electrophoresis: Application in the New Millennium, **Electrophoresis**, 26(21) 3988-4002 (2005).
5. I. Ali, H.Y. Aboul-Enein, V.K. Gupta and Sam F.Y. Li, Pharmaceuticals analysis by capillary electrophoresis at nanolevel detection **J. Cap. Electrophoresis and Microchip Tech.**, 009(5/6), 85 - 99 (2006).
6. I. Ali and V. K. Gupta, Advances in Water Treatment by Adsorption Technology, **Nature Protocols**, 1(6), 2661 - 2667 (2007).
7. I. Ali, V. K. Gupta, H. Y. Aboul-Enein, P. Singh, B. Sharma, Role of racemization in optically active drugs development, **Chirality**, 19(6), 453-463 (2007).
8. V. K. Gupta, I. Ali, H. Y. Aboul-Enein, Metal Ions Speciation in the Environment: Distribution, Toxicities and Analyses, **Developments in Environmental Science**, 5 (2007) 33-56.
9. I. Ali, V. K. Gupta and H. Y. Aboul-Enein, Capillary Electrophoresis at Nano Level Detection : Applications in pharmaceutical analysis, **Egypt. J. Chem., Special Issue (M.Sidky)**, 1-29 (2007).
10. I. Ali, V. K. Gupta, H. Y. Aboul-Enein, Chiral Resoution of Racemic Environmental Pollutants by Capillary Electrophoresis, **Critical Reviews in Analytical Chemistry**, 38, 132-146 (2008).
11. Imran Ali, V.K. Gupta, Hassan Y. Abul-Enein and Afzal Hussain, Hyphenation in Sample Preparation: Advancement from Micro to Nano World, **J. Sep. Sci.** 31, 2040-2053 (2008).
12. Imran Ali, Hassan Y. Aboul-Enein and V.K. Gupta, Microchip-Based Nano Chromatography and Nano Capillary Electrophoresis in Genomics and Proteomics, **Chromatographia**, 69, S13-S22 (2009).
13. V. K. Gupta and Suhas, Application of low cost adsorbents for dye removal- A review, **J. Environmental Management**, 90(2009) 2313-2342.
14. V.K. Gupta, P.J.M. Carrott, M.M.L. Ribeiro Carrott, Suhas, Low cost adsorbents: Growing approach to wastewater treatment – A review, **Crit. Rev. Environ. Sci. Technol**, 39, 783–842 (2009).
15. V.K. Gupta, Potentiometric sensors for inorganic anions based on neutral carriers - a review, **The Arabian J. Sci. Engg. A-Science**, 35(2A), 7-25 (2010).
16. V. K. Gupta, R. Jain, Shilpi Agarwal, Voltammetric Techniques for the Assay of Pharmaceuticals-a Review, **Analytical Biochemistry** 408 (2011) 179-196.
17. V. K. Gupta, A. Nayak, Shilpi Agarwal, Barkha Singhal, Recent Advances on Potentiometric Membrane Sensors for Pharmaceutical Analysis, **Combinatorial Chemistry & High Throughput Screening**, 14(4)(2011) 284-302.
18. V. K. Gupta, M. R. Ganjali, P. Norouzi, H. Khani, A. Nayak, and Shilpi Agarwal, Electrochemical Analysis of some Toxic Metals and Drugs by Ion Selective Electrodes, **Critical Reviews in Analytical Chemistry**, 41(2011)282–313.
19. M. Ahmaruzzaman, V. K. Gupta, Rice husk and its ash as low-cost adsorbents in water and wastewater treatment, **Ind. Eng. Chem. Res.**, 50 (2011) 13589–13613.
20. V. K. Gupta, Arunima Nayak, Shilpi Agarwal, Rajendra Dobhal, D.P. Uniyal, Prashant Singh, Bhavtosh Sharma, Shweta Tyagi, Rakesh Singh, Arsenic speciation analysis and remediation techniques in drinking water, **Desalination and Water Treatment**, 40(2012)231-243.
21. V. K. Gupta, A. Nayak, Shilpi Agarwal, R. Dobhal, D.P. Uniyal, P. Singh, B. Sharma, S. Tyagi, R. Singh, Advanced and hyphenated techniques for nano level analysis of iron in water, **Crit. Rev. Anal. Chem.**, 42(03) (2012) 245 - 256.

