

## Naveen Anand

Designation : Associate professor

Subject : Chemistry

Area of Specialization : Organic Chemistry

College : Govt. College for Women, Gandhi Nagar, Jammu

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Date of Appointment: 16/01/1997



### Summary

**International publications: 09**

**Patents: 03 (US Patent: 01, European Patent: 01, PCT Int. Appl. For WO Patent: 01)**

**Cumulative Impact Factor: 21.8 (Publications only)**

**h-Index: 6.5**

**Conf/Seminar/Workshop: 26**

### Awards and Achievements

- Innovative Science Teacher Award, Department of Science and Technology, Government of Jammu & Kashmir (2012)
- Received Consolation Prize (2<sup>nd</sup> best) for poster presentation, at **Microbial Diversity 2005, An International Conference**, organized by Department of Microbiology, University of Delhi, South Campus, New Delhi.
- Recipient of Young Scientist Fellowship of Department of Science and Technology, Government of Jammu & Kashmir (for 1999).

### Workshops, Seminars, Symposia and Conferences attended

**26**, Acted as Co-Chairperson at **National Seminar on Quality Culture in Higher Education, 25-26<sup>th</sup> Oct. 2016**, held at Govt. College for Women, Gandhi Nagar, Jammu

**25**, Acted as Jury Member at **National Conference on Nascent Innovations in Chemical Sciences (NICS-2016)**, 21-22<sup>nd</sup> Oct. 2016 held at Sant Longowal Institute of Engineering & Technology, Longowal, Punjab.

**24**, One Invited Lecture at **4th J&K Women Science Congress**, 1-3<sup>rd</sup> Sep. 2016 held at Govt. College for Women, Gandhi Nagar, Jammu

**23**, One poster presentation at National Inter-disciplinary Science Symposium II, Feb. 25-26<sup>th</sup> 2015, held at Govt. Gandhi Memorial Science College, Canal Road, Jammu.

**22**, An oral presentation at National Conference on Recent Advances in Chemical & Environmental Sciences (RACES-2013) on 31<sup>st</sup> January, 2013 held at **Multani Mal Modi College, Patiala**.

**21**, Attended ICSSR Sponsored One Day National Seminar on **Socio-Cultural Prospects and Challenges of Tribal Communities of North Western India**, held on 24<sup>th</sup> March 2012 at Govt. College for Women, Gandhi Nagar, Jammu

**20**, Attended **International Symposium on Biotechnological Advances in Cancer Biology**, 7<sup>th</sup> Feb. 2012, held at Shri Mata Vaishno Devi University, Katra, J&K.

**19**, An oral presentation at **National Conference on Emerging Trends in Medical-Biotechnology and Nanotechnology** on 3-4<sup>th</sup> Dec. 2011, held at Arni University, Kangra.

**18**, Attended **7<sup>th</sup> J&K Science Congress**, 13<sup>th</sup> -15<sup>th</sup> Oct. 2011, held at University of Jammu

- 17, Attended 2 Days **Script Writing Workshop**, 7-8<sup>th</sup> Sep. 2011 Organized by ISRO at Govt. College for Women, Gandhi Nagar, Jammu
- 16, Attended **Chemical Research Society of India, North Zonal Meet**, 23<sup>rd</sup> – 25<sup>th</sup> Sep. 2011, held at University of Jammu
- 15, Attended **ISCAS National Symposium on New Trends in Material Research**, 18-20<sup>th</sup> Nov, 2010, held at ISCAS Institute of Solid State & Material Science, Jammu University Campus, Jammu.
- 14, Attended **North Zone Meet & National Symposium on Microbial Diversity and Bio-Prospceting**, 29-30<sup>th</sup> Oct, 2010, held at University of Jammu
- 13, One presentation at **Recent Trends in Biotechnology**, 11<sup>th</sup> March 2010, held at Govt. College for Women, Gandhi Nagar, Jammu.
- 12, One presentation at Quality Concern in Indian Higher Education to Meet the Global Challenges, Oct. 12-13<sup>th</sup> 2009, held at Govt. College for Women, Gandhi Nagar, Jammu.
- 11, Attended Bristol Synthesis Meeting, **17<sup>th</sup> April, 2007** at University of Bristol, Bristol, UK.
- 10, One poster presentation at **National Symposium on New Challenges in Chemistry**, 20-21<sup>st</sup> March 2006, held at Department of Chemistry, Guru Nanak Dev University, Amritsar.
- 9, Attended Innocentive Seminar, **March 5, 2006** at NIPER, Chandigarh.
- 8, One presentation at **National Symposium on Magnetic Resonance and its Applications**, 8-11<sup>th</sup> Oct. 2005, held at Regional Research Laboratory, Jammu.
- 7, One poster presentation in **Microbial Diversity 2005, An International Conference**, Apr. 14-16, organized by Department of Microbiology, University of Delhi, South Campus, New Delhi.
- 6, An oral presentation at **1<sup>st</sup> J&K Science Congress**, Feb 9<sup>th</sup>, 2005 held at University of Jammu.
- 5, Two poster presentations in **IUPAC International Conference on Biodiversity and Natural Products: Chemistry and Medical Applications (ICOB-4 & ISCNP-24)** organized by the Department of Chemistry, University of Delhi (INDIA) and the CSIR during Jan. 26-31<sup>st</sup>, 2004.
- 4, Attended the **National Symposium on Venoms Toxins**, 15-16<sup>th</sup> Nov. 2002, held at Acharya Shri Chander College of Medical Sciences and Hospital Sidhra, Jammu, INDIA.
- 3, An oral presentation at National Conference on Utilization of Bio-resources (**NATCUB-2002**), 24-25<sup>th</sup> Oct., 2002, held at RRL, Bhubaneswar, INDIA.
- 2, One presentation at National Seminar on Science Education in India-Status and Prospects, Nov. 20-21, 2000 Held at Department of Chemistry, University of Jammu.
- 1, Three presentations at **Indian Council of Chemists, Thirteenth Annual Conference**, 24-26<sup>th</sup> Oct. 1994, held at University of Jammu.

