

AMANDEEP KAUR

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EDUCATION

- 2023-Present** **Ph.D. Analytical Chemistry**
University of Louisville 40217, Kentucky, U.S.A
- 2017-2019** **MSc. Chemistry**
Khalsa College, Amritsar, Punjab, India.
- 2014-2017** **BSc. Non-Medical**
B.B.K.D.A.V College for Women, Amritsar, Punjab, India.
- 2014** **Intermediate**, Central Board of Secondary Education (C.B.S.E), India.
- 2012** **Matric**, Central Board of Secondary Education (C.B.S.E), India.

RESEARCH EXPERIENCE

Duration: December 2019 – November 2022

Lab: Nanotechnology Research Lab, BBK DAV College for Women, Amritsar.

Advisor: Dr. Poonam Khullar and Dr. Mandeep Singh Bakshi

Research Area: Synthesis and Characterization of Ag/Au nanoparticles using various surfactants.

Duration: May 2023- till present

Lab: Dr. Andrew Wilson's Lab, University of Louisville, KY, USA.

Advisor: Dr. Andrew Wilson

Research Area: Investigating the role of cations and water in electrocatalytic CO₂ reduction using Spectro-electrochemistry.

PUBLICATIONS

- **Colloidal Stabilization of Sodium Dilauraminocystine for Selective Nanoparticle- Nanoparticle Interactions: Their Screening and Extraction by Iron Oxide Magnetic Nanoparticles.** *Langmuir* **2021**, 37, 6588-6599.
DOI: [10.1021/acs.langmuir.1c00956](https://doi.org/10.1021/acs.langmuir.1c00956)
Amandeep kaur, Ravneet Kaur Sandhu, Poonam Khullar, Kultar Singh, Gurinder Kaur Ahluwalia, Mandeep Singh Bakshi
Received: April 7, 2021
Revised: May 9, 2021
Published: May 20, 2021
- **Solubilization of surfactant stabilized gold nanoparticles in oil-in-water and water-in- oil microemulsions.** *International Journal of Molecular Liquids* 336 (2021) 116305. <https://doi.org/10.1016/j.molliq.2021.116305>
Ravneet Kaur Sandhu, Amandeep Kaur, Prabhjot Kaur, Jaspreet Kaur Rajput, Poonam Khullar, Mandeep Singh Bakshi
Received: 15 February 2021
Revised: 19 April 2021
Accepted: 22 April 2021
Available online: 5 May 2021
- **Cyclodextrin-Functionalized Iron Oxide Nanoparticles for Efficient Extractors of Gold and Silver Nanoparticles from Water.** *ACS Sustainable Chem. Eng.* **2022**, 10, 50, 16903–16915. <https://doi.org/10.1021/acssuschemeng.2c05739>
Amandeep Kaur, Poonam Khullar. Mandeep Singh Bakshi
Received: 24 September 2022
Revised: 4 November 2022
Accepted: 2 December 2022
Available online: 19 December 2022
- **Directing the size and dispersity of silver nanoparticles with kudzu leaf extracts.** *RSC Adv.*, **2023**, 13, 25360-25368. DOI: [10.1039/D3RA03847E](https://doi.org/10.1039/D3RA03847E)
Jaley Faith Adkins, Amandeep Kaur, Md. Sofiul Alom, Haridas Chandran, Farshid Ramezanipour and Andrew J. Wilson
Received: 8th June 2023
Accepted: 3rd August 2023
First published: 23rd August 2023

- **Reducing Ensemble Averaging for Mechanistic Understanding of Electrocatalysis in Energy Conversion Reactions.** *J. Phys. Chem. C* **2024**, 128, 2, 697–709
<https://doi.org/10.1021/acs.jpcc.3c06615>

Johann V. Hemmer, Padmanabh B. Joshi, Amandeep Kaur, and Andrew J. Wilson

Received: 4 October 2023

Accepted: 15 December 2023

Published online: 5 January 2023

TEACHING EXPERIENCE

- Served as an Assistant Professor at BBK DAV College for Women, Amritsar, from July 18, 2019, to November 2022.
- I have been working as a Teaching Assistant at the Department of Chemistry at the University of Louisville, KY, USA, since 9 January 2023.

SEMINAR/CONFERENCE

- March 31st, 2018: National Seminar on “**Female Foeticide: A Social Menace**” organized by Khalsa College Amritsar
- March 30th, 2019: National Seminar on “**Recent Advances in Chemical Sciences (RACS-V)**”, organized by Dunningliff Chemical Society, Post Graduate Department of Chemistry, Khalsa College Amritsar.