22. V. K. Gupta, I. Ali, T. A. Saleh, A. Nayak, S. Agarwal, Chemical Treatment Technologies for Wastewater Recycling –a Review, **RSC Advances** (2 (2012)6380 – 6388.
23. V. K. Gupta, Arunima Nayak, Shilpi Agarwal, Rajendra Dobhal, D.P. Uniyal, Prashant Singh, Bhavtosh Sharma, Shweta Tyagi, Rakesh Singh, Toxic metal ions in water and their prevalence in Uttarakhand, India, **Water Science and Technology: Water Supply**, **12(6)** (2012)773-782.
24. M. Ahmaruzzaman, V. K. Gupta, Application of coal fly ash in air quality management, **Ind. Eng. Chem. Res.**, 51, (2012) 15299–15314.
25. V. K. Gupta, T. A. Saleh, Sorption of Pollutants by Porous Carbon, Carbon Nanotubes and fullerene: an overview, **Env. Sci. Pollut. Res.**, 20 (2013) 2828-2843
26. V. K. Gupta, R. Kumar, A. Nayak, T. A. Saleh, M.A. Barakat, Adsorptive removal of dyes from aqueous solutions onto carbon nanotubes: A review, **Adv. Colloid Interface Sci.**, 193-194 (2013) 24-34.
27. T. A. Saleh, V. K. Gupta, Processing Methods and Characteristics of Porous Carbons Derived from Waste Rubber Tires: A Review, **Adv. Colloid Interface Sci.**, 211 (2014) 93-101.
28. V. K. Gupta, A. Nayak, B. Bhushan, S. Agarwal, A critical analysis on the efficiency of activated carbons from low cost precursors for heavy metals remediation, **Crit. Rev. Environ. Sci. Technol.** 45 (2015) 613–668.
29. V. K. Gupta, S. Khamparia, I. Tyagi, D. Jaspal, A. Malviya, Decolorization of mixture of dyes: A critical review, **Global J. Environ. Sci. Manage.**, 1(2015)71-94.
30. V. K. Gupta, H. Sadegh, M. Yari, R. S. Ghoshekandi, B. Maazinejad, M. Chahardori, Removal of ammonium ions from wastewater A short review in development of efficient methods, **Global J. Environ. Sci. Manage.**, 1(2) (2015) 149-158.
31. V. K. Gupta, A. Nayak, S. Agarwal, Bioadsorbents for remediation of heavy metals: Current status and their future prospects, **Environmental Engineering Research**, **20(1)** (2015)001-018.
32. K. Zare, V. K. Gupta, O. Moradi, A. S. H. Makhlof, M. Sillanpa, M. N. Nadagouda, H. Sadegh, R. Shahryari-ghoshekandi, A. Pal, Z.Wang, I. Tyagi, M.Kazemi, A comparative study on the basis of adsorption capacity between CNTs and activated carbon as adsorbents for removal of noxious synthetic dyes: a review, **J Nanostruct Chem**, 5(2015)227–236.
33. V.K. Gupta, I. Tyagi, H. Sadegh, R. Shahryari-Ghoshekandi, A. S. Hamdy Makhlof, B. Maazinejad, Nanoparticles as adsorbent; a positive approach for removal of noxious metal ions: A review, **Science, Technology and Development** 34 (2015)195-214.
34. V. K. Gupta, I. Tyagi, S. Agarwal, O. Moradi, H. Sadegh, R. Shahryari-ghoshekandi, A. S. H. Makhlof, M. Goodarzi, A. Garshasbi, Study on the removal of heavy metal ions from industry waste by carbon nanotubes: effect of the surface modification-A review, **Crit. Rev. Environ. Sci. Technol**, 46 (02), (2016) 93 – 120.
35. V. K. Gupta, Suhas, I. Tyagi, S. Agarwal, R. Singh, M. Chaudhary, A. Harit, S. Kushwaha, Column operation studies for the removal of dyes and phenols using a low cost adsorbent, **Global J. Environ. Sci. Manage.**, 2(1) (2016)1-10.
36. Suhas, V.K. Gupta, P.J.M. Carrott, R.D. Singh, M. Chaudhary, Sarita Kushwaha, Cellulose: A review as natural, modified and activated carbon adsorbent, **Bioresource Technology**, 216(2016) 1066-1076.
37. Hamidreza Sadegh; Goma A. M. Ali, Vinod Kumar Gupta, Abdel Salam Hamdy Makhlof, Ramin Shahryari-ghoshekandi; Mallikarjuna N. Nadagouda, Mika Sillanpää, Elzbieta Megiel, The Role of Nanomaterials as Effective Adsorbents and Their Applications in Wastewater Treatment: A Review, **J Nanostr. Chem.** 7 (1), 1-14 (2017).
38. Irina Burakova, Alexander Burakov; Evgeny Galunin; Anastassia Kucherova; Alexey Tkachev; Shilpi Agarwal; Vinod Kumar Gupta, Adsorption of heavy metals on conventional and nanostructured materials for wastewater treatment purposes: A review; **Ecotoxicology and Environmental Safety**, 148(2018) 702–712.
39. Vinod Kumar Gupta, Njud S. Alharbie, Shilpi Agarwal, Vladimir A. Grachev, New Emerging One Dimensional Nanostructure Materials for Gas Sensing Application: A Mini Review, **Current Analytical Chemistry**, 14 (2018) 131-135.



### DETAILS OF VISITS ABROAD

| S. No | From       | To         | Institute and the Country of Visit                                      | Purpose of Visit                                    |
|-------|------------|------------|---|---|
| 1     | 28.01.2016 | 12.02.2016 | CSIR, Pretoria, South Africa  | Bilateral Visit                                     |
| 2     | 12.06.2015 | 22.06.2015 | Malmo University, Sweden  | Conference  |
| 3     | 01.12.2014 | 25.01.2014 | KSU Riyadh & KFUPM Dhahran, Saudi Arabia                                | Lecture and Research                                |
| 4     | 04.11.2014 | 12.11.2014 | Al- Hasa and KFUPM Dhahran, Saudi Arabia                                | Keynote Speaker                                     |
| 5     | 25.09.2014 | 08.10.2014 | CSIR, Pretoria, South Africa  | Guest Professor                                     |
| 6     | 10.02.2013 | 15.02.2013 | University of Tehran, Iran and Kish Island , Iran                       | Conference  |
| 7     | 26.05.2012 | 15.07.2012 | King Fahd Univ. of Petroleum & Minerals, Dhahram, Saudi Arabia          | Lecture and Research                                |
| 8     | 12.05.2012 | 23.05.2012 | Nurenberg, Germany  | Research  |
| 9     | 04.02.2012 | 10.02.2012 | Iran( Tehran, Masjeed-Solyman)  | Conference  |
| 10    | 19.06.2011 | 24.06.2011 | Budapest, Hungary   | Conference  |
| 11    | 07.05.2011 | 11.05.2011 | Amsterdam, Netherlands  | Conference  |
| 12    | 11.09.2010 | 19.09.2010 | Stockholm, Sweden   | Conference  |
| 13    | 18.01.2010 | 23.06.2010 | King Fahd Univ. of Petroleum & Minerals, Dhahram, Saudi Arabia          | Chair Professor                                     |
| 14    | 17.04.2009 | 22.04.2009 | King Fahd Univ. of Petroleum & Minerals, Dhahram, Saudi Arabia          | Visit and Lectures                                  |
| 15    | 04.08.2008 | 08.08.2008 | National University of Singapore, Singapore                             | Conference  |
| 16    | 26.11.2007 | 01.12.2007 | RMIT University Melbourne, Australia                                    | Conference and Academic Visit                       |
| 17    | 01.12.2007 | 03.12.2007 | National University of Singapore, Singapore                             | Academic Visit                                      |
| 18    | 17.04.06   | 21.04.06   | National University of Singapore, Singapore                             | Academic Visit                                      |
| 19    | 08.10.05   | 16.10.05   | University of Reading, Reading, UK                                      | Visit and Lectures                                  |
| 20    | 01.07.05   | 31.07.05   | Chemnitz Technical University. Chemnitz, Germany                        | Visit and Lectures                                  |
| 21    | 19.07.05   | 19.07.05   | Institut National Polytechnique de Lorraine, Nancy, France              | Lectures/Research                                   |
| 22    | 18.07.05   | 20.07.05   | University of Aachen, Juelichn campus, Germany                          | Lecture   |
| 23    | 24.04.2005 | 06.05.2005 | Las Vegas, University of Texas at San Antonio and Intel at San Jose USA | Conference<br>Conference, lectures                  |
| 24    | 15.06.2004 | 14.07.2004 | Chemnitz Technical University. Chemnitz, Germany                        | and academic visits<br>DST-DAAD Project and Lecture |
| 25    | 23.06.2004 | 24.06.2004 | Universite Libre de Bruxelles, Bruxelles                                | Invited Lecture                                     |
| 26    | 24.06.2004 | 25.06.2004 | University of Leuven, Leuven, Belgium                                   | Academic discussion                                 |
| 27    | 24.06.2004 | 25.06.2004 | University of Twente, Enchede, The Netherlands                          | To Deliver a Lecture<br>To Chair a Session          |
| 28    | 06.07.2004 | 07.07.2004 | Int. Symposium on Sensors Science University of Leuven, Leuven, Belgium | To Deliver a Lecture                                |
| 29    | 15.06.2003 | 17.06.2003 | Chemnitz Technical University. Chemnitz, Germany                        | DST-DAAD Proj<br>DST-DAAD Proj.                     |
| 29    | 17.06.2003 | 19.06.2003 | Chemnitz Technical University. Chemnitz, Germany                        | and DAAD. Visiting Prof.                            |

