

## CURRICULUM VITAE

Name: **VANDNA SONI**  
Date of Birth: August 30, 1975  
Address: 229, Double Storey, New Rajinder Nagar, New Delhi- 110060.  
Phone: 011-28742698 (Res.)  
Cell: 9811881402.  
Email: [vandnasoni.vs@gmail.com](mailto:vandnasoni.vs@gmail.com); [vandnaarora@yahoo.com](mailto:vandnaarora@yahoo.com)

### EDUCATIONAL QUALIFICATION:

**Ph. D.** Indian Institute of Technology, Delhi, Under the Supervision of Prof. H. M. Chawla, April, 2004.

**Broad Area of Research:** Organic Chemistry

**Title of the Thesis:** Studies Directed Towards Development of New Molecular Diagnostics. Pre Ph.D. C.G.P.A. = **9.83**.

**M.Sc. (Chemistry)** Indian Institute of Technology, Delhi, 1998. **First Division (C.G.P.A. 8.9/10.0)**.

**B.Sc. (Hons.) Chemistry**, Hindu College, Delhi University, 1996. **First Division, (65%)**.

**A.I.S.S.C.E.** CBSE, N.C. Jindal Public School, New Delhi, 1993. **(81.2%)**.

**A.I.S.S.E.** CBSE, N.C. Jindal Public School, New Delhi, 1991. **(68%)**.

### PRE-PhD RESEARCH EXPERIENCE:

Done a project entitled “**Lipase – catalyzed Enantioselective Deacetylation**

**of 2,4-Diacetoxy-phenyl-(1-phenyl)-propyl ketone: Synthesis of Optically**

**pure 3-phenyl-4-alkyl coumarins**” under the supervision of Prof. V.S. Parmar, Chemistry Department, Delhi University, for a period of 3 months (1<sup>st</sup> May’97 – 30th June’97).

Done a project entitled “**Experiments Directed Towards Development of**

**New Molecular Diagnostics**” under the supervision of Prof. H.M. Chawla,  
Chemistry Department, Indian Institute of Technology, Delhi, for 6 months  
(1st Dec.’1997 – 31st May’1998).

#### **AWARDS AND HONORS:**

Young Scientist Award for best presentation at the National Conference of Indian Council of Chemists held at Rani Durgavati University, Jabalpur from 24th – 26th October, **2002**.

Senior Research Fellowship (NET-CSIR) May, 2001.

Joint CSIR-UGC National eligibility Test (NET) for Lectureship, June, 2000.

Qualified Graduate Aptitude Test in Engineering (GATE), 1998 (**percentile: 84.55**)

#### **PUBLICATIONS:**

**“Calixarenes as Sensor Materials for Recognition and Separation of Metal Ions”**

Vandna Arora, H.M. Chawla and Sunil Pratap Singh *ARKIVOC*, **2007**(ii),172-200. ISSN No. 1424-6376

**“Synthesis of New formylated calix[4]arene and X-ray Structure”** V. Arora, H. M. Chawla and G. Hundal *Journal of Chemical Crystallography*, Vol. 34, **2004**, 465 – 469. ISSN No. 1074-1542

**“Synthesis of Selectively Formylated Calixarene Ethers”** Vandna Arora, H.M. Chawla and Anuradha Santra *Tetrahedron*, Vol. 58, **2002**, 5591 – 5597. ISSN No. 0040-4020

**“Poly Aluminium Chloride -An Attractive Alternate Flocculant for Drinking and Effluent Waters”** H.M. Chawla and Vandna Arora *Everything About Water*, **2002**, 59 – 60.

**“Synthesis of a New Cesium Selective Calix[4]arene Based Chromoionophore”** Vandna Arora, H. M. Chawla, Tania Francis, Meenakshi Nanda and Suneel Pratap Singh *Indian Journal of Chemistry*, Vol. 42A, **2003**, 3041. ISSN No. 0376-4710

**“Synthesis and Application of New Molecular Receptors from Formylated Calix[4]arenes and Hydrazones”** A. Bishnoi, B. Srivastava, H. M. Chawla and V. Arora

Proceedings of 6th National Symposium in Chemistry, February 6th-8th, **2004**, Indian Institute of Technology, Kanpur, P-148.

