

CURRICULUM VITAE

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Courses Taught: Group Theory, Ligand field Theory, Chemical Bonding, Reaction Mechanism, Bioinorganic Chemistry
Total teaching experience: 17years (Post graduate)
PhD guided : 4
MPhil guided: 11



Major Research Project :

Major research project entitled "Development of Preconcentration Methods for the Analysis of Drugs in Environment samples" approved by UGC, New Delhi, for financial assistance (Rs. 1181600/-) for three years (2015-18).

Publications

1.	Synthesis, Characterization, Analytical Application, and Theoretical Studies of a Schiff Base, (E)-2-(2-aminophenylthio)-N-(Thiophen-2-yl-methylene) Benzenamine	Asnake Lealem Berhanu, Irshad Mohiuddin, Ashok Kumar Malik & Jatinder Singh Aulakh	Journal of Fluorescence https://link.springer.com/article/10.1007/s10895-023-03435-5	2023
2.	Magnetic graphene oxide carbon dot nanocomposites as an efficient quantification tool against parabens in water and cosmetic samples	Sandeep Kumar, Shikha Bhogal, Ashok Kumar Malik & Jatinder Singh Aulakh	Environmental Science and Pollution Research (2023) https://link.springer.com/article/10.1007/s11356-023-29613-3	2023
3.	Bis(thiophen-2-yl-methylene) Benzene-1, 4-Diamine as Fluorescent Probe for	Asnake Lealem Berhanu,	Journal of Fluorescence volume 32, pages1247–1259 (2022)	2022

	the Detection of Fe ³⁺ in Aqueous Samples	Shikha Bhogal, Irshad Mohiuddin, Aman Grover, Ashok Kumar Malik & Jatinder Singh Aulakh	https://link.springer.com/article/10.1007/s10895-022-02914-5	
4.	An Ecofriendly and Efficient Approach through Sodium Oxalate Catalyst for the Synthesis of Azomethines and α -Aminonitriles Ligands Employing Aqueous Medium	Bikramjit Singh, Jatinder Singh Aulakh, and Baldev Singh	Asian J. Chem. , Vol. 34(6)/ pp 1549-1554/ 2022 https://doi.org/10.14233/ajchem.2022.23715	2022
5.	Magnesium/aluminum layered double hydroxides intercalated with starch for effective adsorptive removal of anionic dyes	Aman Grover, Irshad Mohiuddin, Ashok Kumar Malik, Jatinder Singh Aulakh, Kumar Vikrant, Ki-Hyun Kim, Richard JC Brown	Journal of Hazardous Materials Volume 424, Part B, 15 February 2022, 127454 I.F: 10.588 https://doi.org/10.1016/j.jhazmat.2021.127454	2022 Pdf not available
6.	Simultaneous determination of amitriptyline, nortriptyline, and clomipramine in aqueous samples using selective multi-template molecularly imprinted polymers	I Mohiuddin, S Bhogal, A Grover, AK Malik, JS Aulakh	Environmental Nanotechnology, Monitoring & Management Volume 16, December 2021, 100527 Cite score: 6.1 https://doi.org/10.1016/j.enmm.2021.100527	2021
7.	Starch-Mg/Al layered double hydroxide composites as an efficient solid phase extraction sorbent for non-steroidal anti-inflammatory drugs as environmental pollutants	I Mohiuddin, A Grover, JS Aulakh, AK Malik, SS Lee, RJC Brown, KH Kim,	Journal of Hazardous Materials 401, 123782 I.F: 10.588 https://doi.org/10.1016/j.jhazmat.2020.123782	2021
8.	Chitosan-Ni/Fe layered double hydroxide composites as an efficient solid phase extraction sorbent for HPLC-PDA monitoring of parabens in personal care products	A Grover, I Mohiuddin, AK Malik, JS Aulakh, D Kukkar, KH Kim,	264, 128429, Chemosphere I.F: 5.778 https://doi.org/10.1016/j.chemosphere.2020.128429	2021
9.	Experimental and theoretical studies of the schiff base (Z)-1-(thiophen-2-yl-methyleneamino) propane-2-ol	AL Berhanu, N Sharma, I Mohiuddin, AK Malik, JS Aulakh, J Lee, KH Kim	Journal of Molecular Structure 1200, 127104 I.F 2.463 https://doi.org/10.1016/j.molstruc.2019.127104	2020 january
10.	Porous molecularly-imprinted polymer for detecting diclofenac in aqueous pharmaceutical compounds	I Mohiuddin, A Grover, JS Aulakh, SS Lee, AK Malik, KH Kim	Chemical Engineering Journal 382, 123002 I.F: 10.65 https://doi.org/10.1016/j.cej.2019.123002	2020 February
11.	SiO ₂ @ Fe ₃ O ₄ -SB nano-hybrids as nanosorbent for preconcentration of cadmium ions from environmental water samples	S Kaur, K Kaur, A Kaur, JS Aulakh	8 (2), 103448 Journal of Environmental Chemical Engineering I.F : 7.96 https://doi.org/10.1016/j.jece.2019.103448	2020 April
12.	Efficient Recognition and Determination of Carbamazepine and Oxcarbazepine in Aqueous and Biological Samples by Molecularly Imprinted Polymers,	I Mohiuddin, AK Malik, JS Aulakh	Journal of Analytical Chemistry 75 (6), 717-725 IF: 0.840 (2019) https://link.springer.com/article/10.1134/S1061934820060143	2020 june