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| 30 | 20.06.2003 | 09.07.2003 | CCS, ETH Technopark , Zurich<br>Switzerland                     | Visit and Lecture  |
| 31 | 15.06.2002 | 31.07.2002 | University of Regensburg,<br>Regensburg, Germany                | Academic Visit   |
| 32 | 27.06.2002 | 29.06.2002 | Freie University of Berlin,<br>Berlin, Germany                  | DAAD visiting Prof.<br>To deliver invited<br>talk and lectures |
| 33 | 02.07.2002 | 03.07.2002 | Yokohama National Univ.,  |  |
| 34 | 01.08.2002 | 30.08.2002 | Kyushu Univ. & Huisten-Bosch,<br>Nagasaki, Japan                |  |
| 35 | 01.12.2001 | 08.12.2001 | Basel and ETH Zurich,<br>Switzerland                            | Conference &<br>Academic visit<br>Conference                   |
| 36 | 01.07.2000 | 07.07.2000 | Inha University, South Korea                                    | Academic visit   |
| 37 | 25.08.1996 | 29.08.1996 | University of Hong Kong & Hong Kong                             | Visit of Institutes  |
| 38 | 30.08.1996 | 01.09.1996 | Univ. of Science & Technology, Hong<br>Kong                     | Conference &   |
| 39 | 01.02.1993 | 23.07.1993 | University of Regensburg, and other<br>Institutes, Germany      | EC Post Doc. Fellow<br>Conference & Visit<br>of Institutes     |
| 40 | 30.07.1992 | 07.08.1992 | University of Toronto & University of                           |  |
| 41 | 01.07.1990 | 08.07.1990 | Kingston, Canada  | Visit of Institutes  |
| 42 | 21.08.1988 | 26.08.1988 | University of Kent, U.K   | Conference &   |
| 43 | 24.08.1986 | 29.08.1986 | University of Regensburg, Germany.<br>Tokyo Institute of        | Visit of Institutes<br>Conference &                            |
| 44 | 30.08.1986 | 06.09.1986 | Technology, Tokyo, Japan.<br>Ohio State Univ., Columbus, U.S.A. | Visit of Institutes<br>Lecture & Visit of<br>University        |
| 45 | 17.08.1984 | 19.08.1984 | Univ. of Western<br>Australia, Perth, Australia                 | Visit of Institutes &<br>Lectures                              |
| 46 | 20.08.1984 | 25.08.1984 | Univ. of Auckland, New Zealand                                  | Conf. & visit of<br>Institutes                                 |
| 47 | 17.08.1982 | 25.08.1982 | Central Research Institute for Chemistry,<br>Hungary            | Conf. & visit of<br>Institutes                                 |