Presented a poster titled “**Studies on Effect of Bases at Lower Rim Functionalization of Calix[4]arene**” at UGC Sponsored Symposium under DRS held at Indian Institute of Technology, Roorkee from 17th –19th October, **2003**.

Presented a poster titled “**Synthesis and Conformational Characterization of Formylated Calixarene Ethers**” at National Conference of Indian Council of Chemists held at Rani Durgavati University, Jabalpur from 24th – 26<sup>th</sup> October, **2002**.

Presented a paper titled “**Comparative Study on Bromination of Aromatic Substrates by using Zeolites and Calix[n]arenes as Molecular Vessels**” at National Seminar on Modern Trends in Macrocyclic Compounds held at Gujarat University, Ahmedabad from 19th – 20th February, **2000**.

### **BOOKS PUBLISHED:**

“**Coordination Chemistry: Metal Complexes**” Dr. P.L.Soni and Dr. Vandna Soni, *CRC Press*, 2013, Published by Anne books, ISBN No. 1466500506.

“**Inorganic Chemistry: Concepts & Main Group Elements**” Dr. P.L.Soni and Dr. Vandna Soni, 2017, Published by Manakin Press, ISBN No. 9789386221254.

### **E-Content Generation:**

Authored and video recorded seven e-modules for e-PG Pathshala Project funded by UGC under NMEICT mission of MHRD, Govt. of India in **2017**. (Content available on [www.epgp.inflibnet.ac.in](http://www.epgp.inflibnet.ac.in))

Developed E-LABS for BSc(H) Chemistry and BSc Programme (To determine the presence of extra elements in given organic compound) for Delhi University Portal funded by University of Delhi, **2011**. (Content available on [www.vle.du.ac.in](http://www.vle.du.ac.in))

### **PARTICIPATION IN CONFERENCES, SEMINARS AND WORKSHOPS**

Organised two day workshop on “Development of value addition material in Inorganic Chemistry for B. Sc. Programme – I year Web Content” at Institute of Lifelong Learning, University of Delhi, May 1st **2009**, Position Held: Coordinator.

“ICT Capacity building in DU” Tier – II workshop in collaboration with Microsoft at Dayal Singh College, University of Delhi, December 14th – 21<sup>st</sup> **2009**, Role: Speaker for the Valedictory session.

“Challenges in Teaching Chemistry” organized by Delhi Public School, R.K. Puram, September 17th – 18th , **2009**, Role: Speaker for the interactive session with teachers of Classes IX-XII.

### **CONFERENCES, SEMINARS AND WORKSHOPS ATTENDED**

“National Workshop on Basic ICT skills for Educators” held at Guru Angad Dev Teaching Learning Centre, Khalsa College, University of Delhi on 17<sup>th</sup> & 19<sup>th</sup> September **2016**.

“National Symposium and Workshop on Fingerprint Technology” organized by Sri Guru Tegh Bahadur Khalsa College, University of Delhi, February 4<sup>th</sup> - 5<sup>th</sup> **2014**.

“One day Workshop on Improvement of CHEMISTRY LAB SAFETY MANUAL” organized by Institute of Lifelong Learning, University of Delhi, August 3<sup>rd</sup> **2010**.

“Indo-European Conference on Quality Assurance in Higher Education” organized by University of Delhi in collaboration with Erasmus Mundus and INDIA – EU Study Centre, May 6<sup>th</sup> – 7<sup>th</sup> **2010**.

“National Symposium on Challenging Areas in Forensic Science” organized by Sri Guru Tegh Bahadur Khalsa College, University of Delhi, February 5<sup>th</sup> **2010**.

“Empowering the Teacher to Engage Students in Teaching / Learning Mathematics and Sciences through latest internet and LAN based Technologies” organized by EducoSoft, held at Conference Centre, University of Delhi, January 14<sup>th</sup> **2009**.

“Delhi State Level Symposium on Forensic Science” organized by Sri Guru Tegh Bahadur Khalsa College, University of Delhi, February 14<sup>th</sup> **2008**.

“Supported Blended Learning Workshop” organized by University of Delhi in collaboration with UK open University under the UK – India Education and Research Initiative (UKIERI), November 5<sup>th</sup> – 7<sup>th</sup> **2008**.

“National Seminar on Chemistry Education and Research in the 21<sup>st</sup> Century” organized by Dayal Singh College, University of Delhi, sponsored by CSIR, IOCL – R&D and IFFCO, February 7<sup>th</sup> – 8<sup>th</sup> **2008**.

Workshop on “e-Learning and Content Design” organized by Institute of Lifelong learning, University of Delhi, October 26<sup>th</sup> – 27<sup>th</sup> **2007**.

### **ORIENTATION AND REFRESHER PROGRAMMES ATTENDED**

“UGC - Sponsored Orientation Programme” held at Centre for Professional Development in Higher Education (UGC-ASC) Institute of Lifelong Learning, University of Delhi, from February 28<sup>th</sup> to March 30<sup>th</sup> **2009 (OR-59)**.

“UGC - Sponsored Refresher Course in Basic Sciences (ID)” organized by UGC-Academic Staff College, Jamia Millia Islamia, New Delhi from May 12<sup>th</sup> to June 2<sup>nd</sup> **2014**.

### **TEACHING EXPERIENCE:**

Taught B. Sc. (G) II & III year as an Ad-hoc Lecturer at Atma Ram Sanatan Dharma College, University of Delhi for a period of 10 months from October, 2003 – July, 2004.

Taught B. Sc. (H) 1st year as an Ad-hoc Lecturer at Hindu College, University of Delhi for a period of 12 months from July, 2004 – July, 2005.

Taught B. Sc. (H) 2nd year and B. Sc. (G) I & II year as an Ad-hoc Lecturer at Dayal Singh College, University of Delhi for a period of 6 months from August, 2005 – January, 2006.

Taught B.Tech. (Chemical) first year (lab. Classes) in IIT Delhi for a period of six months (one semester) from Dec., 2002 to May, 2003.

Taught M.Sc. (Chemistry) second year (lab. Classes) in IIT Delhi for a period of one year (two semesters) from July, 2001 – Nov., 2001 and July, 2002 – Nov., 2002.

Taught B. Sc. (H) IInd year and B.Sc. (Gen.) Ist year as an Ad-hoc Lecturer at Dayal Singh College, University of Delhi for a period of 7 months from July, 2005 – Jan., 2006.

Presently teaching B.Sc. Physical Science in Maharaja Agrasen College, University of Delhi , since Jan., 2006.

#### **PROJECTS UNDERTAKEN:**

e-PG Pathshaala for e-content generation for post graduate courses funded by MHRD  
**Position held :** Content writer and resource person for recording studio lectures  
**Duration of the project:** Ongoing since Jan 2015 INNOVATION PROJECT funded by University of Delhi. **Position held :** Co-PI

**Title of the project:** Characterization of Corrosion resistance properties of hydroxy based compounds in mine water environment from Indian Mines Coal and empirical calculations of thermodynamic parameters. **Duration of the project:** 17 months (15th November,2013 to 31st March, 2015)

Curriculum and content generation for class XI and XII on CBSE-i scheme of study for CBSE portal. **Position held :** Curriculum and Content author, **Duration of the project :** one year (May 2011- May 2012)

e-Content generation for undergraduate courses: B.Sc.(H) Chemistry and B.Sc. Physical Science for Delhi University Portal **Position held :** ILLL Fellow (On Deputation at Institute of Lifelong Learning, University of Delhi), **Duration of the project :** One year (Jan 2009- Jan 2010)