



Prof. Deepak Pant

Professor

**Contact
Details:**

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Academic Qualification:	Class	Board/ University	Year	Subject
	High School (Class X)		U.P. Board	1992
	Intermediate (Class XII)	U.P. Board	1994	English, Hindi, Maths, Physics, Chemistry
	B. Sc.	Kumaun University Nainital	1997	Physics, Chemistry, Maths
	M. Sc.	Kumaun University Nainital	1999	Organic Chemistry
	Ph. D.	Kumaun University Nainital	2002	Coordination Polymers
Positions Held:	Name and address of the employer	Designation	Period	
			From	To
	Krishna College, Bijnor	Assistant Professor	Feb 2003	May 2007
	Dolphin PG Institute, Dehradun	Associate Professor	June 2007	Feb 2012
	Central University of Himachal Pradesh	Associate Professor	March 2012	March 2015
	Central University of Himachal Pradesh	Professor	March 2015	July 2018
	Central University of Haryana	Professor	August 2018	July 2021
	Central University of Himachal Pradesh	Professor	July 2021	Continue

Specialisation : Chemical- Biological merger; Detoxification

Research Interest:

Solid waste management, Microbial remediation of pollutants (Hybrid methods), Management engineering, detoxification, green chemistry

Publications: List of Publications

Patent Process		
Name	Date of Filing	Reference Number
1. Novel Product Selective Degradation Reactor	09-06-10	926/Del/2012; Published 09/12/2016
2. A process for production of Anti Fungal Solution from CD waste	16-06-10	127/DEL/2011 Published 30/08/2013 Patent Number :284026
3. Activation of Inorganic Oxide Containing Materials	19-09-12	2911/DEL/2012 Published 03/06/2016 Patent Number :293459
4. Column Reactor for the Synthesis of Cyclic Carbonate of Polyols <i>via</i> Carbamide Process	22- 12-2011	1499/DEL/2015 Patent Number :315898
5. Reactor to separate polycarbonate and thin film layer (aluminum layer) from waste optical disc	Filled	

Name of the Research Article	Type of Article	Journal (with reference number)	ISSN Number	Impact Factor (I. F.)
Single Author (Pant D)				
6. Waste Glass as a Material in Thin Layer chromatography	Original Research	Waste Management (Elsevier Science) 29, 2040, 2009 (International)	0956-053X	5.43
7. E waste Projection using Life Span and Population Statistics	Original research	Int J Life Cycle Assessment 18, 1465–1469 (2013)	1614-7502	3.14
8. A new role of alumina in polyethylene	Original Research	J. Sc. Ind Res.(NISCAIR) 64, 967, 2005	0022-4456	0.508

degradation: A step towards commercial Polyethylene recycling		(International)		
9. Degradation of various low density polyethylene products on alumina surface with sulphuric acid—DTS technique	Original Research	J. Solid Waste TechManagement, Vol. 37 (1), 47, 2011 (International)	1088-1697	0.4
10. A Review of Electronic waste Management Microbial Participation: A Green Technology	Review	Int. J. Environment and Waste Management (IJEWM) Vol. 13, No. 1, 2014, 23-36	0734-242X	0.7
11. Use of Waste Glass in the Degradation of Waste Polyolefin	Original Research	Journal of Solid Waste Tech Management, 345 (9) 2009. (International)	1088-1697	0.4
12. Waste Management in Small Hospitals Trouble for Environment	Original Research	Environmental Monitoring and Assessment (2012) 184, 4449-4453	0197-5897	1.46
13. Sulphate pollution on ground water by sugar mill,	Original Research	Him. J. Env. Sc., 13,20, 2006.	0970-2903	
14. Mathematical Equation for Product Selection in Degradation of Plastic and Crude Oil	Original Research	International Journal of Innovation in Science and Mathematics (IJISM) 2347-9051	3(4), 2015, 195-96	
15. Polycarbonate Waste Management using Glycerol		Process Safety and Environmental Protection 100, 281-287 (2016)	doi:10.1016/j.psep.2015.12.012 ISSN 0957-5820	4.38
16. Green Recycling of waste Optical Disc to Urethane Products		J. Sc. Ind Res.(NISCAIR) 75, 322-327 (2016)		0.5
17. Environmental Issues in Biomedical Waste (BMW) Autoclave		J. Sc. Ind Res.(NISCAIR) 77, 661-63 (2018)		0.5