**DETAILS OF Ph. D. THESIS SUPERVISED**

| <b>S.No.<br/>(A)</b> | <b>Title of Thesis<br/>Ph.D. Degree Awarded</b>  | <b>Year</b> | <b>Name of candidate</b>  |
|----------------------|--|-------------|---------------------------|
| 1.                   | Kinetics and Mechanism of Oxidation of some Sulpha drugs by periodate.   | 1989        | Dr. (Ms) Rashmi Gupta     |
| 2.                   | Kinetics and Synthetic Studies on Cobalt (II), Nickel (II) and Copper (II) Macrocyclic Complexes.                        | 1990        | Dr. (Ms) Alka Maheshwari  |
| 3.                   | Kinetics and Mechanism of aminolysis of some Oxime Ethers.   | 1990        | Dr. Anurag Kumar          |
| 4.                   | Studies on Electrochemical Behaviour of some Organic Molecules of Biological Importance.                                 | 1991        | Dr. Alok Mittal           |
| 5.                   | Kinetics and Mechanism of Aminolysis of Some O-Aryloximes.   | 1992        | Dr. Pritam Singh          |
| 6.                   | Removal of some Inorganic and Organic Toxic Substances using Fertilizer and Blast Furnace Waste Material.                | 1995        | Dr. Dinesh Mohan          |
| 7.                   | Electroanalytical studies with membrane Sensors based on some macrocyclic compounds.                                     | 1996        | Dr. Suresh Jain           |
| 8.                   | Electroanalytical Studies on Ion Selective Solid Membrane Electrodes for Some Heavy Metals.                              | 1996        | Dr. Lok Pratap Singh      |
| 9.                   | Development of Sensors for Heavy metals and Their Removal by Slag-A Blast Furnace Waste Material.                        | 1996        | Dr. M.K. Dewivedi         |
| 10.                  | Electroanalytical studies on some Heterogeneous membranes as ion sensors.  | 1997        | Dr. Upendra Khurana       |
| 11.                  | Kinetic and Mechanistic Studies of Aminolysis Reactions of some O (2,4-Dinitrophenyl) Deriv-atives of Cyclic ketooximes. | 1998        | Dr. Neeraj Atrey          |
| 12.                  | Removal of some Inorganic and Organic Toxic Substances from water using Industrial Waste Materials.                      | 1999        | Dr. Saurabh Sharma        |
| 13.                  | Electroanalytical studies on Some ionic sensors for heavy metals.  | 2001        | Dr. Pankaj Kumar          |
| 14.                  | Removal of some Toxic Substances from Aqueous Solutions using Industrial Wastes.   | 2001        | Dr. (Ms.) Monica Sharma   |
| 15.                  | Development of Chemical Sensors for the Determination of some Toxic Metals.  | 2002        | Dr. (Ms.) Rajni Mangla    |
| 16.                  | Synthesis of some New Ionophores and investigation on their potentiality in ion sensing                                  | 2003        | Dr. Azad Kumar            |
| 17.                  | Development of Low Cost Adsorbents from Industrial Wastes for the Removal of Toxic Substances.                           | 2003        | Dr. Suhas                 |
| 18.                  | Removal of Some Heavy Metals, Phenols and Dyes from waste Water using Bagasse fly Ash- A sugar Industry Waste            | 2004        | Dr. I. V. S. Yadav        |
| 19.                  | Development of some PVC Based Ion Selective Electrodes and their Applications.   | 2005        | Dr.(Ms) Shiva Agarwal     |
| 20.                  | Analysis of some Drugs in wastewater using Chromatographic Techniques.   | 2005        | Dr. H. V. Pant            |
| 21.                  | Electrochemical and Adsorption Studies on the removal of some Organic Pollutants, Particularly Dyes, from waste water    | 2005        | Dr. (Ms.) Shaily Varshney |
| 22.                  | Electro analytical studies on some ion selective electrodes  | 2006        | Dr. Jitendra Raisonni     |
| 23.                  | Removal of toxic substances from wastewater using inexpensive alternatives to carbon                                     | 2007        | Dr. Vipin Kumar Saini     |

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| 24 | Development of some Potentiometric Sensors for the Determination of Toxic Metal Ions                          | 2007 | Dr. Gaurav Maheshwari      |
| 25 | Electrochemical studies on some biologically important compounds and ion sensors                              | 2007 | Dr. (Ms.) Neeta Bachhetti  |
| 26 | Removal of dyes from wastewater using photochemical and adsorption techniques                                 | 2008 | Dr. (Ms.) Shalini Sikarwar |
| 27 | Studies on some potentiometric sensors for ion determination  | 2008 | Dr. Barkha Gupta           |
| 28 | Chromatographic analysis of some drugs in biological samples  | 2009 | Dr. Uma Negi               |
| 29 | Electro-organic Chemistry of some Biomolecules  | 2010 | Dr. Ramo Avtar Sharma      |
| 30 | Studies on some biosensors for drugs Electroanalytical studies on some biologically important compounds       | 2010 | Dr. Manoj Pal              |
| 31 | Electroanalytical studies on some biologically important compounds  | 2010 | Dr. Sanghamitra Chatterjee |
| 32 | Synthesis and Characterization of Carbon Nanotube-Based Composites and their Applications for Water Treatment | 2011 | Dr. Twafik A. Saleh        |
| 33 | Development of low cost adsorbents for waste water treatment  | 2012 | Dr. Arunima Nayak          |
| 34 | Bioremediation of some toxic substances from waste water using living biomass                                 | 2013 | Dr. Prerna Singh           |
| 35 | Electroanalytical studies on some ion selective Membrane electrodes.  | 2014 | Dr. A. K. Bharti           |
| 36 | Studies on lignocellulosic-isocyanate polymer Composites.   | 2014 | Dr. Monika                 |
| 37 | Castor oil Transesterification- Experimental and Modeling Studies.  | 2014 | Dr. Payal                  |
| 38 | Design and Synthesis of prospective antimalarials by [4+1] multicomponent reaction.                           | 2015 | Dr. Manoj Kumar            |
| 39 | Design and synthesis of fluorescence turn-on chemosensors for some metal ions                                 | 2015 | Dr. M. Naveen              |
| 40 | Assessment of metal ion sensing abilities of some optical chemosensors  | 2015 | Dr. L. K. Kumawat          |
| 41 | Studies on some chemical Sensors for biomolecules and toxic metals  | 2016 | Dr. Sudhir Kumar Shoorra   |
| 42 | Synthesis of metal oxides nanostructures for the removal of toxic residues                                    | 2016 | Mr. Monu                   |
| 43 | Development of novel adsorbents for removal of noxious impurities from wastewater                             | 2016 | Mr. Inderjeet Tyagi        |