#### **Orientation/Refresher Courses Attended**

- 1, General Orientation Course, ASC, University of Kashmir, Srinagar (19/01/2000 to 12/2/2000)
- 2, Refresher Course in Chemistry, ASC, University of Kashmir, Srinagar (w.e.f. 5/1/2004)
- 3, Refresher Course in Chemistry, ASC, University of Kashmir, Srinagar (w.e.f. 6/7/2004)
- 4, Refresher Course in Chemistry, ASC, University of Kashmir, Srinagar (24/6/2005 to 14/7/2005)

## Research Publications

- 9, **Entrapment and kinetic resolution of stabilized axial and equatorial conformers of spiro- $\beta$ -lactams.**  
Naveen Anand, Bhahwal A. Shah, Munish Kapoor, Rajinder Parshad, Rattan L. Sharma, Maninder S. Hundal, Ajay P. S. Pannu, Prasad V. Bharatam & Subhash C. Taneja  
*Journal of Organic Chemistry*, 76(2011), 5999-6006.
- 8, **Psilostachyin, acetylated pseudoguaianolides and their analogues: preparation and evaluation of their anti-inflammatory potential.**  
Renu Chib, Bhahwal Ali Shah, Naveen Anand, Anjali Pandey, Kamini Kapoor, Sarang Bani, Vivek K. Gupta, Rajnikant, Vijay K. Sethi and Subhash Chandra Taneja  
*Bioorganic and Medicinal Chemistry Letters*, 21(2011), 4847-4851.
- 7, **Ruthenium-catalysed conversion of oxime ethers into nitriles**  
Naveen Anand, Nathan A. Owston, Alexandra J. Parker, Paul A. Slatford & Jonathan M. J. Williams  
*Tetrahedron Letters*, 48(2007), 7761-7763
- 6, ***Arthrobacter sp.*: a lipase of choice for the kinetic resolution of racemic arylazetidinone precursors of taxanoid side chains**  
Naveen Anand, Munish Kapoor, Khursheed A. Bhat, Surrinder Koul, Subhash C. Taneja, Rajinder Prashad, Kuldip S. Manhas, Rattan L. Sharma & Ghulam N. Qazi  
*Tetrahedron: Asymmetry*, 16(2007), 1059-1069.
- 5, **A Chemo-enzymatic route of diastereoisomer of 2-methyl-1-phenyl-1,3-butandiol: the dual role of microorganisms**  
K Ahmed, SC Taneja, AP Singh, N Anand, MA Qurishi, S Koul, GN Qazi  
*Tetrahedron*, 63 (2007), 445-450.
- 4, **Development of an efficient route to enantiopure bromohydrin precursor of  $\beta$ -adrenergic blockers (*R*)-Nifenalol and (*S*)-Sotalol**  
Munish Kapoor, Naveen Anand, Khursheed Ahmad, Surrinder Koul, Swapandeep S. Chimni, Subhash C. Taneja & Ghulam N. Qazi  
*Tetrahedron: Asymmetry* 16 (2005), 717-725.
- 3, **Chemoenzymatic approach to optically active phenylglycidates: resolution of bromo- and iodohydrins**  
Naveen Anand, Munish Kapoor, Surrinder Koul, Subhash C. Taneja, Rattan L. Sharma & Ghulam N. Qazi  
*Tetrahedron: Asymmetry* 15 (2004), 3131-3138,  
*ChemInform* 36 (11), March 15, 2005
- 2, **(3*R*, 4*R*)-cis-3-Acetoxy-1-(4-methoxyphenyl)-4-(2-furanyl)azetidin-2-one**  
Naveen Anand, Surrinder Koul, Subhash C. Taneja, Ghulam N. Qazi, Michael Spitteller, William S. Sheldrick, Tobias von. Almsick  
*Acta Crystallographica Sec E* (2004), o1215-1216.
- 1, **Kinetic resolution of 1-chloro-3-(1-naphthyl)-2-propanol, an intermediate in the synthesis of  $\beta$ -adrenergic receptor blockers**  
M Kapoor, N Anand, S Koul, SS Chimni, KS Manhas, C Raina, R Prashad, SC Taneja & GN Qazi  
*Bioorganic Chemistry* 31 (2003), 259-269.