Industry				
Multiple Authors				
18. Some trivalent and tetravalent metal and non-metal compounds of 2-Hydroxy-1 Naphthoic Acid Pandey H, Joshi D, Pant D. and Chandra M	Original research	Chem. Environ. Res. 10, 227 (2001).	0972-0626	0.29 2
19. Trivalent and Tetravalent metal / Non -Metal Derivatives of N- (2-Methyl) Phenylglycine., Joshi D, Pant D. and Chandra M	Original research	Chinese journal of inorganic Chemistry CHINA Vol. 20, No.42004.	1001-4861 (UGC 18441)	0.5
20. Degradation of Amoxicilline by Trichospourm beideli: A Green Chemistry Approach Pant D, Sharma A, Garg N and Pant S	Original Research	Univ. J.Phy-Chem & Ayurvedicn Heights 2,17, 2009	0973-3507	
21. Management of Waste Poly Vinyl Chloride (PVC) through Chemical Modification Pant D; Singh R	Review	J Sc Ind Res, Vol. 71, March 2012, pp. 181-186	0022-4456	0.50 8
22. Chemical and biological Extraction of Metals Present in E waste: A Hybrid Technology Pant D, Joshi D, Upreti M. K., Kotnala R K	Review	Waste Management 2012 (Elsevier Science) 32 (2012) 979–990	doi:10.1016/j.wasman.2011.12.002	5.43
23. Gaschromatography/mass spectrometry analysis of degradation of	Original research	Journal of Natural Sciences Research Vol.3, No.1, 27 -34,	ISSN 2224-3186 (Paper) ISSN 2225-	

ethylacetoacetate achieved in shake flask culture using a previously characterized yeast strain <i>Tichosporon dermatis</i> . <i>Mohammad Asrar Izhari, A B Bhatt, Shailja Pant, Deepak Pant, Salahuddin Ansari</i>		2013	0921 (Online	
24. Chemical modification of waste glass from cathode ray tubes (CRTs) as low cost adsorbent Pant D; Singh P	Original Research	Journal of Environmental Chemical Engineering	1 (2013) 226-232; ISSN 2213-3437	
25. Pollution due to hazardous glass waste Pant D; Singh P	Review	Environ Sci Pollut Res	21(4), 2014, 2414-2436 ISSN 1614-7499	2.7
26. Metal Leaching from Cathode Ray Tube Waste using Combination of <i>Serratia plymuthica</i> and EDTA Pant D; Singh P, Uprati M	Original Research	Hydrometallurgy	146 (2014) 89–95 ISSN 0304-386X	2.68
27. Green Chemical Modification: An Ecofriendly Way To Material Management Pant D; Kumar S	Original Research	Ind. J. Sci. Res. and Tech (2321-9262)	2(2), 58-61, 2014	
28. Inquisitive Microbiological Analysis of Pharmaceutical Effluents and Screening for a Potential Strain Capable of Utilizing Acetaminophen and Ethylacetoacetate as Sole Carbon and Energy Source <i>Asrar Izhari, A B Bhatt, Shailja Pant, Deepak Pant,</i>	Original Research	Advanced Science, Engineering and Medicine	Volume 5, Number 10, October 2013 , pp. 1030-1034(5)	