## Research Papers:

1. Peyman Mohammadzadeh Jahani, Maedeh Jafari, Vinod Kumar Gupta, Shilpi Agarwal, Graphene quantum dots/ionic liquid-Modified Carbon Paste Electrode-Based Sensor for Simultaneous voltammetric determination of norepinephrine and acetylcholine, **Int. J. Electrochem. Sci.**, 15(2020) xx – yy.
2. Duddukuru Saritha, Vinod Kumar Gupta, Ambavaram Vijaya Bhaskar Reddy, Shilpi Agarwal, Muhammad Moniruzzaman<sup>3,4</sup>, Kowthalam Anitha<sup>5</sup>, Gajulapalle Madhavi<sup>1</sup>, Development of a Simple, Selective, Stable and Ultrasensitive Poly (safranin/nano NiO) Modified Carbon Paste Electrode for Selective Detection of Rutin in Buckwheat and Green Tea Samples, **Int. J. Electrochem. Sci.**, 14 (2019) 10093 – 10110.
3. BehanmMaazinej, Osveh Mohammadnia, Gomaa A.M. Ali. Abdel S.H. Makhlof, Mallikarjuna N. Nadagouda, Mika Sillanpää, Abdullah M. Asiri, Shilpi Agarwal, Vinod Kumar Gupta, HamidrezaSadeghi, Taguchi L9 (34) Orthogonal Array Study Based on Methylene Blue Removal by Single-Walled Carbon Nanotubes-Amine: Adsorption Optimization using the Experimental Design Method, Kinetics, Equilibrium and Thermodynamics, **Journal: Journal of Molecular Liquids**
4. Mostafa Rajabi, Oim Moradi, Mika Sillanpää, Karim Zare, Abdullah M. Asiri, Shilpi Agarwal, Vinod Kumar Gupta, Removal of toxic chemical ethidium monoazide bromide using graphene oxide: Thermodynamic and kinetics study, **Journal of Molecular Liquids**, 293C (2019) 111484.
5. Ehsan Pourtaheri<sup>1</sup>, Mohammad Ali Taher<sup>1</sup>, Gomaa A.M. Ali, Shilpi Agarwal, Vinod Kumar Gupta, Low-cost and Highly Sensitive Sensor for Determining Atorvastatin Using PbTe Nanoparticles-Modified Graphite Screen-Printed Electrode, **Int. J. Electrochem. Sci.**, 14 (2019) 9622 – 9632,
6. Silver mediated Bi<sub>2</sub>O<sub>3</sub> and graphitic carbon nitride nanocomposite as all solid-state Z scheme photocatalyst for imidacloprid pesticide abatement from water, **Desalination and Water Treatment**
7. AnahitaManafi, MojganHosseini, AliFakhri, Vinod KumarGupta, ShilpiAgarwal, Investigation of photocatalytic process for iron disulfide-bismuth oxide nanocomposites by using response surface methodology: Structural and antibacterial properties, **Journal of Molecular Liquids**, 286C (2019) 110950.
8. Sonu, VishalDutta, SheetalSharma, PankajRaizada, AhmadHosseini-Bandegharaeic, VinodKumar Gupta, PardeepSingh, Review on augmentation in photocatalytic activity of CoFe<sub>2</sub>O<sub>4</sub> via heterojunction formation for photocatalysis of organic pollutants in water, **Journal of Saudi Chemical Society**,
9. Pankaj Raizada, Anita Sudhaik, Pardeep Singh, Pooja Shandilya, Vinod Kumar Gupta, Shilpi Agrawal, Ahmad Hosseini-Bandegharaeid, Ag<sub>3</sub>PO<sub>4</sub> modified phosphorus and sulphur co-doped graphitic carbon nitride as a well dispersed and stable Z-scheme photocatalyst for 2, 4-dimethyl phenol degradation. **j. Photochem.J. Photobiology-A**, 374 (2019) 22-35.
10. Ehsan Pourtaheri, Mohammad Ali Taher, Gomaa A.M. Ali, Shilpi Agarwal, Vinod Kumar Gupta, Electrochemical detection of gliclazide and glibenclamide on ZnIn<sub>2</sub>S<sub>4</sub> nanoparticles-modified carbon ionic liquid electrode, **Journal of Molecular Liquids**, 289C (2019) 111141.
11. Xiaojun Li, Zhijun Zhang, Ali Fakhri, Vinod Kumar Gupta, Shilpi Agarwal, Adsorption and photocatalysis assisted optimization for drug removal by chitosan-glyoxal/ Polyvinylpyrrolidone/MoS<sub>2</sub> nanocomposites, **International Journal of Biological Macromolecules**, 136C (2019)469-475.

