

# Curriculum Vitae

**Name:** Dr. Harshita Sachdeva

**Designation:** Associate Professor (Chemistry), Department of Chemistry, University of Rajasthan, Jaipur.

**Teaching Experience:** 17 Yrs

**Research experience:** 15 Years

- Worked as JRF in UGC Project “Design and new synthetic approaches to biodynamic Spiro indoles” from July 1995-July 1998 in the Department of chemistry, University of Rajasthan, Jaipur.
- Got senior research fellowship (Directly from CSIR) in the Project “Non conventional method for the synthesis of biodynamic Heterocycles” 1998-2000 (Worked as Senior Research Fellow in Department of chemistry University of Rajasthan, Jaipur).

**Research Topic:** Synthesis of Some Potentially Biodynamic Heterocycles

**Area of Research:** Green Chemistry

Green Chemistry is placed in the frontier areas of research and has been focused for considerable recent research. It aims to change the use of toxic solvents with greener alternatives, replacement of hazardous organic solvents with ecofriendly techniques, easy separation and purification which do not need use of organic solvent. In the course of innovation and contribution to the field of research, I have synthesized novel biologically important oxygen; nitrogen and sulphur containing heterocyclic compounds either through the use of alternative reaction media and alternative catalyst or alternative energy source like microwave irradiation. The main purpose of research is avoiding the use of organic solvents by developing environmentally friendly techniques avoiding time consuming and tedious extractive workup procedure.

**Number of Research Publications in Journals:** 35

**Papers accepted/presented in conferences:** 20

**PhD Supervised:** 03

- Conferences attended:**
- 1 Attended **32<sup>nd</sup> Annual Convention of Chemists**, UOR Jaipur **Dec. 1995**
  - 2 Attended **International symposium on metallo-organic chemistry at the Dawn of the twenty-first century** held at Department of chemistry, University of Rajasthan, Jaipur, **March 1998**.
  - 3 Attended **44<sup>th</sup> Annual Conventions of Chemists**, Mahatma Gandhi Institute of Applied Sciences, Jaipur **Dec. 2007**.
  4. Attended **National Workshop on Microwave Sciences**, Engineering College Bikaner, **April 2008**
  5. Participated in **National Conference on “Energy”** held at Mody Institute of Technology and Science, Deemed University, Lakshmanagarh, Sikar (Rajasthan), October 18-19, **2008**.
  6. Participated in **National Conference on “Energy”** held at Mody Institute of Technology and Science, Deemed University, Lakshmanagarh, Sikar (Rajasthan), October 31-Nov. 1st, **2009**.

**Courses Taught:** Engineering Chemistry  
Environmental Engineering  
B Sc (Chemistry)

**Books Reviewed:** Engineering Chemistry by Sivasankar  
Published by TATA MC Graw Hill (2009)

**Reviewers of Journals**

Acta Chemica Slovenica, Molecules, Letters in Drug Design and  
Discovery, Medicinal Chemistry Research, Organic Chemistry  
International, Chinese Journal of Catalysis, RSC Advances, etc.

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**List of Research Publications (Journals)**