13.	Zn-Al layered double hydroxides intercalated with surfactant: Synthesis and applications for efficient removal of organic dyes	A Grover, I Mohiuddin, AK Malik, JS Aulakh, KH Kim	Journal of Cleaner Production 240, 118090 IF: 7.246 https://doi.org/10.1016/j.jclepro.2019.118090	2019
14.	Surfactant-modified Zn/Al layered double hydroxides for efficient extraction of alkyl phenols from aqueous samples.	Grover, Aman, Ramandeep Kaur, Irshad Mohiuddin, Ashok K. Malik, Jatinder Singh Aulakh, Yiu Fai Tsang, and Ki-Hyun Kim	Environmental Research vol 177, 108605, IF = 5.026 https://doi.org/10.1016/j.envres.2019.108605	2019
15.	Preparation and evaluation of a porous molecularly imprinted polymer for selective recognition of the antiepileptic drug carbamazepine.	Mohiuddin, Irshad, Asnake Lealem Berhanu, Ashok Kumar Malik, Jatinder Singh Aulakh, Jechan Lee, and Ki-Hyun Kim.	Environmental Research Vol 176, 108580, IF = 5.026 https://doi.org/10.1016/j.envres.2019.108580	2019
16.	A review of the applications of Schiff bases as optical chemical sensors	Asnake Lealem Berhanu, Gaurav, Irshad Mohiuddin, Ashok Kumar Malik, Jatinder Singh Aulakh, Vanish Kumar, Ki-Hyun Kim	TrAC Trends in Analytical Chemistry Vol 116, 74-91, Impact Factor: 7.03 https://doi.org/10.1016/j.trac.2019.04.025	2019
17.	Fabrication of Zn(II) Selective Polyvinyl Chloride Membrane Electrode based on N,N'-bis(1-hydroxynaphthalene-2-carbaldehyde)-o-phenylenediamine as an Ionophore: Experimental and Theoretical Approaches	Karamjeet Kaur, Jatinder Singh Aulakh, Ashok Kumar Malik	Journal of Analytical Chemistry 74(2), 134-142 Impact Factor: 0.971 https://link.springer.com/article/10.1134/S1061934819020084	2019
18.	Croton Aqueous Leaf Extract Mediated Green Synthesis of Active Iron Nanoparticles for the Removal of Cr(VI) and Antimicrobial Activities	Gurcharn Kaur, Irshad Mohiuddin, and Jatinder Singh Aulakh	24(2018) 833–837, Advanced Science letters https://doi.org/10.1166/asl.2018.10854	2018
19.	Fabrication of Pb(II) Selective Polymeric Membrane Electrode Based on 2,2' [Propane-1,3-Diylbis(Oxy)]Dibenzaldehyde as an Ionophore.	Karamjeet Kaur and Jatinder Singh Aulakh	Vol 9(2), 399 J Anal Bioanal Tech https://www.omicsonline.org/open-access/fabrication-of-pbii-selective-polymeric-membrane-electrode-based-on-228217propane13diylbisoxydibenzaldehyde-as-an-ionophore-j-anal-2155-9872-1000399-100268.html DOI: 10.4172/2155-9872.1000399	2018
20.	An approach on phytochemistry and pharmacological studies of Eucalyptus globulus plant parts	Kaur Gurcharn, Mohiuddin Irshad, Aulakh Jatinder Singh	5(4),(2017), 1-9, <i>Res. J. Material Sci.</i> , E-ISSN : 2320 – 6055	2017

