



Jyoti Sharma

Age: 26 years **Sex:** Female **Height:** 155 cm **Marital Status:** Unmarried

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ACADEMIC QUALIFICATIONS

Course	Discipline / Subjects	Institution / Board	Year of Passing	%age of Marks or CGPA
Ph.D.	Chemistry	Thapar Institute of Engineering & Technology	2020	-----
M.Sc.	Chemistry	Thapar Institute of Engineering & Technology	2016	7.5/10
B.Sc.	Biotechnology	Khalsa College, Patiala	2014	67
Intermediate	Science	CBSE	2011	71
High School	Science	CBSE	2009	77

PH.D. DETAILS

Title: Thermal Properties and Depth Profile Studies on Polymer-Polymer-Solvent Coatings

Supervisors: Dr. Raj Kumar Arya and Dr. Sanjeev Kumar Ahuja

M.Sc. Project work

Title: Synthesis of Mesoporous MgO Nanostructures for Enhanced Adsorption and Antimicrobial Application

Supervisor: Dr. Soumen Basu

PUBLICATIONS AND CONFERENCES

1. **Jyoti Sharma**, Raj Kumar Arya, and G.D.Verros, ‘A COMPREHENSIVE MODEL FOR THE DRYING OF GLASSY POLYMER COATINGS: THE LOW SOLVENT CONCENTRATION AREA, Progress in Organic Coatings, 135 (2019) 622-628.
2. **Jyoti Sharma**, Raj Kumar Arya, and G.D.Verros, ‘A Unified Model For The Drying Of Glassy Polymer Coatings, Progress in Organic Coatings, 134 (2019) 219-225.
3. **Jyoti Sharma**, Sanjeev Ahuja, Raj Kumar Arya, ‘Depth profile study of poly(styrene) – poly(methyl methacrylate) – tetrahydrofuran Coatings, Progress in Organic coatings, 134 (2019) 297-302.
4. **Jyoti Sharma**, Sanjeev Ahuja, Raj Kumar Arya, ‘Effect of molecular weight on residual solvent and other parameters in polymer-polymer-solvent coatings: Poly(Styrene)-poly(methyl methacrylate)-ethylbenzene system’, Progress in Organic coatings, 134 (2019) 119–125
5. **Jyoti Sharma**, Sanjeev Ahuja, Raj Kumar Arya, 2019, “Effect of Molecular Weight on Morphology and Thermal Properties of Poly(Styrene)-Poly(Methyl Methacrylate)-Ethylbenzene Coatings”, Progress in Organic Coatings, 132 (2019) 468-474.
6. **Jyoti Sharma**, Sanjeev Ahuja and Raj Kumar Arya, Experimental designing of polymer–polymer—solvent coatings: Poly (styrene)—poly (ethylene glycol)—chlorobenzene coatings, Progress in Organic Coatings, 128 (2019) 181-195.
7. **Jyoti Sharma**, Sanjeev Ahuja and Raj Kumar Arya, Drying induced phase separation in poly (styrene)—poly (ethylene glycol)—chlorobenzene system, Journal of Porous Materials, (2018) 1-15.
8. **Jyoti Sharma**, Raj Kumar Arya, Sanjeev Ahuja and Chitresh Kumar Bhargava, Residual solvent study in polymer– polymer—solvent coatings: Poly (styrene)—poly (methyl methacrylate)—tetrahydrofuran coatings, Progress in Organic Coatings, 113 (2017) 200-206.
9. **Jyoti Sharma**, Kshitij Tewari, and Raj Kumar Arya, Free volume theory of diffusion in polymer(s) – solvent(s) system – a review, Progress in Organic Coatings, 111 (2017) 83-92.
10. **Jyoti Sharma**, Manisha Sharma, and Soumen Basu, ‘Synthesis of mesoporous MgO nanostructures using mixed surfactants template for enhanced adsorption and