29. WASTE-TO-WASTE MANAGEMENT AND RESOURCE CONSERVATION AND RECYCLING Singh P; Pant D	Original Research	Environmental engineering and management journal	May 2018, Vol.17, No. 5, 1103-1111	1.28
30. Involvement of Metal Complexes in Carbon Management Giri A; Pant D	Original Research	Journal of Agroecology and Natural Resource Management (2394-0786)	2(1), (2015) 18-21	
31. Management of Hazardous glass waste Singh P; Pant D	Original Research	J. Basic Applied Engineering research (2350-0077)	2(3), (2015) 224-26	
32. Metal Resources from Spent Lithium Ion Batteries Dohlker T, Pant D	Original Research	J. Basic Applied Engineering research (2350-0077)	2(3), (2015) 227-29	
33. Weed Plans for Heavy Metal Management Sharma V, Pant D	Original Research	Journal of Agroecology and Natural Resource Management (2394-0786)	2(1), (2015) 14-17	
34. Pb detoxification in Equisetum diffusum Pant D, Sharma V, Singh P	Original Research	Toxicology Reports (Elsevier) 2214-7500	2, 716–720 (2015)	1.02
35. Polyvinyl chloride degradation by hybrid (chemical and biological) modification Singh R, Pant D	Original Research	Polymer Degradation and Stability (Elsevier)	123, 80-87 (2016)	3.9
36. Biocompatibility of synthetic and bio-material fusion	Original Research	Current Science	112, 25, 2017	1.0
37. Perturbations and 3R in carbon management	Original Research	Environmental Science and Pollution Research February 2017, Volume 24, Issue 5, pp 4413–	doi:10.1007/s11356-016-8143-6	2.76

D Pant, V Sharma, P Singh, M Kumar, A Giri, M P Singh		4432		
38. Green and Facile Method for the Recovery of Spent Lithium Nickel Manganese Cobalt Oxide (NMC) Based Lithium Ion Batteries	T Dolhker, Deepak Pant	Waste Management · Volume 60, February 2017, Pages 689-695 (Elsevier)	DOI: 10.1016/j.wasman.2016.09.039	5.43
39. Poly Vinyl Chloride Waste Projection using Life Expectancy of Products	Ritu Singh, Deepak Pant	Journal of Scientific & Industrial Research	Vol. 76, October 2017, pp. 666-669	0.7
40. Recovery of gold from electronic waste using chemical assisted microbial biosorption (hybrid) technique	A Sheel, Deepak Pant	Bioresource Technology (18732976) (Elsevier)	Volume 247, January 2018, Pages 1189-1192	5.807
41. Structural basis for expanding the application of bioligand in metal bioremediation: A review	V Sharma, Deepak Pant	Bioresource Technology (Elsevier)	Volume 252, March 2018, Pages 188-197	5.807
42. Inhalation dose due to Rn-222, Rn-220 and their progeny in indoor environments	A Giri, Deepak Pant	Appl Radiat Isot. (Elsevier) 2018 ;132:116-121	2018 ;132:116-121	1.12
43. Biocompatible metal decontamination from soil using Ageratum conyzoides	V Sharma, Deepak Pant	Environmental Science and Pollution research	August 2018, Volume 25, Issue 22, pp 22294–22307	2.9
44. Bio-inspired Dechlorination of	Ritu Singh,	Chemical Engineering Research and Design	Volume 132, April 2018,	3.07

Poly vinyl chloride	Deepak Pant	(Elsevier) https://doi.org/10.1016/j.cherd.2018.01.043	Pages 505-517	
45. Intracellular carbonic anhydrase from <i>Citrobacter freundii</i> and its role in bio-sequestration	Anand Giri , Uttam Chand Banerjee , Manoj Kumar , Deepak Pant	Bioresource Technology https://doi.org/10.1016/j.biortech.2018.07.089	Volume 267, November 2018, Pages 789-792	5.807
46. Chemical-biological hybrid systems for the metal recovery from waste lithium ion battery	Dohlker T, Pant D	Journal of Environmental Management	Volume 248, 15 October 2019, 109270	4.865
47. CO2 management using carbonic anhydrase producing microbes from western Indian Himalaya	Anand Giri , Deepak Pant	Bioresource Technology Reports	Volume 8, December 2019, 100320	
48. Carbonic anhydrase modification for carbon management	Anand Giri , Deepak Pant	Environmental Science and Pollution Research	2020 Jan;27(2):1294-1318	3.1
49. Microbial lipolytic enzymes e promising energy-efficient biocatalysts in bioremediation	Ashok Kumar, , Renata Gudiukaite, Alisa Gricajeva , Mikas Sadauskas, Vilius Malunaviciu , Hesam Kamyab , Swati Sharma , Tanvi Sharma , Deepak Pant	Energy	192 (2020) 116674	4.1
Recent developments in pretreatment technologies on lignocellulosic biomass: effect of key	Shashi KantBhatia , Sujit Sadashiv Jagtap , Ashwini AshokBed	Bioresource Technology	Volume 300, March 2020, 122724	6.6