S. No.	Author's Name	Title of Paper	Name of Journal/ Proceedings	Volume, No., Pages, Year, Place	ISSN/ISBN/Registered Society No.
1	Anshu Dandia, Harshita Taneja and Mitali saha	Synthesis of novel spiro (indole-pyranoimidazole) and spiro (indole-pyranopyrrole) derivatives	Indian J. chemical Technology CODEN: ICHTEU ... NISCAIR	4, 243-246 (1997)	ISSN : 0975-0991 (Online); 0971-457X (Print) Impact Factor of IJCT is 0.580
2	Savita Belwal, Harshita Taneja and R. V Singh	Novel bioactive thiosemicarbazide ligands and their organosilicon(iv) and organo tin(iv) complexes	Phosphorus, Sulphur and Silicon, Taylor & Francis	127, 49-58 (1997)	ISSN 1042-6507 (Print), 1563-5325 (Online) Impact Factor: 0.827
3	Anshu Dandia, Harshita Taneja, R.Gupta and Satya Paul	An Efficient procedure for the synthesis of Spiro [indole-pyranopyrrole] carbonitriles using solid inorganic supports and microwave activation	Synthetic Communications Taylor & Francis	29 (13) (1999)	ISSN 0039-7911 (Print), 1532-2432 (Online) Impact Factor: 0.984
4	Anshu Dandia, Mitali Saha and Harshita Taneja	Improved one pot synthesis of 3- spiroindolines under microwave irradiation	Phosphorus, Sulphur and Silicon, Taylor & Francis	5(4), 1-9 (1998)	ISSN 1042-6507 (Print), 1563-5325 (Online) Impact Factor: 0.827
5	Anshu Dandia, Mitali Saha and Harshita Taneja	Synthesis of Fluorinated ethyl4-aryl-6methyl-1, 2,3,4-tetrahydropyrimidine-2-thione-5-carboxylates under microwave irradiation.	J. Fluorine Chemistry, Elsevier	90, 17-21 (1998)	ISSN: 0022-1139 Impact Factor: 1.952
6	Harshita Taneja, Anshu Dandia and Ruby singh	Improved microwave induced synthesis of spiro [indole-pyrazole/isoxazole /pyrimidine] Derivatives.	Indian J. Heterocyclic Chem. National Academy of Chemistry	9, 149-150 (1999)	ISSN: 09711627 Impact factor 0.17
7	Anshu Dandia, Harshita Sachdeva, N. Ahmed and K. C. Joshi	One pot synthesis of fluorine containing diastereoisomeric spiro [indole-oxiran] and their conversion to indole-quinoline-ones.	Heterocyclic Communications Walter de Gruyter GmbH & Co. KG.	6(2), (2000)	ISSN (printed): 0793-0283. ISSN (electronic): 2191-0197. IMPACT FACTOR 2013: 0.727
8	Anshu Dandia, Harshita Sachdeva, and	Montmorillonite catalyzed synthesis of novel spiro [3H-indole-3, 3'-[3H-1, 2,4]	J. Chemical Research (S) Science Reviews, 2000.	272-275 (2000)	ISSN 1747-5198 IMPACT FACTOR 2013: 0.697

