

CURRICULUM VITAE

Name: *VIMAL KUMAR JAIN*

Mailing Address: Office – Director
UM-DAE Centre for Excellence in Basic Sciences
Health Centre Building, University of Mumbai, Kalina Campus,
Santacruz (E), Mumbai-400 098
Tel.: (022) 2652 4984; mob: 9757000357; Fax: 91-22- 2652 4982
e-mail: jainvk@cbs.ac.in

Res. - # 702, Empire Estate, Plot No 41-42, Sector-20,
Kharghar, Navi Mumbai-410 210.
Tel.: 2774-1521

Personal

Date of Birth: 1st August, 1956

Nationality: Indian

Present Position: Director, MU-DAE-CEBS

Academic Qualifications

B.Sc.: (1974) I Div. (Zoology, Botany and Chemistry) Agra University, Agra

M.Sc.: (1976) I Div. (Chemistry Organic) Agra University, Agra

Ph.D.: (1981) "Organic Derivatives of Arsenic and Antimony" Rajasthan University, Jaipur

Positions Held

- | | | |
|--------|---|--------------------------------|
| (i) | Post-doctoral Research Associate, University of Guelph (Canada)
(Full time research under the supervision of Prof. H. C. Clark). | 1981 –1984 |
| (ii) | Scientific Officer - SD, Chemistry Division, B. A. R. C. | 1984 – 1989 |
| (iii) | Scientific Officer - E, Chemistry Division, B. A. R. C. | 1989 – 1994 |
| (iv) | Scientific Officer - F, Chemistry Division, B. A. R. C. | 1994 – 1999 |
| (v) | Scientific Officer - G, NM & S Chemistry Division, B. A. R. C. | 1999 – 2004 |
| (vi) | Scientific Officer - H, NM & S Chemistry Division, B. A. R. C. | 2004 – 2007 |
| (vii) | Scientific Officer – H ⁺ , Chemistry Division, B. A. R. C. | 2007– 2012 |
| (viii) | Outstanding Scientist (OS), Chemistry Division, BARC | 2012– 2015 |
| (ix) | Distinguished Scientist (DS), Chemistry Division, BARC | 2015– 2016 |
| (x) | Head, Synthesis & Pure Materials Section, Chemistry Division, B.A.R.C. | 2000 – 2016 |
| (xi) | Honorary Professor of Chemistry, Homi Bhabha National Institute (deemed University) | 2006 - 2016 |
| (xii) | Officiated as Head NM & SC Division and Chemistry Division on several occasions | (since 2005-2012) |
| (xiii) | Head, Chemistry Division, Bhabha Atomic Research Centre, Mumbai | (March 2013–
July 2016) |
| (xiv) | Raja Ramanna Fellow, Chemistry Group, BARC | December 2016-
October-2017 |
| (xv) | Director, UM-DAE-CEBS, University of Mumbai, Kalina Campus, Mumbai | October-2017-till
date |

Awards and scientific recognition

- (i) Junior Research Fellowship (Oct 1976-Jan 1980) of UGC; Senior Research Fellowship (Feb 1980-Feb 1981) and Post-Doctoral Fellowship (March 1981-Oct 1981) of CSIR, New Delhi
- (ii) "Bruker NMR award for the young scientists" (1989).
- (iii) "Homi Bhabha Science & Technology Award" (1996) (Department of Atomic Energy, Govt. of India).

- (iv) "International Scientific Exchange Award" of NSERC, Canada, (to visit University of Guelph, Ontario, Canada) (September 1993 to March 1994).
- (v) Recipient of Royal Society of Chemistry Journals Grants for International Authors to visit Oxford University, Oxford (UK) (April-May 1999).
- (vi) "Prof. S. S. Sandhu Award" (1999), Indian Chemical Society.
- (vii) Chemical Research Society of India, Medal (2001).
- (viii) Member of the Indian delegation sent by the Indian National Science Academy to USSR for the Indo-Soviet Symposium on Organometallic Chemistry (June, 1989).
- (ix) Prof. Priyadarajan Ray Memorial Award (2006) of the Indian Chemical Society.
- (x) Group Achievement Award (2009) of DAE for "Process Development of High Purity Strategic Materials" under my Group Leadership.
- (xi) Prof. W. U. Malik Memorial Award (2012) of Indian Council of Chemists.
- (xii) The Dharamsi Morarji Chemical Co. Visiting Fellowship (2013) of Institute of Chemical Technology, Mumbai
- (xiii) Group Achievement Award (2014) of DAE for "Development of Hydrogen Mitigation Technology for Nuclear Power Plants".
- (xiv) 'Vigyan Ratan Award' of Gyan Sagar Science Foundation (2017)

Fellowship of Scientific bodies/ Academies

- (i) Young Associate of the Indian Academy of Sciences, Bangalore-560 080 (1988-1991).
- (ii) IUPAC Affiliate member (1989 to 1991).
- (iii) Fellow of the National Academy of Sciences (*FNASc*), India (Elected in 1995).
- (iv) Fellow of IUPAC (2008-).
- (iv) Fellow of the Royal Society of Chemistry (*FRSC*) (U.K.) (Elected in 2009).

Membership in the Editorial Boards

- (i) Elected to the Board of Associate Editors of "J. Indian Chemical society" (1997- 1998).
- (ii) Member of the International Editorial Board of "Main Group Metal Chemistry" (1999-2010) Published by Freund Publishing House.
- (iii) Member of the Editorial Board of "Indian J. Chemistry, Section A" (2002- 2010).
- (iv) Member of the Editorial Board of "The Open Inorganic Chemistry Journal" Bentham Press (2007-2009)
- (v) Guest editor (with Prof. H.B. Singh), Phosphorous, Sulfur, Silicon and related elements; vol. 180, issue 2-3 (2005) (published by Taylor and Francis, USA).
- (vi) Member of the Editorial Board of the "Proceedings of the National Academy of Sciences, India", Section-A –Physical Sciences (2007- 2011).
- (vii) Guest Editor (with Dr. D. Das) J. Chemical Sciences (Vol. 122, issue 1 (2010) (Springer).
- (viii) Member, Editorial Board of 'International J. Chemistry' (2011-) (Published by International Book House, Mumbai).

- (ix) Guest Editor (with Dr. R. K. Vatsa) of the web version of J. Materials Chemistry, RSC (UK) incorporating papers from ISMC-2014.
- (x) Guest Editor of a special issue on High Purity Materials of SMC Bulletin (Volume No 6, Issue No. 1, 2015).
- (xi) Guest Editor for the special issue on organometallics of "Proceedings of the National Academy of Sciences, India, Section-A" Volume 86, issue No 4 (2016).
- (xii) Editor-in-Chief (Inorganic chemistry Section) Chemistry Africa - A Journal of Tunisian Chemical Society, Published by Springer (2018-)
- (xiii) Book Editor (V.K. Jain and Indira K. Priyadarsini) 'Organoselenium compounds in Biology and Medicine, RSC, UK (2018)
- (xiv) Guest Editor (with Dr. Indira K. Priyadarsini) J. Chemical Sciences (Vol.131, issue 9 (2019) (Springer).

Membership of Professional Societies

- (i) Life Member: Indian Chemical Society (F/1689).
- (ii) Life Member: Nuclear Magnetic Resonance Society of India.
- (iii) Life Member: Catalysis Society of India (LM-9432).
- (iv) Life Member: Chemical Research Society of India (LM-121).
- (v) Life Member: Indian Science Congress Association, Calcutta. (Reg. No. L-8664; Card no. 8501).
- (vi) Life Member: Society for Materials Chemistry (LM-69).
- (vii) Joint secretary of the Indian Chemical Society (Mumbai Branch) (July, 1996 - June, 2000).
- (viii) Vice President, Indian Chemical Society, (Mumbai Branch) (2003- 2004).
- (ix) IUPAC Inorganic Chemistry Division Committee: National Representative from India (2004-2006).
- (x) President, Indian Chemical Society (Mumbai Branch) (2005- 2006).
- (xi) Vice-president: Society for Materials Chemistry (April 2013- March 2016).
- (xii) President: Society for Materials Chemistry (Term-I, April 2016- March 2019) and (Term-II, April 2019- March 2022).

Workshop/ Symposium organization

- (i) Co-Chairman for the 9th International Conference on the Chemistry of Selenium and Tellurium, IIT Bombay, (February 23-27, 2004).
- (ii) Secretary: One day workshop on "High Purity Materials for Advanced Electronics", 9 July 2004, BARC.
- (iii) Convener: Workshop on Organometallic Chemistry (April 18-20, 2005), Chemistry Group, BARC.
- (iv) Secretary, 2nd International Symposium on Materials Chemistry (ISMC-2008) 2-6 December, 2008, BARC, Mumbai.
- (v) Chairman, Workshop organizing committee of DAE-BRNS "2nd National workshop on Materials Chemistry (Catalytic Materials)", 22-23 November 2013.

- (vi) Convener, DAE-BRNS “5th Interdisciplinary Symposium on Materials Chemistry (ISMC-2014)” 9-13 December 2014.
- (vii) Co-convener: Theme meeting on Chemistry in Nuclear Technology”, IGCAR, Kalpakkam (9-10 July, 2015).
- (viii) Chairman: National Workshop on Materials Chemistry: Optical Materials”, BARC (20-21 November 2015).
- (ix) Convener, DAE-BRNS “6th Interdisciplinary Symposium on Materials Chemistry (ISMC-2016)” 6-10 December 2016.
- (x) Served as Member of the advisory committees of several national and international symposia/conferences.
- (xi) Chairman, Summer School, on ‘Science of Materials’, sponsored by all the three science academies of India at UM-DAE-CEBS: 6th May to 14th June 2019.
- (xii) Chairman: 5th National workshop on Materials Chemistry: Nano and composite materials (NWMC-2019 (NCom – Mat)), Manipal University, Jaipur 8-9 November 2019.

Membership in funding/ selection/ promotion committees

- (i) Member: Program Advisory Committee (PAC) Inorganic Chemistry, Department of Science & Technology (DST) New Delhi (2001-2007).
- (ii) Member: Program Advisory Committee (PAC) for International division of DST in the area of catalysis and chemical sciences (2005 - 2008).
- (iii) Member of the Assessment Committee for the promotion of staff members, IICT, Hyderabad (2000).
- (iv) Expert member: Faculty Selection committee, Shivaji University; Kolahpur, Rajasthan Central University, Kishangarh; Institute of Chemical technology, Mumbai
- (v) Member: Selection Committee for Chemistry Trainee of BARC (1986-1992, 1994, 1995).
- (vi) Member: Biology sub-committee for promotion of internal candidates (2001- 2011).
- (vii) Member of the panel experts for recruitment and assessment of scientists, NISCAIR (CSIR) (2010-2012).
- (viii) Co-Chairman of the standing selection Committee for promotion of departmental candidates (SO/D/ ETG (D-II) (Basic Sciences; Chemistry and biology committee) (2014-).
- (ix) Member of scerning committee for KSKRA fellowship of DAE (1999-2014) (1st Batch -25th Batch).
- (x) Member of the Committee for ‘Young Scientist Award of DAE’ (2013 and 2014).
- (xi) Expert for “Dr. S. S. Deshpande Memorial award” of Government Holkar College, Indore (2016).
- (xii) Chairman, Selection Committee of Atomic Energy Education Society (AEES) Central Level Awards, 2018.

Convener/ Membership in other committees

- (i) Member: Indian National Chemistry Olympiad Examination Board (2001, 2002).
- (ii) Member: Fellowship Scrutiny Committee (Physical Sciences) of the National Academy of Science, India (2005, 2006) (2018-).
- (iii) Member of the Training School (Chemistry) (2013-2016).
- (iv) Member Library committee for Chemical sciences (2013-2016).
- (v) Convener of Departmental Qulifying Examination for Technical Officer (TO) in Chemistry (2011- 2012).

- (vi) Convener of Regulatory Inspection Team-III (since 2008), Secretary of Local Safety Committee of Chemistry Group (since 2010) and Member of Modular Safety Committee (since 2010); Member - Crisis Management Committee for BARC (since September 2012).
- (vii) Chairman Unit Level Safety Committee-ML (ULSC-ML) (July 2014-2016).
- (viii) Member Secretary of the Governing Council of UM-DAE-CEBS (October 2017 – till date)
- (ix) Member, Governing Council of Atomic Energy Education Society (AEES) (September 2018- till date)
- (x) Member of the Jury team for assessment of poster and short oral communications in WSeS-8 Perugia, Italy, May 30-June 1, 2019 and 14th -ICCST, Sardinia, Italy, June 3-7, 2019.

Teaching/Universities related activities

- (i) As a visiting faculty to the Bombay university for taking lectures on Organometallic Chemistry of M.Sc. (final year) students (8-10 lectures) (1995-2001).
- (ii) Teaching (25 lectures) organometallic chemistry to VII-semester, UM-DAE-CEBS (since 2018-).
- (iii) Member, Board of Studies in Chemistry, Mumbai University (2001- 2005).
- (iv) Member, Syllabus Committee for Inorganic Chemistry (B.Sc. to M.Sc.) (2001- 2005), Mumbai University.
- (v) Convener, Syllabus Committee for Applied and Industrial Chemistry (M.Sc. course), Mumbai University.
- (vi) Member of the Expert Committee for Advanced Inorganic Chemistry Course, Indira Gandhi National Open University, Delhi (1997).
- (vii) Honorary Professor of Chemistry, Homi Bhabha National Institute (deemed University) (Dec. 2006-2012), Senior Professor of HBNI (2012-2016).
- (viii) Member Board of Studies in Chemical Sciences, Home Bhabha National Institute, Mumbai (2007-2016).
- (ix) Member of the sub-committee constituted for preparing a five-year integrated course in chemistry for “DAE Centre of Excellence in Basic Sciences” Mumbai University (2006-2016).
- (x) Convenor of the Standing Academic Committee for Chemical Sciences, HBNI (2013-2016).
- (xi) Convener for CAT-I trainees course coordinator (2014-2015).

Scientific Mentor for Doctoral Research

Mumbai University PG 2303 of 1991 dated 5 th June 1991	Degree Awarded - Thesis submitted - Currently working-	Twenty two - -
Homi Bhabha National Institute	Degree awarded Thesis submitted Currently working	four - -
Rajasthan University	Degree Awarded	Two (in joint supervision with Prof. R. Bohra)

Scientific Mentor for Master's Degree

Mumbai University	Degree Awarded -	Seven
-------------------	------------------	-------

Publications: Please see the attached list

LIST OF PUBLICATIONS OF Dr. VIMAL K. JAIN

1. Synthesis and spectral studies of tris(1,3-diketonato)antimony(III).
V.K. Jain, R. Bohra and R.C. Mehrotra;
Synth. React. Inorg. Met.-Org. Chem., 9 (1979) 491-502.
2. Synthesis and spectral studies of (1,3-diketonato)triphenylantimony(V) complexes.
V.K. Jain, R. Bohra and R.C. Mehrotra;
J. Organometal. Chem., 184 (1980) 57-62.
3. Monothio- β -diketonates of antimony(III).
V.K. Jain, R. Bohra and R.C. Mehrotra;
Inorg. Chim. Acta, 44 (1980) L265-267.
4. Triphenylantimony(V) complexes with Schiff bases.
V.K. Jain, R. Bohra and R.C. Mehrotra;
Aust. J. Chem., 33 (1980) 2749-2752.
5. Synthesis and spectral studies of triphenylantimony(V) oximates and benzamidoximate.
V.K. Jain, R. Bohra and R.C. Mehrotra;
J. Indian Chem. Soc., 57 (1980) 408-410.
6. Synthesis and spectroscopic studies of trialkyl bis(iminoxy)stibines.
V.K. Jain, R. Bohra and R.C. Mehrotra;
Inorg. Chim. Acta, 51 (1981) 191-194.
7. Structure and bonding in organic derivatives of antimony(V).
V.K. Jain, R. Bohra and R.C. Mehrotra;
Structure and Bonding, 52 (1982) 147-196.
8. Triorganoantimony(V) complexes containing potentially dianionic tridentate Schiff bases.
V.K. Jain, R. Bohra and R.C. Mehrotra;
Indian J. Chem., 22A (1983) 445-446.
9. Alkylxanthates of phenylantimony(III).
R.K. Gupta, V.K. Jain, A.K. Rai and R.C. Mehrotra;
Indian J. Chem., 22A (1983) 708-709.
10. The stereochemistry of organotin(IV) oxinates in solution: Tin-119 nuclear magnetic resonance study of triorganotin(IV) oxinates.
H.C. Clark, V.K. Jain, I.J. McMahon and R.C. Mehrotra;
J. Organomet. Chem., 243 (1983) 299-303.
11. Organoplatinum(IV) compounds. I. Preparation and characterization of dimethylplatinum(IV) compounds with chelating nitrogen donor ligands. Crystal and molecular structures of dimethyl[bis(1-pyrazolyl)methane]platinum diiodide and dimethyl[bis(3,5-dimethylpyrazolyl)methane] platinum diiodide.
H.C. Clark, G. Ferguson, V.K. Jain and M. Parvez;
Organometallics, 2 (1983) 806-810.
12. Cleavage of the carbon-silicon bonds in trimethylsilylacetylenes by trans-[(PR₃)₂PtX(R'OH)]PF₆ cations and formation of cationic alkoxy carbene complexes of platinum(II).
H.C. Clark, V.K. Jain and G.S. Rao;
J. Organomet. Chem., 259 (1983) 275-282.
13. Platinum carbonyls and their use in homogeneous catalysis.
H.C. Clark and V.K. Jain;
Coord. Chem. Rev., 55 (1984) 151-204.
14. Alkylxanthates of phenylarsenic(III).
R.K. Gupta, A.K. Rai, R.C. Mehrotra and V.K. Jain;
Polyhedron, 3 (1984) 721-728.

15. Cyclic O, O-alkylenedithiophosphates of phenylarsenic and antimony.
R.K. Gupta, A.K. Rai, R.C. Mehrotra and V.K. Jain;
Inorg. Chim. Acta, 88 (1984) 201-207.
16. Organoplatinum(IV) compounds.2. Preparation and characterization of trimethylplatinum(IV) compounds containing chelating nitrogen donor ligands. Crystal and molecular structure of iodotrimethyl[bis(3,5-dimethyl-1-pyrazolyl)methane]platinum(IV).
H.C. Clark, G. Ferguson, V.K. Jain and M. Parvez;
J. Organometal. Chem., 270 (1984) 365-373.
17. Preparation and characterization of mercapto-bridged dinuclear platinum(II) complexes. Catalytic activity of [(PEt₃)PtCl(μ-SEt)]₂ / SnCl₂ .2H₂O system in hydrogenation and hydroformylation of styrene.
H.C. Clark, V.K. Jain and G.S. Rao;
J. Organometal. Chem., 279 (1985) 181-191.
18. Preparation and characterization of heterobimetallic halogen-bridged palladium-platinum complexes. Crystal and molecular structure of [(PEt₃)ClPd(μ-Cl)₂PtCl(PEt₃)].
H.C. Clark, G. Ferguson, V.K. Jain and M. Parvez;
Inorg. Chem., 24 (1985) 1477-1482.
19. Tin-119, phosphorus-31, carbon-13 and proton nuclear magnetic resonance and Mossbauer studies of mono-, di- and tri-organotin(IV) dialkyldithiophosphates.
H.C. Clark, V.K. Jain, R.C. Mehrotra, B.P. Singh, G. Srivastava and T. Birchall;
J. Organometal. Chem., 279 (1985) 385-394.
20. Phenylarsenic(III) and phenylantimony(III) bis(dialkyldithiophosphates) : Synthesis and multinuclear (¹H, ¹³C, ³¹P) NMR and mass spectral studies. Crystal and molecular structures of C₆H₅M[S₂P(OPrⁱ)₂]₂ [M = Sb(III) and As(III)].
R.K. Gupta, A.K. Rai, R.C. Mehrotra, V.K. Jain, B. F. Hoskins and E.R.T. Tiekink;
Inorg. Chem., 24 (1985) 3280-3284.
21. ¹⁵N, ¹³C and ¹¹⁹Sn NMR and other spectroscopic studies of 8-quinolinol, its O- and N-methyl derivatives and chelate di- and tri-organotin(IV) complexes.
V.K. Jain, J. Mason, B.S. Saraswat and R.C. Mehrotra;
Polyhedron, 4 (1985) 2089-2096.
22. Studies of chelation of 8-quinolinato ligand in triorganoantimony(V) complexes in solution by multinuclear (¹H, ¹⁵N, ¹³C) NMR and electronic spectroscopy.
V.K. Jain, J. Mason and R.C. Mehrotra;
J. Organometal. Chem., 309 (1986) 45-54.
23. Studies on some diorganotin(IV) complexes of bis- and tris-pyrazolyl and bis pyridyl methanes and pyridylpyrazolyles.
R. Visalakshi, V.K. Jain, S.K. Kulshreshtha and G.S. Rao;
Inorg. Chim. Acta, 118 (1986) 119-124.
24. Cleavage reactions of halogen-bridged heterobimetallic palladium-platinum complexes. Crystal and molecular structure of [(PBuⁿ₃)Cl₂Pd(Bu^tN=CHCH=NBu^t)PtCl₂(PBuⁿ₃)].
H.C. Clark, G. Ferguson, V.K. Jain and M. Parvez;
Inorg. Chem., 25 (1986) 3808-3811.
25. Preparation and characterization of triphenylarsenic(V) dioximates and benzamidoximate.
V.K. Jain, R. Bohra and R.C. Mehrotra;
Indian J. Chem., 25A (1986) 768-770.
26. Mixed chloro-mercapto-bridged dinuclear platinum(II) complexes and their catalytic activity in homogeneous hydrogenation.
V.K. Jain and G.S. Rao;
Inorg. Chim. Acta, 127 (1987) 161-167.

27. Preparation and characterization of some mixed ligand complexes of platinum(II).
H.C. Clark, A.B. Goel, V.K. Jain, K.G. Tyers and C.S. Wong;
J. Organometal. Chem., 321 (1987) 123-134.
28. The organic chemistry of platinum(IV).
V.K. Jain, G.S. Rao and L. Jain;
Adv. Organometal. Chem., 27 (1987) 113-168.
29. Preparation and characterization of mercapto-bridged homo- and hetero-binuclear palladium and platinum complexes.
V.K. Jain
Inorg. Chim. Acta, 133 (1987) 261-266.
30. Synthesis and spectral studies of diorganotin(IV) dialkyldithiophosphates.
R. Visalakshi, V.K. Jain and G.S. Rao;
Spectrochim. Acta, 43A (1987) 1235-1240.
31. Preparation and characterization of some organoplatinum(IV) complexes containing pyridylpyrazoles.
V.K. Jain;
Indian J. Chem., 26 A (1987) 1019-1022.
32. Synthesis and IR and NMR spectral studies on some triorganotin(IV) compounds containing 2-pyridylcarbinols.
R. Visalakshi, V.K. Jain and G. S. Rao;
Indian J. Chem., 27 A (1988) 427-429.
33. Synthesis and characterization of lanthanide tris-cyanoacetates.
M.A. Vaidya, G.S. Deshpande, V.K. Jain and S.C. Jain;
Inorg. Chim. Acta, 143 (1988) 123-130.
34. The Chemistry of platinum(I).
V.K. Jain
Rev. Inorg. Chem. 9 (1988) 299-344.
35. Synthesis, reactivity and redistribution reactions of homo- and hetero-binuclear palladium(II) and platinum(II) complexes.
V.K. Jain
Proc. Indian Natn. Sci. Acad., 55A (1989) 273-292.
(Lecture delivered at the 1st Indo-Soviet Symposium on organometallic chemistry, Rajasthan University, Jaipur).
36. Complexes of aluminum with aminopolycarboxylic acids: Al-27 NMR and potentiometric studies.
R.K. Iyer, S.B. Karweer and V.K. Jain
Magnet. Reson. Chem., 27 (1989) 328-334.
37. Diorganotin(IV) dialkyldithiophosphates: Synthesis and spectral studies of diorgano(hydroxo) tin(IV)dialkyldithiophosphates.
C.S. Parulekar, V.K. Jain and T.K. Das
Phosphorus, sulfur and silicon, 46 (1989) 145-151.
38. Preparation and characterization of diorganotin(IV) compounds containing neutral bidentate nitrogen donor ligands.
R. Visalakshi, V.K. Jain, S.K. Kulshreshtha and G.S. Rao
Indian J. Chem., 28A (1989) 51-54.
39. Synthesis and characterization of diorgano(chloro)tin(IV) 2-pyridylalkoxides.
R. Visalakshi, V.K. Jain, S.K. Kulshreshtha and G.S. Rao
Indian J. Chem., 28A (1989) 767-770.
40. Molybdenum carbonyl complexes containing 2-thienylphosphines.
V.K. Jain, V.S. Sagoria and M.S. Gill
Indian J. Chem., 28A (1989) 164-166.

41. Structural chemistry of organotin carboxylates II. The crystal structure of the dicarboxylato tetraorganodistannoxane $[\{\text{Bu}_2\text{Sn}(\text{O}_2\text{CC}_5\text{H}_4\text{N})\}_2\text{O}]_2$.
C.S. Parulekar, V.K. Jain, T.K. Das, A.R. Gupta, B.F. Hoskins and E.R.T. Tiekink.
J. Organomet. Chem., 372 (1989) 193-199.
42. Dinuclear palladium(II) complexes with bridging mercapto group: X-ray crystal structure of a chloro/mercapto bridged dimer.
V.K. Jain, R.P. Patel, K.V. Muralidharan and R. Bohra
Polyhedron, 8 (1989) 2151-2155.
43. Dinuclear complexes of platinum(II).
V.K. Jain
Current Science, 59 (1990) 143-151.
44. Structural chemistry of organotin carboxylates. IV. Synthesis and spectroscopic properties of diorganotin(IV) complexes with o-anisic acid. The crystal and molecular structure of $[\{\text{Bu}_2\text{Sn}(2\text{-MeOC}_6\text{H}_4\text{COO})\}_2\text{O}]_2$
C.S. Parulekar, V.K. Jain, T.K. Das and E.R.T. Tiekink
J. Organomet. Chem., 387 (1990) 163-173.
45. Synthesis and spectral studies of trimethylplatinum(IV) dialkyldithiophosphates.
R. Visalakshi and V.K. Jain
Trans. Met. Chem., 15 (1990) 278-282.
46. Methylplatinum(II) complexes containing 2-(diphenylphosphino)pyridine (Ph_2Ppy). Crystal and molecular structure of $[\text{PtMe}(\eta^2\text{-Ph}_2\text{Ppy})(\text{Ph}_2\text{Ppy})][\text{BPh}_4]$.
V.K. Jain, V.S. Jakkal and R. Bohra
J. Organomet. Chem., 389 (1990) 417-426.
47. Some aspects of organometallic chemistry of platinum.
V.K. Jain
Metalloorg. Khim., 3 (1990) 754-767. [English version in: *Organometallic Chemistry in the USSR*, 3(1990) 378-385.
(Lecture delivered at II Indo-Soviet Symposium on organometallic Chemistry, Irkutsk, June 1989).
48. Structural chemistry of organotin carboxylates. VI. Characterization of $[\{\text{R}_2\text{Sn}(\text{O}_2\text{CR}')\}_2\text{O}]_2$, (R = Me, Et, Pr^n and Bu^n , R' = thiophene and furan). X-ray crystal structure of $[\{\text{Bu}^n_2\text{Sn}(\text{O}_2\text{CC}_4\text{H}_3\text{S})\}_2\text{O}]_2$.
C. Vatsa, V.K. Jain, T.K. Das and E.R.T. Tiekink
J. Organomet. Chem., 396 (1990) 9-18.
49. Phosphorus-31 and platinum-195 NMR studies of carboxylato bridged dinuclear platinum(II) complexes.
S. Kannan and V.K. Jain
Magnetic Resonance in Chemistry, 28 (1990) 1007-1010
50. Synthesis and properties of diorganotin(IV) derivatives of dibutylphosphoric acid.
C. Vatsa, V.K. Jain and T.K. Das
Main Group Metal Chemistry, 13 (1990) 279-295.
51. Preparation and characterization of phenylselenolato-bridged dinuclear platinum(II) complexes.
V.K. Jain and S. Kannan
J. Organomet. Chem., 405 (1991) 265-271.
52. Dinuclear platinum(II) complexes with a bridging mercapto group: X-ray crystal structure of a chloro/mercapto-bridged dimer.
V.K. Jain, R.P. Patel and K. Venkatasubramanian
Polyhedron, 10 (1991) 851-857.
53. Structural chemistry of organotin carboxylates IX. Synthesis and characterization of n-butyltin (oxo) carboxylates: $[\text{Bu}^n\text{Sn}(\text{O})(\text{O}_2\text{CR}')_6]$ R' = Pr^i , Bu^t , and the crystal structure of the latter.
V.B. Mokul, V.K. Jain and E.R.T. Tiekink
J. Organomet. Chem., 407 (1991) 173-180.

54. Structural chemistry of organotin carboxylates. X. Synthesis and characterization of $[\{R_2Sn(O_2CBu^t)\}_2O]_2$ (R = Me, Et, Prⁿ, Buⁿ). X-ray crystal structures of $[\{R_2Sn(O_2CBu^t)\}_2O]_2$ (R = Me, Et).
C. Vatsa, V.K. Jain, T.K. Das and E.R.T. Tiekink
J. Organomet. Chem., 408 (1991) 157-166.
55. Structural chemistry of organotin carboxylates. XII. Synthesis and characterization of diorganotin(IV) carboxylates containing 2-thiophene or 2-furan carboxylic acid. Crystal structure of $[Et_2Sn(O_2CC_4H_3S)_2]$.
C. Vatsa, V.K. Jain, T.K. Das and E.R.T. Tiekink
J. Organomet. Chem., 410 (1991) 135-142.
56. Diorganotin(IV) complexes with pyridine-2 and pyrazine carboxylic acids.
C. Vatsa, V.K. Jain and T.K. Das
Indian J. Chem., 30A (1991) 451-453.
57. Diaryloxytetraorganodistannoxanes: Synthesis and characterization by IR and NMR (¹H, ¹³C and ¹¹⁹Sn) spectroscopy. Crystal structure of $[\{Bu^n_2Sn(OC_6H_4OMe-2)\}_2O]_2$
C. Vatsa, V.K. Jain, T.K. Das and E.R.T. Tiekink
J. Organomet. Chem., 418 (1991) 329-338.
58. Structural chemistry of organotin carboxylates. XVI. Structural variation in dicarboxylato tetraorganostannoxanes: Crystal structure of $\{[Me_2Sn(O_2C-C_4H_3S)]_2O\}_2$.
C. Vatsa, V.K. Jain, T.K. Das and E.R.T. Tiekink,
J. Organomet. Chem., 421 (1991) 21-28.
59. Preparation and characterization of aryltelluroolato-bridged dinuclear complexes of platinum(II).
V.K. Jain and S. Kannan
J. Organomet. Chem., 418 (1991) 349-357.
60. Synthesis and characterization of trimethylplatinum(IV) complexes with diphenyldithiophosphinic acid. Crystal and molecular structures of $[PtMe_3(SSPPh_2)]_2$ and $[PtMe_3(py)(SSPPh_2)]$.
S. Chaudhury, V.K. Jain, V.S. Jakkal and K. Venkatasubramanian
J. Organomet. Chem., 424 (1992) 115-125.
61. Synthesis and characterization of dinuclear platinum(II) complexes containing both μ -pyrazolato-N,N and group 16 donors (ER'; E = O,S,Se,Te) as bridging ligands.
V.K. Jain and S. Kannan
Polyhedron, 11 (1992) 27-31.
62. Trimethylplatinum(IV) complexes with diphenylthiophosphinic acid.
S. Chaudhury and V.K. Jain
Indian J. Chem., 31A (1992) 131-133.
63. Dinuclear platinum(II) complexes having bridging aryltelluroolato ligand. X-ray crystal structure of $[Pt_2Cl_2(\mu-Cl)(\mu-TePh)(PBu^n_3)_2]$.
V.K. Jain, S. Kannan and R. Bohra
Polyhedron, 11 (1992) 1551-1557.
64. Trimethylplatinum(IV) complexes with N,N'-dialkyl-1,2-diiminoethane.
V.K. Jain and S. Chaudhury
J. Coord. Chem., 26 (1992) 63-68.
65. Structural chemistry of organotin carboxylates. XVIII. Synthesis, characterization and X-ray crystal structure of bis(μ -hydroxo)-bis[di-t-butyltin(IV) acetate] : $[Bu^t_2Sn(O_2CCH_3)(\mu-OH)]_2$.
V.B. Mokal, V.K. Jain and E.R.T. Tiekink
J. Organomet. Chem., 431 (1992) 283-288.
66. Pyrazolato-bridged binuclear palladium(II) compounds: Synthesis and crystal structure.
V.K. Jain, S. Kannan and E.R.T. Tiekink.
J. Chem. Soc. Dalton Trans., (1992) 2231-2234.

67. Dinuclear palladium(II) complexes with both thiolato and pyrazolato-bridged ligands: Synthesis and characterization.
V.K. Jain and S. Kannan
J. Chem. Research (S), (1992) 278-279.
68. NMR spectral studies of $[\text{Me}_2\text{Sn}\{\text{XYP}(\text{OBu}^n)_2\}_2]$ (X, Y = O or S).
V.K. Jain, T.K. Das, C. Vatsa and M.E. Smith
Spectrochim. Acta, 48A (1992) 1583-1587.
69. Synthesis and characterization of dinuclear palladium(II) complexes containing both chloro and organochalcogenides as bridging ligands.
V.K. Jain and S. Kannan
J. Organomet. Chem., 439 (1992) 231-235.
70. Synthesis and spectroscopic studies of di-*s* and *t*-butyltin(IV) carboxylates.
V.K. Jain and V.B. Mokal
Indian J. Chem., 31A (1992) 861-864.
71. Solution behaviour and redistribution reactions of tetraorganodistannoxane dimers.
V.K. Jain, V.B. Mokal and P. Sandor
Mag. Resonance Chem., 30 (1992) 1158-1163.
72. Steric effects on the formation of isolable products in the reactions of dibutyltin oxides with carboxylic acids.
V.B. Mokal and V.K. Jain
J. Organomet. Chem., 441 (1992) 215-226.
73. Cyclopentadienylruthenium(II) dialkyldithiophosphate and diphenyldithiophosphate complexes.
V.K. Jain
Transition Metal Chem., 18 (1993) 312-314.
74. Binuclear pyrazolato-bridged organoplatinum(II) complexes: Synthesis and characterization.
A. Singhal, V.K. Jain and S. Kannan
J. Organomet. Chem., 447 (1993) 317-322.
75. Synthesis and characterization of trimethylplatinum(IV) complexes with (2-dimethylaminoethyl) organochalcogenides ($\text{Me}_2\text{NCH}_2\text{CH}_2\text{ER}$; E = S, Se, Te). X-ray crystal structure of $[\text{PtMe}_3\text{Br}(\text{Me}_2\text{NCH}_2\text{CH}_2\text{SC}_6\text{H}_4\text{Me}-4)]$.
V.K. Jain, S. Chaudhury and R. Bohra
Polyhedron, 12 (1993) 2377-2385.
76. Synthesis and characterization of thiolato- and selenolato- platinum(II) complexes with bis(diphenylphosphino)alkanes.
V.K. Jain, S. Kannan, R.J. Butcher and J.P. Jasinski
J. Chem. Soc. Dalton Trans., (1993) 1509-1513.
77. A convenient synthesis of dinuclear methylpalladium(II) complexes.
A. Singhal and V.K. Jain
J. Chem. Soc. Dalton Trans., (1993) 1515-1517.
78. Binuclear pyrazolato-bridged platinum(II) complexes: Synthesis, characterization and crystal structure.
V.K. Jain, S. Kannan and E.R.T. Kiekink
J. Chem. Soc. Dalton Trans., (1993) 3625-3628.
79. Synthesis and characterization of hydridocarbonyl bis(triphenylphosphine)ruthenium(II) dialkyldithiophosphates
V.K. Jain
Indian J. Chem., 32A (1993) 1034-1036.
80. Synthesis and characterization of organoplatinum(II) dithiolate complexes of the type $[\text{PtAr}(\text{SS})(\text{PMePh}_2)]$.
V.K. Jain and S. Chaudhury
J. Organomet. Chem., 468 (1994) 279-283.

81. Synthesis and characterization of binuclear arylthiolato- and phenylselenolato-bridged organoplatinum(II) complexes: crystal structure of $[\text{Pt}_2\text{Ph}_2(\mu\text{-SPh})_2(\text{PMe}_2\text{Ph})_2]$.
V.K. Jain, S. Kannan, R.J. Butcher and J.P. Jasinski
J. Organometal. Chem., 468 (1994) 285-290.
82. Mononuclear platinum(II) complexes with organochalcogenides.
V.K. Jain, S. Kannan and E.R.T. Tiekink
J. Chem. Research (S), (1994) 85; *J. Chem. Research (M)*, (1994) 501-532.
83. Synthesis and characterization of diorganotin diethylphosphorothioates. Crystal structures of $([\text{Me}_2\text{Sn}\{\text{O}(\text{S})\text{P}(\text{OEt})_2\}]_2\text{O})_2$ and $[\text{Bu}^t_2\text{Sn}(\mu\text{-OH})\{\text{O}(\text{S})\text{P}(\text{OEt})_2\}]_2$.
V.B. Mokal, V.K. Jain and E.R.T. Tiekink
J. Organomet. Chem. 471 (1994) 53-61.
84. Synthesis and characterization of chloro-pyrazolato bridged binuclear organoplatinum(II) complexes. Single crystal structure of $[\text{Pt}_2\text{Ph}_2(\mu\text{-Cl})(\mu\text{-pz})(\text{PMe}_2\text{Ph})_2]$.
A. Singhal, V.K. Jain, R.P. Patel, A. Vyas and R. Bohra
J. Organomet. Chem., 479 (1994) 87-91.
85. Synthesis and characterization of methylplatinum(II) O,O'- dialkyldithiophosphates. Crystal structure of $[\text{PtMe}\{\text{S}_2\text{P}(\text{OPr}^i)_2\}(\text{AsPh}_3)]$.
V.K. Jain, S. Chaudhury, A. Vyas and R. Bohra
J. Chem. Soc. Dalton Trans., (1994) 1207-1211.
86. Tricarbonyl(η^6 -phenyltrimethylsilane)molybdenum.
E.C. Alyea, G. Ferguson and V.K. Jain
Acta Cryst., C 50 (1994) 491-493.
87. Tetracarbonyl[1-phenyl-N-(2-pyridylmethylidene)ethylamine-N,N']molybdenum(0).
E.C. Alyea, G. Ferguson and V.K. Jain
Acta Cryst., C 50 (1994) 854-857.
88. The chemistry and applications of organotin(IV) complexes of phosphorus-based acids.
V.K. Jain
Coord. Chem. Rev., 135/136 (1994) 809-843.
89. Triazenido-bridged binuclear palladium(II) and platinum(II) complexes.
A. Singhal and V.K. Jain
Polyhedron, 14 (1995) 285-291.
90. Synthesis and characterization of dimeric organochalcogenide-bridged methylpalladium and allylpalladium complexes.
A. Singhal and V.K. Jain
J. Organomet. Chem., 494 (1995) 75-80.
91. Diorganotin(IV) dialkoxylphosphinothioates: Synthesis and characterization
V.B. Mokal and V.K. Jain.
Bull. Chem. Soc. Japan, 68 (1995) 1149-1154.
92. Synthesis and characterization of dibutylgermanium dialkylthiophosphates.
S.S. Garje, V.B. Mokal and V.K. Jain
Indian J. Chem., 34A (1995) 809-810.
93. Triorganoantimony(V) bis(dialkylthiophosphates): Synthesis and characterization.
S.S. Garje and V.K. Jain
Main Group Metal Chem., 18 (1995) 387-390.
94. Binuclear complexes of palladium(II) and platinum(II) containing bridging ethylselenolato group. X-ray crystal structure of $[\text{Pt}_2\text{Cl}_2(\mu\text{-SeEt})_2(\text{PEt}_3)_2]$.
V.K. Jain, S. Kannan, R.J. Butcher and J.P. Jasinski
Polyhedron, 14 (1995) 3641-3647.

95. Preparation and characterization of O, O'-dialkyldithiophosphate complexes of methylplatinum(II).
V.K. Jain and S. Chaudhury
Polyhedron, 15 (1996) 1685-1689.
96. A multinuclear NMR investigation of some tricarbonyl molybdenum(0) complexes of Group 14 substituted arene ligands.
E.C. Alyea and V.K. Jain
Polyhedron, 15 (1996) 433-438.
97. Synthesis, IR and multinuclear (^1H , ^{13}C , ^{31}P , ^{95}Mo) NMR investigation of molybdenum and tungsten carbonyl complexes containing bidentate nitrogen donor ligands.
E.C. Alyea and V.K. Jain
Polyhedron, 15 (1996) 1723-1730.
98. Observation of negative remanence in an organic ferromagnet.
S.A. Chavan, J.V. Yakhmi, R. Ganguly and V.K. Jain
Current Science, 70 (1996)234-237.
99. Magnetization behaviour of $[\text{NBu}_4]_2[\text{Mn}_2(\text{CuOpba})_3]$ and related solvated ferromagnets.
S.A. Chavan, R. Ganguly, V.K. Jain and J.V. Yakhmi.
J. Applied Physics, 79 (1996) 5260-5262.
100. Synthesis and characterization of organoarsenic(III) dialkylthiophosphates.
S.S. Garje and V.K. Jain
Main Group Met. Chem., 19 (1996) 355-360.
101. Synthesis and characterization of arene-ruthenium(II) dialkyldithiophosphate complexes: Single crystal structure of $[\text{Ru}\{\text{SSP}(\text{OEt})_2\}(\eta^6\text{-p-cymene})(\text{PPh}_3)][\text{BPh}_4]$.
V.K. Jain and V.S. Jakkal
J. Organomet. Chem., 515 (1996) 81-87.
102. Synthesis and characterization of palladium(II) and platinum(II) complexes containing substituted hydrazines.
A. Singhal and V.K. Jain
J. Chem. Res. (S), (1996) 246-247.
103. Binuclear palladium(II) complexes containing bridging pyrazolate and organochalcogenide ligands. The crystal structure of $[\text{Pd}_2\text{Cl}_2(\mu\text{-pz})(\mu\text{-SePh})(\text{PBu}_3)_2]$.
V.K. Jain, S. Kannan, R.J. Butcher and J.P. Jasinski
J. Chem. Res. (S), (1996) 284-285; *J. Chem. Res. (M)* (1996) 1619-1648).
104. Synthesis and characterization of palladium(II) and platinum(II) complexes with (dimethylaminoethyl) organochalcogenides. X-ray crystal structure of $[\text{PtCl}_2(\text{PhSeCH}_2\text{CH}_2\text{NMe}_2)]\cdot\text{H}_2\text{O}$.
S. Chaudhury, V.K. Jain and R.P. Patel
J. Chem. Res. (S), (1996) 486-487; *J. Chem. Res. (M)*, (1996) 2801-2816.
105. Mono-, bi- and high-nuclearity organotin complexes.
V.K. Jain
Proceedings of Indian Academy of Sciences, 108 (1996) 165-174.
(Lecture delivered at the 6th Modern Trends in Inorganic Chemistry, held in Hyderabad).
106. Synthesis and characterization of binuclear palladium(II) and platinum(II) complexes with bridging hydroxypyridinate ligand.
V.K. Jain
Trans. Met. Chem., 21 (1996) 494-497.
107. Synthesis and characterization of mono- and bi- nuclear palladium(II) and platinum(II) complexes containing acetamidine ligands.
A. Singhal and V.K. Jain
Can. J. Chem., 74 (1996) 2018-2025.
108. Synthesis and characterization of alkylarsenic(III) dialkyl-mono- and di-thiophosphates
S.S. Garje and V.K. Jain
Main Group Metal Chemistry, 20 (1997) 217-222.

109. Synthesis and characterization of dialkyldithiophosphate complexes of gallium(III).
D. Pahari and V. K. Jain
Main Group Met. Chem., 20 (1997) 691-696.
110. Synthesis and characterization of triorgano-arsenic(V) and antimony(V) complexes of 2-pyridinol and 2-methoxyphenol
S.S. Garje and V.K. Jain
Main Group Metal Chem., 20 (1997) 755-760.
111. Synthesis and characterization of methylpalladium(II) dithiolate complexes of the type $[PdMe(SS)(ER_3)]$ ($SS = S_2CNR_2, S_2COEt, S_2P(OR)_2, S_2PPh_2$; $ER_3 = PMePh_2, PPh_3, AsPh_3$).
S. Narayan, V.K. Jain and S. Chaudhury
J. Organomet. Chem., 530 (1997) 101-104.
112. Synthesis and characterization of organoarsenic(III) xanthates and dithiocarbamates. X-ray crystal structures of $RAs(SSCNEt_2)_2$ R = Me and Ph
S.S. Garje, V.K. Jain and E.R.T. Tiekink
J. Organomet. Chem., 538 (1997) 129-134.
113. Synthesis and characterization of cyclometallated palladium(II) dithiolate complexes of the type $[Pd(EC)(SS)]$
S. Narayan, V.K. Jain and R.J. Butcher
J. Organomet. Chem. 549 (1997) 73-80.
114. Synthesis and characterization of triorganoarsenic(V) and antimony(V) diphenylphosphinates.
S.S. Garje and V.K. Jain
Main Group Metal Chem., 21 (1998) 77-83.
115. Synthesis and characterization of dialkyldithiophosphate complexes of indium(III).
D. Pahari, V. K. Jain and R. P. Patel
Main Group Metal Chem., 21 (1998) 261-270.
116. Mixed oxydiethanethiolate/ dithiophosphate complexes of Indium(III).
D. Pahari, V. K. Jain and E. R. T. Tiekink
Main Group Metal Chem., 21 (1998) 293-299.
117. Binuclear platinum(II) complexes of the type $[Pt_2Cl_2(\mu-L)(\mu-pz)(PR_3)_2]$ ($L = SC_5H_4N$ or $S_2P(OR')_2$)
S. Narayan and V. K. Jain
Trans. Met. Chem., 23 (1998) 435-437.
118. Chemistry of palladium and platinum with selenium and tellurium ligands.
V. K. Jain, A. Singhal and S. Narayan
Phosphorous Sulfur and Silicon, 136-138 (1998) 483-488.
119. Synthesis and structure of binuclear complexes of palladium and platinum containing bridging diphenylphosphinate ligand
V.K. Jain and R.J. Butcher
Polyhedron, 17 (1998) 1317-1322.
120. Synthesis and structural characterization of chalcogenido-bridged trinuclear palladium(II) dialkyldithiophosphates, $[Pd_3(\mu_3-E)_2\{S_2P(OR)_2\}_2(PR'_3)_2]$ ($E = S$ or Se ; $R = Et, Pr^i, Pr^t, Bu^s$ and $R' = Ph, Et$).
S. Narayan, V.K. Jain and R.J. Butcher
Polyhedron, 17 (1998) 2037-2042.
121. Amidinato- and triazenido-bridged binuclear complexes of palladium and platinum.
A. Singhal, V.K. Jain, M. Nethaji, A. Samuelson, D. Jayaprakash and R.J. Butcher
Polyhedron, 17 (1998) 3531-3540.
122. Pyridine-2-selenolate complexes of palladium and platinum: X-ray crystal structure of $[PdCl_2(PPr^i_3)(Sepy)PdCl(PPr^i_3)]$.
S. Narayan, V. K. Jain and B. Varghese.
J. Chem. Soc. Dalton trans., (1998) 2359-2366.

123. Arsacycloalkanes: synthesis, characterization and their palladium and platinum complexes. X-ray structure of $[\text{PdCl}_2(\text{PhAsCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2)_2]$.
S. S. Garje, V. K. Jain and Babu Varghese
Applied Organomet. Chem., 13(1999) 47-51.
124. Synthesis and characterization of bi(diphenylphosphino)acetylene bridged binuclear platinum complexes with terminal organochalcogenide groups. X-ray crystal structure of $[\text{Pt}_2(\text{SC}_6\text{F}_5)_4(\mu\text{-Ph}_2\text{PC}\equiv\text{CPh}_2)_2]$.
A. Singhal, V.K. Jain and R.J. Butcher
J. Coord. Chem., 46 (1999) 355-363.
125. Synthesis and characterization of mono- and bi-nuclear palladium and platinum complexes with organochalcogenides.
A. Singhal, V. K. Jain, B. Varghese and E. R. T. Tiekink
Inorg. chim. Acta, 285 (1999) 190-196.
126. The chemistry of organoarsenic, -antimony and bismuth compounds: An over view.
S. S. Garje and V. K. Jain
Main Group Metal Chem., 22 (1999) 45-58.
127. Chloro(diethyldithiophosphato-S,S')(triphenylphosphine-P)palladium(II).
K. Panneerselvam, T. H. Lu, S. F. Tung, S. Narayan and V. K. Jain
Acta Cryst., C55 (1999) 541-543.
128. Crystal structure of bis(triphenylphosphine)palladium(II) isopropylidithiophosphate.
K. Panneerselvam, T. H. Lu, S. F. Tung, S. Narayan and V. K. Jain
Analytical Sciences, 15 (1999) 497-498.
129. Synthesis and characterization of monomeric palladium(II) pyridine-2-chalcogenolate complexes.
S. Narayan, V.K. Jain, K. Panneerselvam, T.H. Lu and S.F. Tung
Polyhedron, 18 (1999) 1253-1258.
130. A carbon-13 NMR study of structurally characterized 1,3-dicarboxylato tetraorganodistannoxanes.
V.K. Jain, V.B. Mokal and C.V.V. Satyanarayana
Indian J. Chem., 38A (1999) 249-255.
131. Platinum(II) pyridine-2-thiolate and selenolate complexes.
S. Narayan and V. K. Jain
Trans. Metal Chem., 24 (1999) 409-413.
132. Synthesis and characterization of pentamethylcyclopentadienylrhodium(III) dialkyldithiophosphate complexes: Single crystal structure of $[\text{Cp}^*\text{RhCl}\{\text{S}_2\text{P}(\text{OEt})_2\}]$.
V. K. Jain and B. Varghese
J. Organomet. Chem., 584 (1999) 159-163.
133. Trinuclear complexes of palladium(II) containing bridging thiolate and pyrazolate ligands.
A. Singhal and V. K. Jain
J. Chem. Res. (S), (1999) 440-441.
134. Role of ligand bite in stabilizing binuclear palladium(II) and platinum(II) complexes.
V. K. Jain
Advances in Metallo-Organic Chemistry. Ed, R. Bohra, RBSA Publishers, Jaipur (1999) 141-149.
135. Synthesis and characterization of multinuclear complexes containing $[\text{Pt}_2(\mu\text{-S})_2(\text{Ptol}_3)_4]$ as a metallo-ligand.
Sanjay Narayan and V. K. Jain
Trans. Metal Chem., 25 (2000) 400-403.
136. Organochalcogenido-bridged dimeric allylpalladium complexes: Synthesis, structure and their transformation into palladium chalcogenides.
Singhal, V.K. Jain, R. Mishra and B. Varghese
J. Materials Chem., (2000) 1121-1124.