- antimicrobial activity' Journal of Environmental Chemical Engineering 5 (2017) 3429–3438
11. Anubhav Prashar, **Jyoti Sharma**, Sanjeev Ahuja, Avinash Chandra, Raj Kumar Arya, 2019, “Quaternary Polymeric Coating An Alternative to Minimize the Use of Single Solvent: Poly(methyl methacrylate) – Ethylbenzene – Toluene – Acetone System”, Progress in Organic Coatings, Accepted on 12 March 2019.
 12. Anubhav Parashar, **Jyoti Sharma**, Sanjeev Ahuja and Raj Kumar Arya, Quaternary polymeric coating as an alternative to minimize the use of costly solvents in binary coatings, Progress in Organic Coatings, 127 (2019) 319-329.
 13. Ishita Sharma, **Jyoti Sharma**, Sanjeev Ahuja, and Raj Kumar Arya, 2018, Optimization of sodium dodecyl sulphate loading in poly (vinyl alcohol)-water coatings, Progress in Organic Coatings, 127 (2019) 401-407.
 14. Daisy Sharma, **Jyoti Sharma**, Raj Kumar Arya, Sanjeev Ahuja and Shekhar Agnihotri, Surfactant enhanced drying of waterbased poly(vinyl alcohol) coatings, Progress in Organic Coatings, 125 (2018) 443-452.
 15. Aman Pathania, **Jyoti Sharma**, Raj Kumar Arya, and Sanjeev Ahuja, Effect of crosslinked polymer content on drying of binary polymer—solvent coatings, Progress in Organic Coatings, 114 (2018) 78–89.
 16. Harleen Kaur, **Jyoti Sharma**, Divyansh Jindal, Raj Kumar Arya, Sanjeev Ahuja and Shashi Bhushan Arya, Crosslinked polymer doped binary coatings for corrosion protection, Progress in Organic Coatings, 125 (2018) 32–39.

Book Chapters Published:

Book Title. Polymer Coatings: Technologies and Applications

Publisher: Taylor & Francis

Chapter 1. Introduction to polymeric Coatings

Chapter 2. Polymer Coatings Methods

Chapter 5. Morphology of Polymeric Coatings

Chapter 6. Spectroscopic Analysis of Polymer Coatings

Invited Talk

1. **Jyoti Sharma**, and Raj Kumar Arya “Residual solvent study in polymer– polymer— solvent coatings: poly (styrene)—poly (ethylene glycol)—chlorobenzene coatings” in 8TH PACT National workshop, HBTU Kanpur, 2018.
2. **Jyoti Sharma**, Sanjeev Ahuja, and Raj Kumar Arya, 2018, “Effect of Molecular Weight on Residual Solvent in Poly(Styrene)-Poly(Methyl Methacrylate)-Ethylbenzene Coatings”. CHEMCON 2018, Dec 27 – 30, Dr. B. R. Ambedkar NIT, Jalandhar, Punjab, India.

International conference held in India

1. **Jyoti Sharma**, Manisha Sharma, and Soumen Basu, 2016, “Synthesis of mesoporous Mgo nanostructures for enhanced adsorption and antimicrobial application” in Harnessing Engineering, Technology & Innovation for Sustainable Growth (*HETIS-2016*), in Panjab University Chandigarh, Punjab.

Workshops Attended

1. Participated in ‘Global initiative for academic networks’ from August 06-10, 2018 in Panjab University, Chandigarh.
2. Participated in joint workshop on ‘Recent advancement in thermal analysis techniques (DSC, TGA, DTA, STA, TMA), 15th September 2018 at IIT Delhi.
3. Participated in IPRS (Intellectual Property Rights) Awareness workshop on 27-01-2012 at Khalsa College, Patiala.

Symposium Attended

1. 2016, National Symposium on “Application of Radioisotopes and Radiation Technology In Industry , Healthcare and Agriculture”, November 28 – 29, Organized by Department of Chemical Engineering, Thapar University, Patiala, India.

EXTRA-CURRICULAR ACTIVITIES

1. Best Volunteer in Red Cross in the academic session 2012-2013 at Khalsa College, Patiala.

2. Participated in Ballet in English Literature Society Festival 2012-2013 at Khalsa College, Patiala.

SOFTWARE SKILLS

Origin 8, ImageJ, Calisto

EXPERIMENTAL TECHNIQUES

Confocal Raman Spectroscopy, SEM Analysis, D.S.C. Analysis

REFERENCES

1. Dr. Raj Kumar Arya, (Ph.D Supervisor)
Associate professor
Department of Chemical Engineering
NIT, Jalandhar-144011, Panjab
Email: rajaryache@gmail.com , aryark@nitj.ac.in
2. Dr. Sanjeev Kumar Ahuja, (Ph.D Supervisor)
Associate professor
Department of Chemical Engineering
T.I.E.T, Patiala-147004, Punjab
Email: skahuja@thapar.edu
3. Dr. Soumen Basu
Associate professor
School of Chemistry and Biochemistry
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Date: 31-12-2020

Place: New Delhi

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