	Ruby singh	triazol]-2(1H) ones in dry media under microwave irradiation,			
9	Anshu Dandia and Harshita Sachdeva	Improved synthesis of 3-spiroindolines in dry media under microwave irradiation	Synthetic Communications Taylor & Francis	31(12), 1879-1892 (2001)	ISSN 0039-7911 (Print), 1532-2432 (Online) Impact Factor: 0.984
10	Anshu Dandia, Ruby Singh, Kapil Arya and Harshita Sachdeva	Facile one pot microwave induced synthesis of spiro [indole-pyrazoles] and spiro [indole-isoxazoles]	Heterocyclic Communications Walter de Gruyter GmbH & Co. KG.	7(6), 571-576, (2001)	IMPACT FACTOR 2013: 0.727 ISSN (printed): 0793-0283. ISSN (electronic): 2191-0197.
11	Anshu Dandia, Ruby Singh, Kapil Arya and Harshita Sachdeva	Microwave assisted one pot synthesis of a series of trifluoromethyl substituted Spiro [indole-triazoles]	J. Fluorine Chemistry Elsevier	111(2001) 61-67	ISSN: 0022-1139 Impact Factor: 1.952
12	Anshu Dandia, Harshita Sachdeva, Ruby singh and C S Sharma	Microwave assisted one pot synthesis of novel 11-amino-3-phenyl-2-thioxo-10-oxoimidazolo [5'', 4'': 5', 6'] pyrano [4', 3': 3,4] furo[2,3-b]indoles	Indian J. Chemistry Section B	Vol.42B, 140-144 (2003)	MONTHLY ISSN: 0975-0983 (Online) CODEN: IJOCAP ISSN: 0376-4699 (Print) Impact Factor: 0.489
13	Anshu Dandia Ruby singh, Harshita Sachdeva, R.Gupta and Satya Paul	Microwave promoted and improved thermal synthesis of spiro [indole-pyranobenzopyrans] and spiro [indole-pyranoimidazoles]	J. Chinese chemical Society	50, 273-278(2003)	Online ISSN: 2192-6549 Impact Factor: 0.856.
14	Harshita Sachdeva, Anshu Dandia and Harlal Singh	Synthesis of novel 6' amino-1, 3-dihydrospiro [3H-indol— 3,4'(1'H) pyrano (2,3-c) pyrrol]-2-oxo-5'-carboxyethylester	Organic Chemistry: An Indian Journal	4(12) 2008, 508-512	ISSN 0974 - 7516
15	S S Chauhan, Y.C Joshi, Harlal Singh and Harshita Sachdeva	Synthesis of novel 3- (4-methoxy benzenesulfonyl)-2- (1,3-benzodioxol-5-yl)-4- (substituted phenyl)-1,5-benzothiazepines.	Organic Chemistry: An Indian Journal	4 (12) 2008, 532-536	ISSN 0974 - 7516
16	Harshita Sachdeva	Rapid microwave induced one pot synthesis of fluorinated spiro [indol-pyrimidines]	Indian Journal of Heterocyclic Chemistry, National Academy of Chemistry	18(3), 2009, 315-316	ISSN: 09711627 Impact factor: 0.17
17	H. L. Singh, S. S. Chauhan and H. Sachdeva	Synthesis and characterization of Pb(II) complexes of Schiff bases derived from 3-methoxy-4-fluoro acetophenone with amino acids	Research on Chemical Intermediate, Springer, USA	Vol. 36 (9) 2010	ISSN: 0922-6168 J.No.11164, Springer Impact factor: 1.540
18	Harshita Sachdeva, Diksha	Aqua mediated facile synthesis of 2-(5/7-fluorinated-2-oxoindolin-3-	Research Journal of Pharmaceutical, Biological and Chemical Sciences.	2(2), 2011, 213-219	ISSN: 0975-8585 Impact factor: 0.35

	Dwivedi and Sarita Khaturia	ylidene)-N- (4-substituted phenyl) hydrazine carbothioamides			
19	Harshita Sachdeva, Rekha Saroj, Sarita Khaturia and S.S. Chauhan	HgCl <sub>2</sub> promoted one pot synthesis of 3, 4-dihydropyrimidin-2(1H)-ones and thiones under solvent free conditions	Heterocyclic Letters	Vol. 1: (4), 2011, 297-304.	ISSN: 2231 – 3087(print) / 2230 – 9632 (Online)
20	Harshita Sachdeva and Diksha Dwivedi	Lithium Acetate Mediated Biginelli One-Pot Multi-Component Synthesis Under Solvent Free Conditions and Cytotoxic Activity against the Human Lung Cancer Cell Line A549 and Breast Cancer Cell Line MCF7	The Scientific World Journal	Volume 2012, Article ID 109432, 9 pages doi:10.1100/2012/109432 New York, NY 10022 USA.	ISSN 1537-744X Impact factor 1.219
21	Harshita Sachdeva, Rekha Saroj, Sarita Khaturia and Har Lal Singh	Comparative Studies Of Lewis Acidity Of Alkyl-Tin Chlorides In Multicomponent Biginelli Condensation Using Grindstone Chemistry Technique	Journal of Chilean chemical Society	57, N° 1 (2012) Chile.	On-line ISSN 0717-9707 Impact factor: 0.65
22	Harshita Sachdeva, Diksha Dwivedi, Har Lal Singh, Kanti Prakash Sharma	Aqua Mediated One Pot Facile Synthesis of Novel Thioxo-1,2,4-triazin-5(2H)-one and [1,2,4]triazino[5,6-b]indole Derivatives and their Biological Activities	Journal of Chilean chemical Society	57, N° 4 (2012) Chile.	On-line ISSN 0717-9707 Impact factor: 0.65
23	Harshita Sachdeva, Diksha Dwivedi, R.R. Bhattacharjee, Sarita Khaturia and Rekha Saroj	NiO nanoparticles: an efficient catalyst for the multicomponent one-pot synthesis of novel spiro and condensed indole derivatives	Journal of Chemistry Hindawi Publishing Corporation, New York, NY 10022, USA.	Volume 2013, Article ID 606259, 10 pages. <a href="http://dx.doi.org/10.1155/2013/606259">http://dx.doi.org/10.1155/2013/606259</a> ,	ISSN 2090-9063 e-ISSN 2090-9071 Impact Factor 0.622
24	Harshita Sachdeva, Rekha Saroj, Sarita Khaturia and Diksha Dwivedi	Green Chemical Synthesis of Amino-Acid Schiff Bases Incorporating Oxindole and 1,3,4-Thiadiazole Moieties	Chem. News Letter	VOL.1, NO.1, page 97-102	ISSN 2278-6201
25	Harshita Sachdeva, Rekha Saroj,	Operationally Simple Green Synthesis of Some Schiff Bases Using Grinding	Green processing and Synthesis, De Gruyter.	1: 469–477, 2012.	ISSN (Online) 2191-9550, ISSN (Print) 2191-9542. DOI 10.1515/gps-2012-0043.