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13. VishalDutta, PardeepSingh, PoojaShandilya, SheetalSharma, PankajRaizada, Adesh K. Saini, Vinod Kumar Gupta, AhmadHosseini-Bandegharaeie, ShipliAgarwal, AbolfazlRahmani-Sani, Review on advances in photocatalytic water disinfection utilizing graphene- and graphene derivatives-based nanocomposites, *Journal of Environmental Chemical Engineering*, **7** (2019) 103132
14. Hamidreza Sadegh, Gomaa A. M. Ali, · Shilpi Agarwal, · Vinod Kumar Gupta, Surface Modification of MWCNTs with Carboxylic-to-Amine and Their Superb Adsorption Performance, *International Journal of Environmental Research*, **13** (2019) **523–531**.
15. Devaraj Manoj, Saravanan Rajendran, Jiaqian Qin, Elumalai Sundaravadivel, Mehmet Lütüfi Yola, Necip Atar, F. Gracia, Rabah Boukherroub, M. A. Gracia-Pinilla, Vinod Kumar Gupta, Heterostructures of mesoporous TiO<sub>2</sub> and SnO<sub>2</sub> nanocatalyst for improved electrochemical oxidation ability of Vitamin B<sub>6</sub> in pharmaceutical tablets, *Journal of Colloid and Interface Science*, **542**, (2019), **45-53**.
16. Mansoureh Miraki, Hassan Karimi-Maleh, Mohammad A. Taher, Somaye Cheraghi, Fatemeh Karimi, Shilpi Agarwal, Vinod Kumar Gupta, A voltammetric amplified platform based on room temperature ionic liquid/NiO nanocomposite for simultaneous determination of benzerazide and levodopa, *J. Molecular Liquids*, **278**, (2019) 672-676.
17. Ali Azari, Mohammad Noorisepehr, Kamaladdin Karimyan, Seyed Yaser Hashe, Emad Dehganifard, Ebrahim Mohammadi Kalhori, Roghaye Norouzi, Shilpi Agarwal, Vinod Kumar Gupta, Experimental design, modeling and mechanism of cationic dyes biosorption on to magnetic chitosan-luteraldehyde composite, *International Journal of Biological Macromolecules*, **131C** (2019) 633-645.
18. M. Giah, D. Pathania, Shilpi Agarwal, Ali, G.A.M., Chonge, K.F, V. K. Gupta, Preparation of Mg-doped TiO<sub>2</sub> nanoparticles for photocatalytic degradation of some organic pollutants, *Studia Universitatis Babeş-Bolyai Chemia*, **64** (2019) 7-18.
19. Gomaa Abdelgawad Mohammed Ali, Ahmed Barhoum, Vinod Kumar Gupta, AmrAhmed Nada, Heba El-Maghrabi, Ramesh Kanthasamy, Essam Ramadan Shaaban, Hamed Algarnil and Kwok Feng Chong, High surface area mesoporous silica for hydrogen sulfide effective removal, *Current Nanoscience*, **2019**, **15**, **1-9**
20. Mohammad Hadi Dehghani, Mohammad Sarmadi, Mohammad Raza Alipour, Daryoush Sanaeid, Hamid Abdolmaleki, Shilpi Agarwal, Vinod Kumar Gupta, Investigating the Equilibrium and Adsorption Kinetics for the Removal of noxious Ni (II) from Aqueous Solutions using Adsorbents Prepared from the Treated Waste Newspapers: A Low-Cost and Available Adsorbent, *Microchemical Journal*, **146**(2019) 1043-1053.
21. Pankaj Raizada, Ahmad Hosseini-Bandegharaei, Ji-Ho Lim, Pardeep Singh, Hanbo Jung, Anita Sudhaik, Vinod Gupta, Adesh Saini, Pooja Shandilya, Fabrication of Ag<sub>3</sub>VO<sub>4</sub> decorated phosphorus and sulphur co-doped graphitic carbon nitride as a high-dispersed photocatalyst for phenol mineralization and E. Coli disinfection, *Separation and Purification Technology*, **212**(2019) 887-900.
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23. Pankaj Raizada, Anita Sudhaika, Virender Pratap Singh, Vinod Kumar Gupta, Ahmad Hosseini-Bandegharaei, Rajesh Kumar, Pardeep Singh, Solar light assisted degradation of oxytetracycline from simulated wastewater using Bi<sub>2</sub>O<sub>3</sub>/Fe<sub>3</sub>O<sub>4</sub> supported graphitic carbon nitride photocatalyst, *Desalination and Water Treatment*, **148** (2019) 338–350.

24. Gaurav Sharma, Sangeeta Bhogal, Vinod Kumar Gupta, Shilpi Agarwal, Amit Kumar, Deepak Pathania, Geneve Tessem Molag Florian J. Stadler, Algal biochar reinforced trimetallic nanocomposite as adsorptional/photocatalyst for remediation of malachite green from aqueous medium, **J. Molecular Liquids**, 275(2019) 499-509.
25. Ghorban Asgari, Alireza Dayari, Maryam Ghasemi, AbdolmotalebSeid-mohammadi, Vinod Kumar Gupta, Shilpi Agarwal, Efficient fluoride removal by preparation, characterization of pyrolysis bone: Mixed level design experiment and Taguchi L8 orthogonal array optimization, **J. Molecular Liquids**, 275 (2019) 251-264
26. Pardeep Singh, SonuaPankajRaizada, AnitaSuadhik, Pooja Shandilya, Pankaj Thakur, Shilpi Agarwal, Vinod Kumar Gupta, Enhanced photocatalytic activity and stability of AgBr/BiOBr/graphene heterojunction for phenol degradation under visible light, **Journal of Saudi Chemical Society**, 23 (2019) 586-599.
27. Kiomars Sharafi, Meghdad Pirsaeheb, Vinod Kumar Gupta, Shilpi Agarwal, Masoud Moradi, Yasser Vasseghiana Elena-NiculinaDragoi, Phenol adsorption on scoria stone as adsorbent - Application of response surface method and artificial neural networks, **J. Molecular Liquids**, 274(2019)699-714.
28. Mohammad Hadi Dehghania, SaeidehKamalianc, MansorehShayeghidMahmoodYousefi, Zoha Heidarinejad, Shilpi Agarwal, Vinod KumarGupta, High-performance removal of diazinon pesticide from water using multi-walled carbon nanotubes, **Microchemical Journal**, 145C (2019) 486-491.
29. Manthrapudi Venu, Sada Venkateswarlu, Yenugu Veera Manohara Reddy, Ankireddy Seshadri Reddy, Vinod Kumar Gupta, Minyoung Yoon, Gajulapalli Madhavi, Highly Sensitive Electrochemical Sensor for Anticancer Drug by a Zirconia Nanoparticle-Decorated Reduced Graphene Oxide Nanocomposite. **ACS Omega** 2018, 3, 14597–14605
30. AliFakhri, Vinod Kumar Gupta, Hanieh Rabizadeh, ShilpiAgarwal, NimaSadeghi, ShivaTahami, Preparation and characterization of WS2 decorated and immobilized on chitosan and polycaprolactone as biodegradable polymers nanofibers: Photocatalysis study and antibiotic-conjugated for antibacterial evaluation, **International Journal of Biological Macromolecules**, 120 (2018) 1789–1793.
31. MasoudMoradi, MaryamHeydari, MohammadDarvishmotevalli, KamaladdinKarimyan, Vinod KumarGupta, YaserVasseghianc, HooshmandSharafi, Kinetic and modeling data on phenol removal by Iron-modified Scoria Powder (FSP) from aqueous solutions, **Data in Brief**, 20(2018)957–968.
32. Yaya Safari, NasrinYoosefpour, MohammadDarvishmotavalli, Yaser Vasseghiana Kamaladdin Karimyan, Vinod Kumar Gupta, Omid Nasri, Arash Ziapoura, The dataset on rural women’s awareness and attitudes about residential constructions in accordance with the health standards A case study of Gilan-e-Gharb, Iran, **Data inBrief**20(2018)715–722.
33. Z. Atarodi, K. Karimyan, V. K. Gupta, Abbasi, M, Moradi, M. Evaluation of indoor air quality and its symptoms in office building – A case study of Mashhad, Iran, **Data in Brief**, 20(2018)74-79.
34. Masoud Moradia, Ali Esrafilib, Meghdad Pirsaeheba, Vinod Kumar Gupta. Hooshmand Sharafid, Hossein Arfaeina, Roshanak Rezaei Kalantary, The Inactivation of Fecal Coliform Using Fe<sub>3</sub>O<sub>4</sub>@Cu Nanocomposite in Real Wastewater: Emphasizing on Synergic Effect and Inactivation Mechanisms; **Des.Wastewater Treatment**, 123 (2018) 41–51.
35. Viond Kumar Gupta, Shilpi Agarwal, M. Venu1, Sada Venkateswarlu, Y. Veera Manohara Reddy, S. Kiranmail, D. Saritha, Ch. Madhuri, G. Madhavi, Simultaneous determination of Dopamine, Uric acid and Folic acid with Electrochemical Techniques based on Co<sub>3</sub>O<sub>4</sub>/rGO/CTAB Modified Carbon Paste Electrode, **Int. J. Electrochem. Sci.**, 13 (2018) 11702 – 11719.
36. Vinod Kumar Gupta, Hassan Karimi-Maleh, Shilpi Agarwal, Fatemeh Karimi, Majede Bijad, Mohammad Farsi, Seyed-Ahmad Shahid, Fabrication of a Food Nano-Platform Sensor for Determination of Vanillin in Food Samples, **Sensors Sensors**, (18) 2018, 2817 .