parameters, technological improvements, and challenges	ekar, Ravi KantBhatia , Anil KumarPatel , DeepakPant			
Human health and snails.	Dhiman V, Pant D.	Journal of Immunoassay and Immunochemistry.	2020 Nov 25:1-25.	0.873
Environmental Biomonitoring by Snails.	Dhiman V, Pant D.	Biomarkers	2021 Jan 7:1-59.	2.016
Communicated				
1. Soil Environment and Heavy Metal Pollution from Biomedical Waste (BMW) 2. Chemical /Biological enzyme modification for carbon sequestration				

Research Projects Completed/Ongoing:

Research Projects

- 1. Completed Project: Utilization of glass waste for the degradation of waste plastic:** funded by Uttarakhand council of science and technology (Grant No. UCS&T/ R&D/ CHEM-07-08/ 1847/1).
- Extraction of metals from waste lithium battery, Department of Biotechnology (DBT).
- Green chemical recycling of polycarbonate plastic for the synthesis of valuable chemicals and epoxy compounds, SERB-DST New Delhi.
- Chemical and Biological Extraction of metals from E waste, State Biotechnology Program Govt. of Uttarakhand .
- Study on Natural Radiation Level in Lesser Himalayan Zone on the southern slopes of the Dhauladhar Range, Bhabha Atomic Research Centre, BRNS Mumbai
- Development of value added products from waste plastics, **H P State Council for Science, Technology & Environment (SCSTE).**

Ongoing Research Project:

Utilization of biomass ash from Starwire India Vidyut Pvt. Ltd, Mahendragarh (Consultancy Project) Starwire India Vidyut Pvt. Ltd, Mahendragarh

M.Phil. Supervised:

- To study the various industrial wastes produced in Bijnor region; their toxic effects and the possible mode of their treatment** Swati Saluja, Maduri Kamraj University, 2007
- Variation in conductance on metal doping in various coordination polymers** Shivali Choudhary, 2007

Ph.D. Supervised: **Green Chemical conversion of waste plastic to selective boiling range products** Pooja Singh (Uttarakhand Technical University) 2016.

Greener Chemical Recycling of Waste Polyvinyl Chloride (PVC) Plastic Towards Useful Products Sunil Thakur (Manav Bharti University) Solan HP 2012.

Retro polymerization of Poly Vinyl Chloride: Ritu Singh (Uttarakhand Technical University) 2016.

Consequences of metal management from e-waste by weed species: Virbala Sharma, Central University of H P, 2017

Ph.D. Supervising:

Participation in Seminars/Conferences:

International

1. Presented paper and poster entitled **Use of Waste Glass in the Degradation of Waste Polyolefin**; 24th International Conference on Solid Waste Technology and Management entitled Widener University, Philadelphia, USA, 15-18 March, 2009.
2. Presented a poster in the First international conference on nanoscience and nanotechnology, Kottayam, Karala. 7-9 January, 2011.
3. Presented a Paper in the “International Conference on Mountain Biodiversity” Doon University Dehradun, on 13-15 March, 2010.
4. Presented a paper in **The International Conference of Solid Waste 2011 Moving Towards Sustainable Resource Management, Hong Kong Baptist University SAR, China; 3-7 May 2011**
5. Presented paper entitled “Hybrid methodology for the Management of E-waste”, December 05, 2013, First International conference on contribution of science and technology on world development, by DESIDOC Government of India.
6. Presented paper entitaled “Chemical and Biological Leaching of Metals from E waste: Mononuclear to Multinuclear Complex Formation” on International conference on Solid waste 2015: Knowledge Transfer for sustainable Resource Management (ICHWSK2015) 19-23 May 2015; Hong Kong Baptist University SAR, China.