	Sarita Khaturia and Diksha Dwivedi	Chemistry Technique and Evaluation of Antimicrobial Activity			
26	Harshita Sachdeva, Diksha Dwivedi, Kapil Arya, Sarita Khaturia, and Rekha Saroj	Synthesis, anti-inflammatory activity and QSAR study of some Schiff Bases derived from 5-mercapto-3-(4'-pyridyl)-4H-1,2,4-triazole-4-yl-thiosemicarbazide	Medicinal Chemistry Research, Springer.	22, 4953-4963, 2013.	ISSN 1054-2523 DOI 10.1007/s00044-013-0507-6, 2013. Impact factor 1.612.
27	Harshita Sachdeva, Rekha Saroj, Sarita Khaturia and Diksha Dwivedi	Environ-Economic Synthesis and Characterization of Some New 1,2,4-Triazole Derivatives as Organic Fluorescent Materials and Potent Fungicidal Agents	Organic Chemistry International Hindawi Publishing Corporation, New York, NY 10022, USA	Volume 2013, Article ID 659107, 19 pages. doi:10.1155/2013/659107	ISSN: 2090-200X (Print) ISSN: 2090-2018 (Online)
28	Harshita Sachdeva, Diksha Dwivedi and Pradeep Goyal	Green Chemical Synthesis and analgesic activity of Fluorinated Thiazolidinone, Pyrazolidinone, and Dioxanedione Derivatives	Organic Chemistry International Hindawi Publishing Corporation, New York, NY 10022, USA	Volume 2013 (2013), Article ID 976032, 8 pages. doi:10.1155/2013/976032	ISSN: 2090-200X (Print) ISSN: 2090-2018 (Online)
29	Harshita Sachdeva, Diksha Dwivedi and Rekha saroj	Alum catalyzed simple and efficient synthesis of 2-[3-amino-5-methyl-5-(pyridin-3-yl)-1,5-dihydro-4H-1,2,4-triazol-4-yl]propanoic acid derivatives in aqueous media"	The Scientific world Journal (Section: Organic Chemistry)	Volume 2013 (2013), Article ID 716389, 7 pages, 2013. Hindawi Publishing Corporation, New York, NY 10022, USA	ISSN: 2356-6140 (Print) ISSN: 1537-744X (Online) doi:10.1155/2013/716389 Impact factor 1.219
30	Harshita Sachdeva and Rekha saroj	ZnO nanoparticles as an efficient, heterogeneous, reusable, and ecofriendly catalyst for four-component one-pot green synthesis of pyranopyrazole derivatives in water	The Scientific world Journal (Section: Organic Chemistry)	Volume 2013 (2013), Article ID 680671, 8 pages, 2013. Hindawi Publishing Corporation, New York, NY 10022, USA	ISSN: 2356-6140 (Print) ISSN: 1537-744X (Online) doi:10.1155/2013/680671 Impact factor 1.219
31	Harshita Sachdeva, Rekha saroj, Diksha Dwivedi, Sarita Khaturia and Om Prakash Chauhan	Green route for efficient synthesis of novel amino acid Schiff bases as potent antibacterial and antifungal agents and evaluation of cytotoxic effects	Journal of Chemistry	01/2014; 2014:Article ID 848543, 12 pages, Hindawi Publishing Corporation, New York, NY 10022, USA	ISSN: 2090-9063 (Print) ISSN: 2090-9071 (Online) <a href="http://dx.doi.org/10.1155/2014/848543">http://dx.doi.org/10.1155/2014/848543</a> .  <i>Impact Factor 0.622</i>

32	Har Lal Singh, J. B. Singh, H. Sachdeva	Synthesis, Spectroscopic and Antimicrobial Studies of Lead(II) Complexes of Schiff Bases Derived From Amino Acids and Isatins	Spectroscopy Letters	2013; 46 (4), 286–296. Taylor & Francis.	DOI: 10.1080/00387010.2012.700545, ISSN 0038-7010,
33	Harshita Sachdeva, Rekha Saroj and Diksha Dwivedi	Nano-ZnO Catalyzed Multicomponent One-Pot Synthesis of Novel Spiro [indoline-pyranodioxine] Derivatives	The Scientific world Journal	01/2014; 2014: 427195. Hindawi Publishing Corporation, New York, NY 10022, USA	ISSN: 2356-6140 (Print) ISSN: 1537-744X (Online) <a href="http://dx.doi.org/10.1155/2014/427195">http://dx.doi.org/10.1155/2014/427195</a> . Impact factor 1.219

### Conference Abstracts

S.No.	Author's Name	Title	Name of Journal/ Proceedings	Volume, No., Pages, Year, Place
1	Anshu Dandia and Harshita Taneja	One pot Synthesis of fluorine containing distereoisomeric Spiro [3H-indol-3, 3'-oxiran]-2(1H) ones and their conversion to 5a, 10b-dihydro-5H, 6H-indolo [2, 3-b] quinolin-11-ones.	Abstract, "32nd Annual Convention of chemists" (OS-8),	Department of Chemistry, University of Rajasthan, Jaipur-302004, <b>Jaipur (1995)</b> .
2	Anshu Dandia and Harshita Taneja	Synthesis of novel 1, 3-dihydro-3- [(1-phenyl-4-oxo-2-thioxo)-5-imidazolidinyl] idene-2H-indol-2-ones and investigation of their reaction with thiourea and fluorinated thiourea derivatives.	Abstract, "32nd Annual Convention of chemists" (OS-10),	Department of Chemistry, University of Rajasthan, Jaipur-302004, <b>Jaipur (1995)</b> .
3	Anshu Dandia and Harshita Taneja	Microwave induced elegant synthesis of novel Spiro [3H-indole-3, 4' (1'H) pyrano [2, 3-c] pyrrole]-5'-carbonitriles.	Abstract, "34th Annual Convention of chemists"	<b>ORG (O)-26</b> . University of Delhi, December 17- 20, New Delhi (1997).
4	Anshu Dandia and Harshita Taneja	Improved synthesis of 3- Spiro indolines under microwave irradiation	Abstract, "35 <sup>th</sup> National Organic Symposium"	Trinity University, San Antonio, (June, 1997)
5	Anshu Dandia and Harshita Taneja	Improved one pot synthesis of 3- Spiroindolines under microwave irradiation	Abstract, "International Conference on Microwave chemistry"	Prague, Czech Republic (Sept. 6-11, 1998) <b>ISBN:</b> 8086186016 9788086186016 <b>Publisher:</b> [Prague]: Institute of Chemical Process Fundamentals, 1998.
6	Anshu Dandia and Harshita Taneja	Rapid Synthesis of 3- Spiro indolines via ecofriendly reactions	Abstract, "First Singapore chemical Conference."	Department of Chemistry, National University of Singapore, Singapore, (Dec., 1998)
7	Anshu Dandia and Harshita Taneja	Elegant Environmentally benign one pot synthesis of some biodynamic-3-spiroindoline derivatives.	Paper "68 <sup>th</sup> Annual Session of National Academy of Sciences."	CDRI, Lucknow (Oct., 1998).
8	Harshita Sachdeva and H L Singh	Microwave induced one pot synthesis of Azetidionyl-1, 3,4-Thiadiazino [6,5-b] indoles	Abstract, "44th Annual Convention of chemists" <b>ORG (OP)-64</b> .	Mahatma Gandhi Institute of Applied Sciences, Jaipur (2007).