137. Crystal structure of bis(O,O-diisopropylphosphoro dithioato-kS,kS)bis[μ -(2-mercapto-kS)ethoxy-kO] ethanethiolato(2-)kS:kS]-diindium [(PrⁱO)₂PS₂In(SCH₂CH₂OCH₂CH₂S)₂InS₂P(OPrⁱ)₂].
D. Pahari, V.K. Jain and E.R.T. Tiekink
Z. Kristallogr., NCS, 215 (2000) 447-448.
138. Palladium and platinum organochalcogenolates and their transformation into metal chalcogenides.
S. Dey, S. Narayan, A. Singhal and V.K. Jain
Proc. Indian Acad. Sci. (Chem. Sci.), 112 (2000) 187-196
(Lecture delivered during MTIC-8, I.I.Sc., Bangalore).
139. Diphenylphosphinates of tributylantimony(V).
H. Mahalakshmi, V.K. Jain and E.R.T. Tiekink
Main Group Met. Chem., 23 (2000) 519-524.
140. Molecules to materials: Platinum group metals organochalcogenolates to metal chalcogenides.
V.K. Jain
J. Indian Chem. Soc., 77 (2000) 523-530 (Lecture delivered during "International Conference on Chemistry and 36th Annual Convention of Chemists", Calcutta 11-16 December, 1999).
141. Synthesis and characterization of phosphinic and phosphate complexes of gallium(III) and indium(III).
D.P. Dutta and V.K. Jain
Phosphorus, Sulfur & Silicon, 166 (2000) 15-26.
142. Preparation and characterization of platinacycloalkanes containing nitrogen donor ligands.
V.K. Jain, H.C. Clark and L. Jain
Indian J. Chem., 39A (2000) 974-979.
143. Tertiary phosphines containing 2-thienyl group and their coordination chemistry.
V.K. Jain, H.C. Clark and Leela Jain
Indian J. Chem., 40A (2001) 135-143.
144. Synthesis and characterization of benzylselenolate complexes of palladium(II) and platinum(II).
S. Dey, V.K. Jain and B. Verghese
J. Organomet. Chem., 623 (2001) 48-55.
145. 2-(N,N-Dimethylamino)ethylselenolates of palladium(II) : Synthesis, structure, spectroscopy and their transformation into palladium selenide.
S. Dey, V.K. Jain, S. Chaudhury, A. Knoedler, F. Lissner and W. Kaim
J. Chem. Soc. Dalton Trans., (2001) 723-728.
146. Crystal structure of bis(diphenylphosphino)ethane bi(2-selenopyridinato) platinum(II).
N. K. Lokanath, H.C. Devarajegowda, S.M. Anandalwar, S.J. Prasad, S. Narayan and V. K. Jain
Analytical Sciences (Japan), 17 (2001) 565-566.
147. X-ray structures of dichlorotri(pentafluorophenyl) antimony(V) and dibromotri(pentafluorophenyl) antimony (V).
H. Mahalakshmi, V.K. Jain and E.R.T. Tiekink
Main Group Met. Chem., 24 (2001) 391-392.
148. Some chemistry of organo-arsenic and -antimony compounds.
V.K. Jain
J. Indian Chem. Soc., 78 (2001) 224-229.
(Prof. S.S. Sandhu Award - 1999, lecture delivered during 37th Convention of Chemists, 2000).
149. Synthesis of tertiary arsines containing N,N-dimethyl aminobenzyl group.
S. S. Garje and V. K. Jain
Indian J. Chem., 40A (2001) 983-985.
150. Indium tris-N-methylpiperazinylcarbodithioate, synthesis, structure and its transformation into indium Sulfide.
D.P. Dutta, V.K. Jain, S. Chaudhury and E.R.T. Tiekink
Main Group Metal Chem., 24 (2001) 405-408.

151. Platinum(II) complexes of 2-(N,N-dimethylamino)ethylselenolate : Donor-acceptor inter ligand interactions as evident from experimental and TD-DFT computational analysis.
S. Dey, V.K. Jain, A. Knoedler, W. Kaim and S. Zalis
Eur. J. Inorg. Chem., (2001) 2965-2973.
152. Tri(2-thienyl)arsine oxide
H. Mahalakshmi, V.K. Jain and E.R.T. Tiekink
Acta Cryst., E57 (2001) 1222-1223.
153. N-pyridinium dichlorophosphinomethylides.
R.K. Bansal, N. Gupta, M. Baweja, L. Hemrajani and V.K. Jain
Heteroatom Chemistry, 12 (2001) 602-609.
154. Stereo and regioselectivity in Diels-Alder reactions of 1,3-Azaphospholo[1,5- α]pyridines and -[5,1- α]isoquinolines.
R.K. Bansal, V.K. Jain, N. Gupta, N. Gupta, L. Hemrajani, M. Baweja and P.G. Jones
Tetrahedron, 58 (2002) 1573-1579.
155. Synthesis and characterization of palladium(II) complexes containing N-pyridinodithiophosphinates.
V.K. Jain, L. Hemrajani and R.K. Bansal
Indian J. Chem., 41A (2002) 550-553.
156. Azaphosphole complexes of ruthenium and rhodium: Synthesis and characterization.
V.K. Jain, L. Hemrajani and R.K. Bansal
Indian J. Chem., Sec. A, 41A (2002) 506-512.
157. Preparation and characterization of tris(iso-propyl)stibine complexes of palladium and platinum.
P.P. Phadnis, V.K. Jain and B. Varghese
Appl. Organomet. Chem., 16 (2002) 61-64.
158. Triorganoantimony(V) complexes with internally functionalized oximes: Synthetic, spectroscopic and structural aspects of $[R_3Sb(Br)L]$, $[R_3Sb(OH)L]$, $[R_3SbL_2]$, crystal and molecular structures of $[Me_3Sb\{ON=C(Me)C_4H_3O\}_2]$, $[Me_3Sb\{ON=C(Me)C_4H_3S\}_2]$, 2-OC₄H₃C(Me)=NOH and 2-SC₄H₃C(Me)=NOH.
A. Gupta, R.K. Sharma, R. Bohra, V.K. Jain, J.E. Drake, M.B. Hursthouse and M.E. Light
J. Organomet. Chem., 645 (2002) 118-126.
159. Dithiocarbamates of gallium(III) and indium(III): synthesis, spectroscopy and structures.
D.P. Dutta, V.K. Jain, A. Knoedler and W. Kaim
Polyhedron, 21 (2002) 239-246.
160. Triorganotin(IV) complexes derived from internally functionalized oximes.
Vinita Sharma, R.K. Sharma, R. Bohra and V.K. Jain
Main Group Met. Chem., 25 (2002) 445-448.
161. Synthesis, spectroscopic and structural aspects of some tetraorganodistannoxanes with internally functionalized oxime: Crystal and molecular structures of $[R_2Sn(ON=C(Me)py)_2O]_2$ (R=Buⁿ and Et) and 2-NC₃H₄C(Me)=NOH
V. Sharma, R.K. Sharma, R. Bohra, R. Ratnani, V.K. Jain, J.E. Drake, M.B. Hursthouse and M.E. Light
J. Organomet. Chem., 651 (2002) 98-104.
162. Tripropylarsine complexes of palladium(II) and platinum(II) : synthesis, spectroscopy and structures
P.P. Phadnis, V.K. Jain, A. Knoedler and W. Kaim
Z. Anorg. Allg. Chem., 628 (2002) 1332-1338.
163. Structural basis for unusually long-wavelength ligand-to-ligand charge transfer in complexes $[MCl(ECH_2CH_2NMe_2)(PR_3)]$ (E = Se, Te; M = Pd, Pt) : Experimental results and TD-DFT calculations.
S. Dey, V.K. Jain, A. Knoedler, A. Klein, W. Kaim and S. Zalis
Inorg. Chem., 41 (2002) 2864-2870.
164. Dimethylplatinum(II) and tetramethylplatinum(IV) complexes of 1-methyl(2-alkylthiomethyl)-1H benzimidazoles: Experimental and DFT calculated structures and NMR spectra.
Knoedler, W. Kaim, V.K. Jain and S. Zalis
J. Organomet. Chem., 655 (2002) 218-226.