## Patents

1, "Stereo selective chemoenzymatic process for the preparation of optically enriched phenylglycidates as precursors of Taxol side chain"

**US Patent 7,060,471**, June 13, 2006.

**Naveen Anand**, Munish Kapoor, Surrinder Koul, Subhash C. Taneja, Rattan L. Sharma, Ghulam N. Qazi.

2, "Stereo selective chemoenzymatic process for preparing optically enriched phenylglycidates"

**European Patent EP 1 601 778 B1, International Publication Number: WO 2004/081219 (23.09.2004)**

**Naveen Anand**, Munish Kapoor, Surrinder Koul, Subhash C. Taneja, Rattan L. Sharma, Ghulam N. Qazi.

3, "Lipase catalyzed kinetic resolution of paclitaxel synthesis intermediates"

**PCT Int. Appl. (2009), WO 2009118750 A1 20091001**

**Naveen Anand**, Munish Kapoor, Surrinder Koul, Subhash C. Taneja, Rajinder Prashad, Kuldip S. Manhas, Rattan L. Sharma, Ghulam N. Qazi.

## Research Projects (Minor / Major Project)

### Major Research Project:

**1, "Synthesis of Unnatural  $\beta$ -Amino Acids and Amino Alcohols by means of  $\beta$ -Lactam Synthase Method"**

UGC Sponsored Major Research Project (Rs. 12,90,800)

## Membership of Scientific Societies

- Life member, Nuclear Magnetic Resonance Society
- Life member, Indian Association of Solid State Chemists & Allied Sciences
- Life member, The Indian Science Congress Association (L23250)

## Academic Qualifications

Examination Passed	Board/ University	Subjects	Year	Division / Grade / Merit
SSC	CBSE	English, Hindi, S.St, Mathematics, Science	1984	II
Higher Secondary	CBSE	English, Physics, Chemistry, Biology	1986	II
Bachelor's Degree(s)	Jammu University	English, Chemistry, Botany, Zoology	1988	II
Master's Degree(s) (M.A/M.Sc.)	Jammu University	Chemistry	1992	I
NET/SLET	-----	-----		
Other Diploma / Certificates etc.				

## Research Experience

Research Stage	Title of Work /Thesis	University where the work was carried out	Year
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M. Phil or equivalent	<i>Synthesis of Some Bioactive Quinazolines</i>	Department of Chemistry, University of Jammu	1994
Ph.D.	<i>Synthesis and Kinetic Resolution Studies of Chiral Drug Precursors, Auxiliaries and Related Compounds</i>	Worked at: Bioorganic Chemistry Division, Indian Institute of Integrative Medicine (IIM-CSIR), Jammu. Degree awarded by University of Jammu	2006
D.Sc/D.Litt.	N/A	N/A	N/A
Training (Please specify) Young Scientist Fellowship	Young Scientist Fellowship of Department of Science and Technology, Government of Jammu & Kashmir	Worked with Prof SS Chimni at Department of Chemistry, Guru Nanak Dev University, Amritsar (Pb)	1999
Post-doctoral Fellowship	Royal Society International Fellowship Visit	Worked with Prof JMJ Williams, Department of Chemistry, University of Bath, Bath, United Kingdom.	Apr. 2007 to Jun, 2007

### Teaching Experience

Courses Taught	Name of the University/ College/Institution	Duration
iv) U.G. (B.A./B.Sc. etc.) (B.A./B.Sc. etc. Hons.)	Govt. Degree College (Boys) Udhampur Govt. College for Women, Gandhi Nagar, Jammu	20 yrs
v) P.G. (M.A./M.Sc.,etc.)	MSc. Biochemistry (Biomolecules)	1 month
vii) Any other (e.g Women Study, Skill Development, Add on courses, Coaching (JUET, CET) etc)		

### Extension Work / Community Service

**1, “Up-gradation of Bio-technology Laboratory”**  
**J&K Council for Science & Technology, JK DST Sponsored (Rs. 5 Lakh)**