National

7. Presented a paper entitled “**Chemical Recycling of Waste Compact Disc towards polyfunctional compounds**” in 4nd Uttarankhand State Science Congress on dated 10-12 November 2009, held at GBPUT, Pantnagar.
8. Presented a paper entitled “**Modification of Waste Glass Powder**” in 4nd Uttarankhand State Science Congress on dated 10-12 November 2009, held at GBPUT, Pantnagar.
9. Presented a paper entitled “**Use of Waste Glass as Absorbent Material in**

Chromatography” in 3rd Uttarakhand State Science Congress on dated 10-11 November 2008, held at IIT Roorkee.

10. Participated in the **National Roving Seminar on traditional Knowledge** was organized by Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India and World Intellectual Property Organization (WIPO) on 13-14 August 2008 at Dehradun.
11. Presented a poster entitled “**Selective Degradation of various Low Density Polyethylenes into Liquid Fuels**” in 2nd Uttarakhand State Science Congress on dated 15-17 November 2007, held at Nainital.
12. Participated in the **Workshop on Biotechnology Education** organized by DIBNS, Forest Research Institute and Wildlife Institute of India Dehradun on 3-7 October, 2007
13. Paper presented entitled “**Effect on Chemical Oxygen Demand in Ground Water by Sugar Mill**” in National Seminar on Environmental Education: Nature & Nurture held at Vardhaman College, Bijnor India at 26-27 February, 2006.
14. **Attended National Seminar on “Research Methodology”** held at Kumaun University, Nainital, India at 16-20 December 1999.
15. Paper presented entitled **NOBEL MODAL FOR THE PRODUCT SELECTIVE DEGRADATION OF WASTE POLYETHYLENE INTO FUEL PRODUCTS LIKE GAS, PETROL OR DIESEL IN ONE POT IN 5TH Uttarakhand State Science Congress** on dated 10-12 November 2010, held at Doon University, Dehradun.

Training

1. Six months training programme based on polymerization technique and handling of some spectroscopic instruments like GC, GCMS, IR and TGA at Indian Institute of Petroleum, Dehradun, India. 16th April 2001-16th October 2001.
2. Attended a training programme on “Collection Handling and Disposal of Municipal solid waste” May 27-29, 2010, IIT Roorkee.
3. Nanoscience and Nanotechnology, Kottayam, Karala 02 November 10 to 20 January 2011.
4. Biotechnological approach for genomic DNA isolation, sequencing, cloning and characterization, December 5-11, Department of Biotechnology, IIT Roorkee. 2011.
5. Radon Training Workshop 2014, 22-26 September, 2014 at BARC Mumbai

Membership of Learned Societies/ Professional Bodies:

1. International society for energy environment and sustainability (Number 14092)
2. The Biotech research society India(BRSI) LM2050

**Awards &
Honours
Received:**

- **8th National Award for Technology Innovation (2018)** conferred by Hon'ble Vice President of India, Ministry of Chemicals and Fertilizers, Government of India
- **Visitor Award 2017 for best innovation by Hon,ble President of India.**
- **SERB Young scientist award 2007.**
- **Summer Research fellowship 2010** by Indian National Science Academy (INSA)
- **SERB Department of Science Visiting Fallowship-2010**
- **Young scientist award** for the year 2009 by Uttarakhand State council of Science and Technology Government of Uttarakhand.
- Awarded by "**Silver Jubilee research scholarship**" for the year 2002 by Kumaon University.

Others: