RESUME

Dr. Sampat Singh Chauhan, D.O.B: 10-04-1985, Gender: Male
Education: MSc, MTech, PhD [DMSE, IIT-DELHI**]**
Currently Working: Bhaskaracharya College of Applied Sciences, DU
Specialization: Chemistry, Polymer Science
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OBJECTIVE

To obtain a position in an organization where I can utilize my potential and enhance my skills to meet goal of organization with full integrity and enthusiasm in the field of chemistry and materials research and teaching.

ACADEMIC QUALIFICATIONS

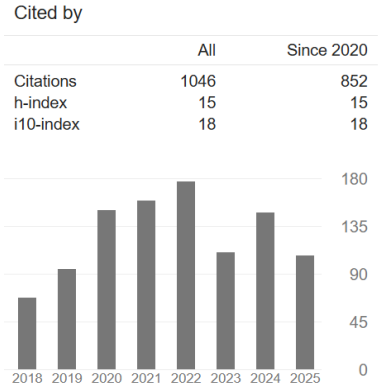
Ph.D in Material Chemistry (Awarded) [CGPA: 10 out of 10, 2012-18]
Institution: DMSE, IIT Delhi.
Supervisors: Prof. Veena Choudhary and Prof. Josemon Jacob
Ph.D Thesis Title: *"Studies on High Performance Composites based on Poly(ether ketone) for Electromagnetic interference shielding Applications"*

M.Tech in Polymer Science [CGPA: 8 out of 10**,** 2010-12**]**
Institution: CPSE, IIT Delhi
Dissertation Title: *"Studies on toughening of Polystyrene using SEBS as impact modifier"*

M.Sc in Chemistry [CGPA: 8.5 out of 10**,** 2008-10**]**
Institution: Jamia Hamdard University (Delhi)
B.Sc [65.7 %, 2005-2008]
Institution: Maharajas' college Jaipur, University of Rajasthan

GOOGLE SCHOLAR AND SCOPUS INDEX PROFILE

Google Scholar:
https://scholar.google.com/citations?hl=en&user=w9kI6d0AAAAJ
Total Research Paper**: 20** Scopus Indexed:**19,**
No. of Citations**:1046**
h index:**15**
i-10 index:**18**
Total impact:**90**



SCHOLISTIC ACHIEVEMENTS

S.No	Name of Certificate/fellowship	Awarding Agency	Year
1.	CSIR(JRF) AIR-05	CSIR	Dec.2010
2.	CSIR(NET) AIR-20	CSIR	Dec.2009
3.	CSIR(JRF) AIR-30	CSIR	June 2011
4.	CSIR(JRF) AIR-55	CSIR	Dec. 2011
5.	CSIR(JRF) AIR-82	CSIR	June.2010
6.	GATE AIR-37	MHRD	2010

TEACHING EXPERIENCE-8 YEARS

University of Delhi (Bhaskaracharya College)	26-July-2018-Till date (Oct 2025)

- **Courses taught:** Undergraduate: 07 (5-Physical Chemistry, 1-Generic elective courses, 2 Discipline Specific Elective)

1. Quantum Chemistry
2. Chemical Kinetics
3. Thermodynamics
4. States of Matter (Gaseous, Liquid and Solid State)
5. Polymer Chemistry
6. Analytical Chemistry
7. Chemistry of s, p block elements
8. Organometallics

- **Industry experience:** Worked at Gharda Polymers Ltd Mumbai during PhD project

REVIEWER EXPERIENCE

Reviewer of Polymer Plastic Technology and Materials; Routledge Custom Publishing (Taylor and Francis group)
Reviewer of Journal of Nanocomposites Hindawi Publications

ADMINISTRATIVE WORK

Member of NAAC Core Team 2023-24 [Criteria-6]
Member of NIRF Core Team 2023-24
Member of AQAR Team 2021-24[Criteria-4, Criteria-6, Extended template, Criteria-7]
Department Admission Committee [2018-24]

TECHNICAL SKILLS

Polymer Processing: Proficiency in Extrusion, Compression Molding, Injection Molding, Micro-compounder and Micro- injection Molding.

Polymer Testing: Hands-on experience in Capillary Rheometer, Parallel Plate Rheometer, Dynamic Mechanical Analyser, Universal Testing Machine, Impact Tester, Melt Flow Index, Infra-red Spectroscopy, Vector Network Analyser

Characterization Techniques: Expertise in analyzing Differential Scanning Calorimetry, Thermo-gravimetric Analysis, Scanning Electron Microscopy, Transmission Electron Microscopy.

Computer Skill: MS Office, Origin, Image J, End Note, Origin, and Proficiency in presentations, Research paper writing, Project conception and implementation.

PUBLICATIONS

1. **Sampat Singh Chauhan**, Mathew Abraham and Veena Choudhary. Electromagnetic shielding and mechanical properties of thermally stable poly (ether ketone)/MWCNT composites prepared using twin screw extruder equipped with fractional mixing elements. *RSC Advances 2016; 6: 113781-113790*. **[Impact factor-3.9]**
2. **Sampat Singh Chauhan**, Mathew Abraham and Veena Choudhary. Superior EMI shielding performance of thermally stable carbon nanofiber/poly (ether-ketone) Composites in 26.5–40 GHz frequency range. *Journal of Materials Science 2016; 51(21): 9705 -15*. **[impact factor**:**4.0]**
3. **Sampat Singh Chauhan**, Bhanu. P. Singh, Pawan Verma, Rajender. S. Malik and Veena Choudhary. Detailed dynamic mechanical analysis of thermos-mechanically stable melt-processed PEK-MWCNT nanocomposites. *Polymer Composites-2016; Doi:10.1002/pc.24247*. **[impact factor-4.8]**
4. **Sampat Singh Chauhan,** Meenakshi Verma, Pawan Verma, Vishwa. P. Singh, Pawan Verma and Veena Choudhary. Multi-walled carbon nanotubes reinforced poly(ether-ketone) nanocomposites: Assessment of rheological, mechanical, and electromagnetic shielding properties. *Polymer for Advanced Technologies-2017; 29: 347-54*. **[impact factor-3.4]**
5. **Sampat Singh Chauhan,** Pawan Verma, Rajender Singh Malik, and Veena Choudhary Thermo-mechanically stable dielectric composites based on poly(ether-ketone) and $BaTiO_3$ with improved electromagnetic shielding properties in 8.2-12.4 GHz*" Journal of applied Polymer Science-2018; 135: 46413.* **[impact factor-3]**
6. Meenakshi Verma, **Sampat Singh Chauhan,** S.K Dhawan and Veena Choudhary. Graphene/Carbon nanotubes/Polyurethane Composites as Efficient Shield against Electromagnetic Polluting Radiations. *Composites Part B 2017; 120:118-127*. **[impact factor- 12.7]**
7. Sushant Sharma, Bhanu Pratap Singh, **Sampat Singh Chauhan**, Jeevan Jyoti, Abhishek Kr. Arya, S. R. Dhakate, et al. Enhanced Thermo-mechanical and Electrical Properties of Multiwalled Carbon Nanotube Paper Reinforced Epoxy Laminar Composites. *Composite Part A-2017; 104:129-38.* **[impact factor-8.1]**
8. Rajender Singh Malik, Udit Soni, **Sampat Singh Chauhan**, Pawan Verma and Veena Choudhary. Development of functionalized quantum dot modified poly (vinyl alcohol) membranes for fuel cell applications. *RSC Advances 2016; 6: 47536-47544* **[impact factor- 3.9]**
9. Arun Kumar, Ram Kishor Anant, Kaushal Kumar, **Sampat Singh Chauhan**, Sudhir Kumar, and Ravindra Kumar. Anticorrosive and electromagnetic shielding response of a graphene/TiO_2–epoxy nanocomposites with enhanced mechanical properties. *RSC Advances 2016; 6:113405–113414.* **[impact factor-3.9]**
10. Pawan Verma, Meenakshi Verma, Anju Gupta, **Sampat Singh Chauhan**, Rajender Singh Malik, and Veena Choudhary. Multi walled carbon nanotubes induced viscoelastic response of polypropylene copolymer nanocomposites: Effect of filler loading on rheological percolation. *Polymer Testing 2016; 55:1-9.* **[impact factor-5.0]**
11. Pawan Verma, Anuj Kumar, **Sampat Singh Chauhan**, Rajender Singh Malik, and Veena Choudhary. Industrially viable technique for the preparation of high loading HDPE/Fly ash composites: Thermal, mechanical, and rheological interpretations. *Journal of Applied Polymer science-2017; 135:45995.* **[impact factor-3]**

12. Pradeep Sambyal, S.K Dhawan, Preeti Gairola, **Sampat Singh Chauhan**, S.P Gairola. Synergistic effect of polypyrrole/BST/RGO/Fe_3O_4 composite for enhanced microwave absorption and EMI shielding in X-Band. *Current Applied Physics 2018; 18: 611-18*. **[impact factor-2.4]**
13. Priyanka Singh, **Sampat Singh Chauhan**, Gurmeet Singh, and M.A Qureshi. Corrosion Inhibition by Green Synthesized Inhibitor: 4,4′-(1,4Phenylene)bis(6-amino-3-methyl-2,4dihydropyrano[2,3-*c*]pyrazole-5 carbonitrile) for Mild Steel in 0.5 M H_2SO_4 Solution. *Journal of Bio - and Tribo-Corrosion. DOI: 10.1007/s40735-018-0204-6* **[impact factor-3.51]**
14. Priyanka Singh, D.S.Chauhan, **Sampat Singh Chauhan,** G.Singh. Chemically modified expired Dapsone drug as environmentally benign corrosion inhibitor for mild steel in sulphuric acid useful for industrial pickling process. *Journal of Molecular Liquids 2019; 286:110903.* **[impact factor-10.3]**
15. Priyanka Singh and **Sampat Singh Chauhan** Anticorrosion and EMI shielding behavior of candle soot-based epoxy admixtures. *Journal of Applied Polymer Science; 137 (19), 48678* **[impact factor-3.0]**
16. Priyanka Singh, D.S.Chauhan, **Sampat Singh Chauhan,** G. Singh, M.A.Quraishi**:** Bioinspired synergistic formulation from dihydropyrimdinones and iodide ions for corrosion inhibition of carbon steel in sulphuric acid. *Journal of Molecular Liquids 2020; 298:112051*. **[impact factor-10.3]**
17. Verma, P., Bansala, T, **Sampat Singh Chauhan,** Kumar, D., Deveci, S., & Kumar, S. (2021). Electromagnetic interference shielding performance of carbon nanostructure reinforced, 3D printed polymer composites. *Journal of Materials Science (2021): 1-20.* **[Impact factor:4.0]**
18. Singh, P**, Sampat Singh Chauhan,** Tripathy, S. S., Singh, V. P., & Quraishi, M. A. (2020, May). Electrochemical corrosion inhibition investigations of mild steel in 1 M HCl solution. *In AIP Conference Proceedings (Vol. 2220, No. 1, p. 090002). AIP Publishing LLC.* **[Impact Factor-0.31]**
19. Priyanka Singh, D.S.Chauhan, **Sampat Singh Chauhan,** M.A.Quraishi**:** Synergistic Effect of Iodide Ion and N-methyl N, N, N trioctylammonium Chloride on Corrosion Inhibition of Carbon Steel in 0.5 M H2SO4: Experimental and Computational Approach. *Chemistry Select 6.41 (2021):11417-11430.* **[Impact Factor:1.9]**
20. Rajender Singh Malik, Udit Soni, **Sampat Singh Chauhan**, Devendra Kumar, Veena Choudhary Semi-interpenetrating polymer networks of poly (vinyl alcohol)-functionalized nanocrystals/sulfonated poly (ether ether ketone) (PVAFNCs/ SPEEK) as fuel cell membrane. *Materials Today Communications, 29, 102897.* **[Impact Factor:3.7]**