9	H L Singh and Harshita Sachdeva	Synthesis and spectroscopic characterization of Tin (II) and lead (II) complexes of biologically active schiff's base derived from 2-amino 1,3,4-thiadiazino (6,5-b) indoles	Abstract, "44th Annual Convention of chemists" <b>IOG (OP)-32</b> .	Mahatma Gandhi Institute of Applied Sciences, Jaipur (2007).
10	Harshita Sachdeva, R Chaudhary and A Sharma	Biofuels-Future source of Energy	Abstract "2007 International Conference on organic farming and renewable sources of energy for sustainable agriculture Engineering"	Engineering College, Bikaner, Accepted for poster presentation (2007).
11	H L Singh and Harshita Sachdeva	Synthesis and characterization of some lead (II) complexes of semicarbazones and thiosemicarbazones derived from substituted 3-arylmethylene-2H-indol-2-ones	Abstract, "45th Annual Convention of chemists"	<b>ING (OP)-28</b> , PG Department of Chemistry, Dharwad University (Karnataka) (2008).
12	Harshita Sachdeva, <u>Diksha Dwivedi</u> and Sarita Khaturia	Aqua mediated one pot facile synthesis of thioxo 1,2,4-triazin-5(2H)-one and [1,2,4] triazino [5,6-b] indole Derivatives	Third International Conference on Heterocyclic Chemistry	10-13 Dec. 2011 POS-57. Department of Chemistry, University of Rajasthan, Jaipur-302004
13	Harshita Sachdeva, <u>Rekha Saroj</u> and Sarita Khaturia	Green Chemical Lewis acid catalyzed facile synthesis of 3,4-dihydropyrimidin-2(1H)-ones	Third International Conference on Heterocyclic Chemistry	10-13 Dec. 2011 POS-122. Department of Chemistry, University of Rajasthan, Jaipur-302004
14	Harshita Sachdeva, <u>Diksha Dwivedi</u> and R. R. Bhattacharjee	Synthesis of Shape Controlled ZnO and NiO Nanoparticles and their use in Knoevenagel-Michael Addition Reactions under Microwave Irradiation	ICGC-2011 International conference on Green Chemistry 2011	7-9 Dec., Page 65. School of Chemical Sciences and Pharmacy Central University of Rajasthan Kishangarh – 305 802, Dist. Ajmer, Rajasthan (INDIA)
15	Harshita Sachdeva, Sarita Khaturia and <u>Rekha Saroj</u>	One-Pot Multi-Component Lewis acid Catalyzed Biginelli synthesis using Grindstone Chemistry Technique	ICGC-2011 International conference on Green Chemistry 2011	2011, 7-9 Dec., Page 64. School of Chemical Sciences and Pharmacy Central University of Rajasthan Kishangarh – 305 802, Dist. Ajmer, Rajasthan (INDIA)
16	Harshita Sachdeva, Sarita Khaturia	Factors affecting role of woman in Science and Technology- An Indian Perspective	International Conference on Women in Science and Engineering: Global Perspectives on Challenges and Opportunities WISE-2012	MITS in association with University of Missouri, College of Engineering Columbia, USA Pages 27-28.