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38. Yahya Safari; Kamaladdin Karimyan; Vinod Kumar Gupta; Arash Ziapour; Masoud Moradi; Nasrin Yoosefpoor; Maliheh Akhlaghi; Hooshmand Sharafi, A Study of Staff's Awareness and Attitudes towards the Importance of Household Hazardous Wastes (HHW) Management (A Case Study of Kermanshah University of Medical Sciences, Kermanshah, Iran, **Data in Brief**, 19(2018) 1490-1497.
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41. Yaya Safari, Sara Maleki, Kamaledin Karimyan, Hossein Arfaeinia, Vinod Kumar Gupta, Nasrin Yoosefpoor, Naseh Shalyari, Maliheh Akhlaghi, Hooshand Sharfi, Arash Ziapour, Data for interventional role of training in changing the knowledge and attitudes of urban mothers towards food hygiene (A case study of Ravansar Township, Kermanshah, Iran), **Data in Brief**, 19C (2018) 67-75.
42. Y. Veera Manohara Reddy, Bathinapatla Sravani, Shilpi Agarwal, Vinod Kumar Guptha, , G. Madhavi, Electrochemical sensor for detection of uric acid in the presence of ascorbic acid and dopamine using the poly(DPA)/SiO<sub>2</sub>@Fe<sub>3</sub>O<sub>4</sub> modified carbon paste electrode, **Journal of Electroanalytical Chemistry** 820C (2018) 168-175.
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### DETAILS OF M. Phil. THESIS SUPERVISED

| S.N. | Title of Thesis  | Year | Name of candidate      |
|------|--|------|------------------------|
| 1.   | Isolation of Phytosterols from Agricultural Wastes Press Mud of Sugarcane and Foot of Soyabean Oil Industry.                           | 1992 | Mr. Vivek Kumar        |
| 2.   | Studies on the Removal of Lead and Copper by Blast Furnace Slag - A Waste Material Generated in Steel Plants.                          | 1994 | Ms. Rajni Tyagi        |
| 3.   | Studies on the Application of Slag-A Blast Furnace Waste Material, for the Removal of some Heavy Metals                                | 1995 | Ms. Arshi Rastogi      |
| 4.   | Studies on the Removal of Lead and Chromium by Using Bagasse fly ash-A Sugar Industry Waste material.                                  | 1996 | Ms.Smriti Maheshwari   |
| 5.   | PVC based Organic Exchanger and Neutral Carrier Membranes as Ion-Selective Electrodes For the Determination of Sr(II) and Cd(II) ions. | 1997 | Ms. Shivani            |
| 6.   | Kinetic Studies on the Aminolysis Reaction of O- (2,4-dinitrophenyl) p-hydroxyaceto-phenone Oxime                                      | 1997 | Ms.Bhawna Kulshreshta  |
| 7.   | Removal of Copper from Aqueous Solutions using Red Mud - An Aluminum Industry Waste  | 1999 | Mr Azad Kumar          |
| 8.   | Removal of Nickel from Aqueous Solutions using Red Mud - An Aluminium Industry Waste   | 2000 | Mr. Avnish Kumar Arora |
| 9.   | Studies on some PVC based heterogeneous membranes as ion sensors   | 2001 | Mr. Saurav Mehta       |
| 10.  | Removal of some toxic substances from aqueous solutions using waste material   | 2003 | Ms.Ila Dharmsaktu      |