OUTREACH ACTIVITIES

- August 2nd-3rd, 2019: Workshop on “**Synthesis and Characterization of Nanomaterials**” Conducted by Dr. Mandeep Singh Bakshi, Associate Professor, Department of Natural and Applied Sciences, University of Wisconsin- Green Bay, USA at BBK DAV College for Women, Amritsar
- January 25th, 2020: DBT Sponsored Workshop on “**Multidentate Schiff Base Ligand**”, held by Dr. Vimal Kumar, Assistant Professor, Department of Chemistry Dr. B.R. Ambedkar National Institute of Technology, Jalandhar
- October 25th, 2023: Visited Fairdale High School, Louisville, KY, USA, to teach students in Chemistry class how the size and composition of

nanoparticles influence their optical properties.

- February 2nd, 2024: Did outreach activity at Fairdale High School, Louisville, KY, USA of a poster presentation on directing size and dispersity of nanoparticles
- May 17th, 2024: Invited as a judge to judge the posters presented by high School students on the science fair at Fairdale High School, Louisville, KY, USA

POSTER/ PRESENTATIONS

- April 14, 2018: Presented Poster titled '**Effect of Solvent on the Chemistry of Nail polish**' at Annual Conference Khalsa College, Amritsar
- February 2, 2024: Presented Poster title **Directing size and dispersity of Nanoparticles** at Fairdale High School, Louisville, KY, USA
- March 7, 2024: Gave Seminar highlighting '**Mechanistic aspects of metal ions in solution for CO₂ electroreduction**' to the Department of Chemistry at the University of Louisville.
- March 28, 2024: Gave Oral presentation on '**Electrocatalytic CO₂ reduction using Spectro electrochemistry**' at the 17th Annual Graduate Student Council Regional Research Conference at the University of Louisville.
- March 28, 2024: Present poster on '**Investigating the role of cations and water concentrations in electrocatalytic CO₂ reduction using Spectro-electrochemistry**' at the 17th Annual Graduate Student Council Regional Research Conference at the University of Louisville. 'Awarded as best poster'.

PROJECTS

- I worked on the project entitled "Synthesis and Characterization of Biologically Significant 1,3,5-triazine Derivatives" while pursuing my M.Sc. in Chemistry (2018-2019).
- Colloidal Stabilization and Extraction of Gold and Silver Nanoparticles Using Cyclodextrin-Functionalized Iron Oxide and Sodium Dilauraminocystine Nanoparticles (2020-2022).
- Investigating the role of cations and different concentrations of water in electrocatalytic CO₂ reduction in non-aqueous media using Spectro-electrochemistry (2023- now).

TRAINING

- Project Training Program has been conducted in Rapture Biotechnology Company, Noida, in “Silico drug designing for Diabetes Mellitus type 2” from June 14th to July 14th, 2016.

OTHER ACHIEVEMENTS

- Rewarded as the best faculty in handling students, labs, and experiments.
- Cleared IELTS with overall eight bands.
- Awarded the poster presented at the 17th Annual GSCRRC titled ‘Investigating the role of cations and water concentrations in electrocatalytic CO₂ reduction using Spectro-electrochemistry’ is the best poster.
- **President, Chemistry Graduate Student Association (CGSA), University of Louisville (2024-25):** Leading the association to support the academic, professional, and social development of graduate students in the Chemistry department.

REFERENCES

Dr. Andrew J. Wison (Assistant Professor)

Department of Chemistry,
University of Louisville 40217, KY, USA
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Dr. Mandeep Singh Bakshi (Associate Professor)

Department of Chemistry, Natural and Applied Sciences,
University of Wisconsin - Green Bay
2420 Nicolet Drive, Green Bay, WI 54311-7001 USA
Tel: (+1) 920-465-5169 (Office) bakshim@uwgb.edu

Dr. Gurinder Kaur Ahluwalia (Instructor)

Nanotechnology Research Laboratory,
College of North Atlantic, Labrador City, NL A2V 2K7, Canada
Tel: 709-280-1583(Office) gur_01@yahoo.co.in

Dr. Poonam Khullar (Assistant Professor)

Head, Department of Chemistry,
B.B.K. D.A.V College for Women, Amritsar 143001, Punjab,
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