21.	Phytochemical screening and biological potential of methanolic extract of <i>Oxalis corniculata</i> using different parts of plant	Kaur Sarabjit ,Kaur Gurcharn ,Singh Jatinder	7(7), 26-32. <i>Res.J.chem.sci.</i> , E-ISSN : 2231 - 606X	2017
22.	Lead(II)-selective Ionophore based electrochemical sensors - A mini review	Kaur Karamjeet ,Aulakh Jatinder Singh	7(7), 50-55. <i>Res.J.chem.sci.</i> , E-ISSN : 2231 - 606X	2017
23.	Role of molecularly imprinted polymers for selective determination of antiepileptic drug-carbamazepine: a short review.	Mohiuddin Irshad,Kaur Gurcharn ,Kumar Malik Ashok ,Singh Aulakh jatinder	7(6),26-30 <i>Res.J.chem.sci.</i> , E-ISSN : 2231 - 606X	2017
24.	Determination of endosulfan isomers and their metabolites in tap water and commercial samples using microextraction by packed sorbent and GC-MS	R Kaur, S Rani, AK Malik, JS Aulakh	37 (2014) 966-973,Journal of Separation Science, Impact Factor: 2.594	2014
25.	Microextraction by Packed Sorbent-High-Pressure Liquid Chromatographic-Ultra Violet Analysis of Endocrine Disruptor Pesticides in Various Matrices	M Kaur, S Rani, AK Malik, JS Aulakh	52(9) (2014) 977-984 Journal of Chromatographic Science Impact Factor: 1.026)	2014
26.	Separation of the phenoxy acid herbicides and their enantiomers by capillary zone electrophoresis in presence of highly sulphated cyclodextrins.	Jatinder Singh Aulakh, Ashok Kumar Malik AgnesFekete, Ph. Schmitt- Kopplin	JCCS, 56(6) (2009)163-1167(Impact Factor: 0.879)	2009
27.	Determination of Quats in beverages and urine samples by capillary zone electrophoresis	Jatinder Singh Aulakh, AgnesFekete, Ashok Kumar Malik, Ph. Schmitt- Kopplin, R.K. Mahajan.	<i>Annali Di Chimica</i> , 97(11-12) (2007) 1157-1167Impact Factor: 0.991)	2007
28.	Capillary electrophoretic-ultraviolet method for the separation and estimation of zineb, maneb, and ferbam in food samples	J.S. Aulakh, A. Fekete, A.K. Malik, R.K. Mahajan, P. Schmitt-Kopplin	1. (Impact Factor: 1.199) <i>Journal of AOAC International</i> , 90 (3) (2007) 834-837	2007
29.	A new approach for simultaneous determination of Co(II), Ni(II), Cu(II) and Pd(II) using 2-thiophenylaldehyde-3-thiosemicarbazone as reagent by solid phase microextraction-high performance liquid chromatography.	2. Varinder Kaur, Jatinder Singh Aulakh, Ashok Kumar Malik.	3. (Impact Factor: 4.387) <i>Analytica Chimica Acta</i> , 603 (1) (2007) 44-50.	2007
30.	Solid phase microextraction-high pressure liquid chromatographic determination of nabam, thiram and azamethiphos in water samples with UV detection. Preliminary data	Jatinder Singh Aulakh, A.K. Malik, R.K. Mahajan.	(Impact Factor: 3.794) <i>Talanta</i> , 66 (2005) 266-270.	2005
31.	A review on Solid Phase Microextraction-High	J.S. Aulakh, A.K. Malik, Varinder Kaur,	<i>Critical Reviews in Analytical Chemistry</i> , 35(1) (2005) 71-85. (Impact Factor: 2.892)	2005