### DETAILS OF M. Sc. DISSERTATIONS SUPERVISED

#### *Degree Awarded*

- |     |   |      |                      |
|-----|---|------|----------------------|
| 1.  | Silver (I) Catalysed and uncatalysed oxidation of Vanadium (IV) by peroxydisulphate ion in sulphuric Acid.      | 1984 | Mr. N.C. Mathur      |
| 2.  | Kinetics and Mechanism of osmium(VIII) oxidation of Phosphate in Aqueous Alkaline Medium                        | 1985 | Mr. Alok Kumar Sinha |
| 3.  | Kinetics and Mechanism of Ruthenium(III) Catalysed Oxidation of some Aliphatic Amines by Hexacyanoferrate(III). | 1986 | Ms. Minal Jain       |
| 4.  | Kinetics of Oxidation of Serine and Threonine by Potassium Permanganate in Acid Medium.                         | 1987 | Mr. N. Prasad Babu   |
| 5.  | Kinetics of oxidation of <i>o</i> -methoxy-aniline by Periodate in Acetic Acid-water Medium                     | 1988 | Mr. Faizal S.        |
| 6.  | TLC Separation of Synthetic Dyes on Impregnated Layers.   | 1989 | Ms. Anju Joshi       |
| 7.  | Kinetics and Mechanism of oxidation of Aniline by Peroxomonosulphate in Acetic Acid-water Medium                | 1989 | Mr. Munish Sood      |
| 8.  | Removal of Phenolic Wastes by Chlorination  | 1990 | Mr. Anupam           |
| 9.  | Separation of Copper (II) from Manganese (II), Cobalt (II), Nickel (II) and Zinc (II) using Acetylacetone.      | 1990 | Ms. Nidhi Gupta      |
| 10. | Kinetic studies on the Peroxomono-sulphate Oxidation of Aniline.  | 1991 | Mr. Alok Kumar       |
| 11. | Studies on the Electrooxidation Product(s) of Sulfafurazole.  | 1991 | Ms. Rekha            |

|     |  |      |                              |
|-----|--|------|------------------------------|
| 12. | Kinetics of Oxidation of DL-methionine by Potassium dichromate.  | 1992 | Ms. Vartika Saran            |
| 13. | TLC Separation, Identification of Transition Metal Ions and their Quantitative Estimation by AAS.                | 1994 | Mr. Nagendra Dhagarra        |
| 14. | Studies on the Removal of some Substituted Phenols using Bagasse fly ash-A Sugar Industry Waste Material.        | 1994 | Ms. Navisha Johri            |
| 15. | Studies on PVC Based DBBP and DEPHA Membrane Electrodes for the Determination of Vanadyl Inos.                   | 1995 | Ms. Shalini Jain             |
| 16. | Separation and Identification of Some Transition Metal Ions by Thin Layer Chromatography.                        | 1995 | Mr. Vijay K. Bhaskar         |
| 17. | Removal of Phenol and p-Chlorophenol from Wastewater using Baggase Fly ash-A Sugar Industry Waste Material.      | 1996 | Ms. Pallavi Jain             |
| 18. | Studies on PVC Based TPP and TMP Membrane Electrodes for the Determination of Nickel (II) ions.                  | 1996 | Mr. Kaushik Dutta            |
| 19. | Removal of Rhodamine-B and Methylene blue from aqueous solutions using bagasse fly ash - A Sugar Industry Waste. | 1997 | Mr. Sachin Varshney<br>Vivek |
| 20. | Studies on the adsorption of zinc (II) ions on Red mud - an aluminium industry waste.                            | 1998 | Mr. Suhas                    |
| 21. | A PVC based dibenzo-18-crown-6 potentiometric sensor for Sr (II) ions.   | 1998 | Ms. Shilpa Khurana           |
| 22. | Kinetics and mechanism of aminolysis reactions of o- (2,4-dinitrophenyl)-cyclohexanone oxime in toluene          | 1999 | Mr. Navneet Kumar Tyagi      |
| 23. | Studies on Poly (Vinyl Chloride) Based Heterogeneous Membrane Electrode Selective for Cd <sup>2+</sup> ions.     | 2000 | Ms. Pooja Saxena             |
| 24. | Removal of congo red from aqueous solutions using bagasse fly ash  | 2001 | Mr. Ram Kuntal Hazara        |
| 25. | Study on PVC Based Ion Selective Electrode for Nickel(II) Ions   | 2002 | Ms. Surabhi Arya             |
| 26. | Study on PVC based ion selective electrode for cadmium (II) ion  | 2003 | Ms. Soni Gejwal              |

|    |  |      |                          |
|----|--|------|--------------------------|
| 27 | Electroanalytical Studies on a Poly (Vinyl Chloride) Based Membrane Electrode for Ca (II) Ions   | 2004 | Mr Srinivasa Rao Kadali  |
| 28 | Electroanalytical Studies on a poly (vinyl chloride) based ion selective electrode for Ni (II) Ions  | 2005 | Mr. Shobhit Nigam        |
| 29 | Development of PVC Based Ion-Selective Electrodes for Mn (II) Ions   | 2006 | Ms. Priya Agarwal        |
| 30 | Adsorption studies on the removal of Cr (VI) from aqueous solutions by Carbon Slurry- A Waste Material   | 2008 | Mr. Ajeet Singh          |
| 31 | Synthesis of a novel ionophore and its use in PVC membranes for the Determination of Zn <sup>2+</sup>  | 2009 | Mr. Satya Narayana       |
| 32 | Removal of vanadium from aqueous solutions using red mud-an aluminum industry waste as adsorbent   | 2011 | Mr. Tushar Suhasaria     |
| 33 | Removal of Methyl red from aqueous solutions using red mud-an aluminium industry waste   | 2012 | Mr. Bachhav Gaurav Dilip |
| 34 | Removal of p-cresol from aqueous solutions using native blue green algae as precursor  | 2013 | Mr. Sandeep Kumar Jain   |
| 35 | Colorimetric sensor based on Schiff's base for copper ion  | 2014 | Mr. Ankit S. Agrawal     |
| 36 | Flavonol based fluorescent chemo sensors for Al <sup>3+</sup> and Zn <sup>2+</sup>   | 2015 | Mr. Sumit                |
| 37 | In-silico docking studies of the derivatives of Dibenzothiazepine/dibenzoxazepine binding to The warfarin binding site of bovine serum albumin | 2016 | Mr. Ananya               |