CONFERENCE ORGANIZED

"Clean & Green Energy: The Chemical and Environmental Aspects" [Member of organizing committee]

CONFERENCES/WORKSHOPS PARTICIPATED

1.**Sampat Singh Chauhan,** Mathew Abraham, and Veena Choudhary. Effect of barium titanate [$BaTiO_3$] on dielectric and mechanical behavior of poly (ether ketone) (PEK). National symposium on Innovations in Composites for General Purpose to High end Applications, NSICHA 2015, GGSIP University, Dwarka, Delhi

2. Sampat Singh Chauhan, Mathew Abraham, and Veena Choudhary. Poly(ether-ketone)/MWCNT composites with ultra-high thermal stability for superior electromagnetic shielding in 26.5-40 GHz. International Conference on Material science and Technology,

ICMTECH 2016, University of Delhi.

3. **Sampat Singh Chauhan**, Mathew Abraham, and Veena Choudhary. Effect of Multiwalled carbon nanotubes (MWCNT) on performance properties of poly(ether ketone) (PEK). National Conference on Carbon Materials NCCM 2015, CSIR NPL, Delhi

4. **Sampat Singh Chauhan** and Veena Choudhary. Thermally stable poly(ether-ketone)/MWCNT nanocomposites as efficient electromagnetic shielding material with improved mechanical properties. Macro-2017 Trivandrum Kerela

Any other information

I have started my research career as a PhD student at Center for Polymer Science and Engineering now renamed as Department of Materials Science and Engineering, Indian Institute of Technology, Delhi, India. My doctoral research work mainly focused on the development of high performance conducting polymer composites (CPCs) and dielectric polymer composites (DPCs) based on poly(ether ketone) for demanding electromagnetic interference shielding applications like aerospace applications where in addition to EMI shielding thermally stability and mechanical strength are also prime requisite. During the research work we emerged with balanced level of properties of PEK nanocomposites along with absorption dominant EMI shielding which enhances the suitability of the material in application like stealth technology which is a sub discipline of military tactis which is used in aircrafts and submarines to make them less visible to radar. In addition to this, I gained considerable research skills during my M.Tech while working on poly(styrene). I also worked on other systems like fuel cell membranes based on PEEK, anticorrosive and EMI shielding properties of epoxy/graphene composites and PP/CNT, PU/GCNT based nanocomposites. I have published **20 research papers** during my PhD program and teaching career at Bhaskaracharya College of Applied Sciences. My publications have attracted over **1048 citations** (from 2012–2024) and I have a **H–index of 15, i-10 index of 18 with total impact factor of 90.**

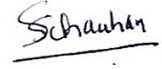
WORK IN PIPER LINE

1. BOOK on physical chemistry for Semester-1 and Semester-2 as per NEP Syllabus [Thermodynamics, Gaseous State and Liquid state]
2. Project written in hand
   - STUDIES ON FABRICATION AND CHARACTERIZATION OF FIRE-RETARDANT BAMBOO COMPOSITES: A TRADITIONAL HOME CONSTRUCTION MATERIAL IN ARUNACHAL PRADESH [Status: Submitted for IKS but not accepted]
   - Development of high-performance light-weight hybrid multilayer composites based on UHMWPE/Kevlar/CNTs for soft body armor applications

REFERENCES

Name	Designation	Institute	Email	Tel. no.
Prof. Veena Chaudhary	Emeritus Professor	IIT Delhi	veenach@hotmail.com	9810028839
Prof. Balaram Pani	Dean of colleges	DU	balarampani63@gmail.com	9654066364
Prof. Gurmeet Singh	Vice Chancellor	Pond. Univ	gurmeet123@gmail.com	9810390640

I declare that the information given above is true to the best of my knowledge and belief and nothing has been hidden.



[Dr. Sampat Singh Chauhan]