	Performance Liquid Chromatography (SPME-HPLC) analysis of pesticides.	Philippe Schmitt-Kopplin.		
32.	Fourth derivative spectrophotometric determination of fungicide thiram (tetramethyl thiuram disulphide) in a commercial sample and grains using MIBK	Vaneet Kumar Sharma, Jatinder Singh Aulakh, Ashok Kumar Malik.	65(2) (2005) 375-379. <i>Talanta</i> , (Impact Factor: 3.794)	2005
33.	HPLC-UV determination of teramethylthiuram disulphide (Thiram) and thiourea in wheat grains and in a commercial Sample.	J.S. Aulakh, V.K. Sharma, R.K. Mahajan, A.K. Malik.	3(5) (2005) 751-757. <i>Electronic Journal of Environmental, Agricultural and Food Chemistry</i> ,	2005
34.	Derivative spectrophotometric determination of fungicide ziram (zinc (II) dimethyldithiocarbamate) in a commercial sample and grains using copper (II) sulphate.	Jatinder S. Aulakh, Vaneet K. Sharma, Sonam Bansal, Ashok K. Malik, Rakesh K. Mahajan.	<i>International Journal for Environmental and Analytical Chemistry</i> , 84 (2004) 1105-1110. (Impact Factor: 1.240)	2004
35.	Fourth derivative spectrophotometric determination of fungicide thiram (tetramethyl thiuram disulphide) in a commercial sample and grains using Copper (II) sulphate.	Vaneet Kumar Sharma, J.S. Aulakh, Ashok Kumar Malik.	<i>Electronic Journal of Environmental, Agricultural and Food Chemistry</i> , 2(5) (2003) 570-576.	2003
36.	Fourth derivative spectrophotometric determination of fungicide ferbam (iron (III)dimethyldithiocarbamate) in a commercial sample and grains using 2,2'-bipyridyl.	Ashok Kumar Malik, Jatinder Singh Aulakh, Sonam Bansal.	<i>Analytical and Bioanalytical Chemistry</i> , 375 (2003) 1250-1253. (Impact Factor: 3.78)	2003
37.	Thiram: Degradation, applications and analytical methods.	Vaneet Kumar Sharma, J.S.Aulakh, Ashok Kumar Malik.	<i>Journal of Environment Monitoring</i> , 5(5) (2003) 717-723. (Impact Factor: 2.085)	2003

Book Chapters

- 1) Contributed one chapter '**Capillary electrophoresis-UV analysis of organic pollutants**' to the book titled '**capillary electrophoresis: Methods and Protocols**', edited by Dr. Schmitt Kopplin, P. Published by Humana Press, USA. 2006.
ISBN: 978-58829-539-2, ISBN: 978-1-59745-376-9
Ashok Kumar Malik, **Jatinder Singh Aulakh**, Varinder Kaur.
- 2) Contributed one chapter '**Antidepressants: Pharmacology, Health Effects and Controversy**' to the book titled '**Antidepressants: Pharmacology, Health Effects and Controversy**', edited by Louis J. Migne and Jason W. Post, **Nova Science Publishers**, USA, 2012
ISBN: 978-58829-539-2, ISBN: 978-1-59745-376-9
Preetpal, S. Rani, A. K. Malik, **J. S. Aulakh**.

- 3) Following book chapters in book entitled “ Capillary Electrophoresis: Methods and Protocols”, ISBN 978-1-4939-6403-1, edited by **Schmitt-Kopplin**, Philippe, published by **Springer** 2016
- i. Capillary Electrophoretic Analysis of Classical Organic Pollutants (p407-435)
AK Malik, JS Aulakh, V Kaur
 - ii. Analysis of Small Ions with Capillary Electrophoresis (p197-216)
JS Aulakh, R Kaur, AK Malik
 - iii. Metal Ions Analysis with Capillary Zone Electrophoresis (p217-247)
AK Malik, JS Aulakh, V Kaur
- 4) Antidepressants: A Rising Tide of Concern
Irshad Mohiuddin, Ripneelkaur, Heena, Jatinder Singh Aulakh, and Ashok Kumar Malik
Book chapter in book entitled “ Antidepressants: Perspectives, Medical Uses and Health Implications”, ISBN :978-1-53610-398-4 published by **Nova Science Publisher, USA.** (2016)
- 5) Contributed book chapter (chapter- 1) ” Carbon Nanotubes for Clean Water” to book entitled “Carbon Nanotubes for a Green Environment -Balancing the Risks and Rewards” edited by Shrikaant Kulkarni, **and published by apple academic press**
Hard ISBN: 9781774638620
Gurcharn Kaur and Jatinder Singh Aulakh

<https://www.appleacademicpress.com/carbon-nanotubes-for-a-green-environment-balancing-the-risks-and-rewards/9781774638620>

- 6) Contributed book chapter (chapter- 13) entitled “ Study of carbon quantum dots as smart materials for environmental applications “ for “ Handbook of Nanomaterials for Sensing Applications” Edited by: Chaudhery Mustansar Hussain and Suresh Kumar Kailasa
ISBN: **978-0-12-820783-3**

Micro and Nano Technologies” 2021, Pages 223-239
<https://doi.org/10.1016/B978-0-12-820783-3.00019-1>
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- 7) Contributed book chapter “Nanostructure Impregnated MOFs for Photocatalytic and Sensing Applications” to book entitled “Synthesis and Applications of Semiconductor Nanostructures”, , Bentham Science Publishers (2023). edited by Dr. Karamjit Singh Dhaliwal Accepted
Author(s): Aman Grover, Irshad Mohiuddin, Shikha Bhogal, Ashok Kumar Malik and Jatinder Singh Aulakh
Pp: 122-143 (22)
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