165. Synthesis and characterization of organogallium complexes using dialkyl-dithio, monothio and oxy-phosphate ligands.
N. Prasad, D.P. Dutta and V.K. Jain
Main Group Metal Chem, 25 (2002) 677-681.
166. Synthetic, spectroscopic and structural aspects of triphenylantimony(V) complexes with internally functionalized oximes: Crystal and molecular structure of $[\text{Ph}_3\text{Sb}\{\text{ON}=\text{C}(\text{Me})\text{C}_5\text{H}_4\text{N}\}_2]$.
Anjali Gupta, R.K. Sharma, R. Bohra, V.K. Jain, J.E. Drake, M.B. Hursthouse and M.E. Light
Polyhedron, 21 (2002) 2387-2392.
167. Synthesis, spectroscopic and structural aspects of some tetraorganodistannoxanes with internally functionalized oxime: 2. Crystal and molecular structure of $[\{\text{Me}_2\text{Sn}(\text{ON}=\text{C}(\text{Me})\text{C}_5\text{H}_4\text{N})\}_2\text{O}]_2 \cdot 2[2\text{-NC}_5\text{H}_4(\text{Me})\text{C}=\text{NOH}]$.
V. Sharma, R.K. Sharma, R. Bohra, V.K. Jain, J.E. Drake, M.E. Light and M.B. Hursthouse
J. Organomet. Chem., 664 (2002) 66-69.
168. Chemistry of arsenic, antimony and bismuth compounds with xanthate, dithiocarbamate and phosphorus-based acids.
S.S. Garje and V.K. Jain
Coord. Chem. Rev., 236 (2003) 35-56.
169. Chemistry of palladium and platinum tellurolates.
V.K. Jain and S. Dey
"The chemistry and application of alkoxy, aryloxy and allied derivatives of elements" pp 212-217.
Eds. R. Bohra, A. Singh and R.C. Mehrotra, RBSA publication, Jaipur (2003).
170. Pyridine- and 3-/6-methylpyridine-2-tellurolate complexes of palladium(II) and platinum(II).
S. Dey, V.K. Jain, J. Singh, V. Trehan, K.K. Bhasin and B. Varghese
Eur. J. Inorg. Chem. (2003) 744-750.
171. Configurational selectivity in benzyldimethylarsine complexes of palladium(II) and platinum(II): Synthesis, spectroscopy and structures.
P.P. Phadnis, V.K. Jain, A. Klein, M. Weber and W. Kaim
Inorg. Chim. Acta, 346 (2003) 119-228.
172. Synthesis and structure of bis(2-N,N-dimethylaminoethyl selenolato)zinc and its transformation to ZnSe.
S. Dey, V.K. Jain, S. Chaudhury, A. Knoedler and W. Kaim
Polyhedron, 22 (2003) 489-491.
173. Chemistry of 2-thienyl derivatives of arsenic and antimony; Synthesis and characterization; X-ray structure of $[\text{PdCl}_2\{(\text{C}_4\text{H}_3\text{S})_3\text{As}\}_2]$.
H. Mahalakshmi, V.K. Jain and E.R.T. Tiekink
Polyhedron, 22 (2003) 549-555.
174. Triorganoarsenic(V) compounds with internally functionalized oximes: Synthetic and spectroscopic aspects of $[\text{R}_3\text{As}(\text{Cl})\text{L}]$, $[\text{R}_3\text{As}(\text{OH})\text{L}]$ and $[\text{R}_3\text{AsL}_2]$: Crystal and molecular structure of $[\text{Pr}^i_3\text{AsOH}]^+\text{Cl}^-$.
A. Gupta, R.K. Sharma, R.K. Bohra, V.K. Jain, J.E. Drake, M.B. Hursthouse and M.E. Light
J. Organomet. Chem., 667 (2003) 61-65.
175. Preparation and characterization of methyl substituted 2,2'-dipyridyldiselenides, -ditellurides and their derivatives.
K.K. Bhasin, V.K. Jain, H. Kumar and J. Singh
Synthetic Communication, 33 (2003) 977-988.
176. Immobilization of uranyl Schiff base in mesoporous MCM-41 silicate molecular sieves.
S.K. Badamali, D.P. Dutta, A.K. Tripathi, V.K. Jain and N.M. Gupta
Catalysis Letters, 85 (2003) 13-17.
177. Synthesis and characterization of 3-(dimethylamino)propyl selenolate complexes of palladium(II) and platinum(II).
S. Dey, V.K. Jain, A. Knoedler and W. Kaim
Inorg. Chim. Acta, 349 (2003) 104-110.

178. Refinement of the crystal structure of tris (perfluorophenyl) arsine, $C_{18}F_{15}As$, at 173K.
H. Mahalakshmi, V.K. Jain and E.R.T. Tiekink.
Z. Kristallogr-NCS, 218 (2003) 67-68.
179. Crystal structure of tris (perfluorophenyl)bismuthine hemidioxane solvate, $C_{18}F_{15}Bi \cdot 0.5C_4H_8O_2$.
H. Mahalakshmi, V.K. Jain and E.R.T. Tiekink.
Z. Kristallogr-NCS, 218 (2003) 69-70.
180. Crystal structure of tris (perfluorophenyl)stibine, $C_{18}F_{15}Sb$.
H. Mahalakshmi, V.K. Jain and E.R.T. Tiekink.
Z. Kristallogr-NCS, 218 (2003) 71-72.
181. Synthesis and characterization of methylbismuth(III) complexes containing dithio ligands: Crystal and molecular structure of $[MeBi(S_2COMe)_2]$ and transformation of $[MeBi(S_2COPr^t)_2]$ to Bi_2S_3 .
A. Gupta, R.K. Sharma, R. Bohra, V.K. Jain, J.E. Drake, M.B. Hursthouse and M.E. Light
J. Organometal. Chem., 678 (2003) 122-127.
182. Synthesis and characterization of 2-dimethylaminoethyl thiolate complexes of palladium(II) and platinum(II).
S. Dey, V.K. Jain, A. Knoedler and W. Kaim
Indian J. Chem., 42A (2003) 2339-2343.
183. Tri(allyl)- and tri(methylallyl) arsine complexes of palladium(II) and platinum(II); Synthesis, spectroscopy, photochemistry and structures.
P.P. Phadnis, V.K. Jain, A. Klein, T. Schurr and W. Kaim
New J. Chem., (2003) 1584-1591.
184. Platinum group metals chalcogenides: Their synthesis applications in catalysis and materials science.
S. Dey and V.K. Jain
Platinum Metals Review, 48 (2004) 16-29.
185. The chemistry of selenium and tellurium
V. K. Jain and h.B. Singh
Platinum Metals Review, 48 (2004) 116.
186. Interconversion of structurally characterized complexes $[PdCl(Se N)]_2$ and $[Pd(Se N)_2]_6$ with hemilabile ligand $Se N = SeCH_2CH_2CH_2NMe_2$.
S. Dey, V.K. Jain, A. Klein and W. Kaim.
Inorg. Chem. Commun., 7 (2004) 601-603.
187. Thiolato-bridged linear trinuclear platinum complexes, $[Pt_3(\mu-SR)_4(dppm)_2]^{++}$.
Singhal, V.K.Jain, A. Klein, M. Niemeyer and W. Kaim.
Inorg. Chim. Acta, 357 (2004) 2134-2142.
188. Synthesis and characterization of organogallium complexes derived from 2-(hydroxy)pyridine, 2-(hydroxy methyl) pyridine and 2-(2-hydroxyethyl) pyridine.
N.P. Kushwah, D.P. Dutta and V.K. Jain.
Indian J. Chem., 43A (2004) 535-538.
189. Triethyl-germanium, -tin and -lead complexes derived from internally functionalized oximes.
V. Sharma, S. Agarwal, R. Bohra and V.K. Jain.
J. Chem. Res., (2004) 273-275.
190. Complex reduction chemistry of (abpy) $PtCl_2$, abpy = 2,2'- azobispyridine: formation of cyclic $[(\mu, \eta^2 : \eta^2- abpy) PtCl_2]_2^{2+}$ with a new coordination mode of abpy and a near infrared ligand to ligand intervalence charge transfer absorption of the one electron reduced state.
Dogan, B. Sarkar, A. Klein, F. Lissner, T. Schleid, J. Fielder, S. Zalis, V.K. Jain and W. Kaim
Inorg. Chem., 43 (2004) 5973-5980.
191. Structural variety and multiple isomerism in 1-dimethyl aminopropyl-2-chalcogenolate and 2-dimethylaminopropyl-1 chalcogenolate (S, Se, Te) complexes of palladium(II) and platinum(II): Synthesis, spectroscopy and structures of isomeric species.
S. Dey, L.B. Kumbhare, V.K. Jain, T. Schurr, W. Kaim, A. Klein and F. Belaj.
Eur. J. Inorg. Chem., (2004) 4510-4520.

192. *o*-Diphenylphosphinobenzaldehyde complexes of palladium(II) and platinum(II): Synthesis, spectroscopy and structure.
H. Mahalakshmi, P.P. Phadnis, V.K. Jain and E.R.T. Tiekink
Indian J. Chem., Sec A, 43A (2004) 2287-2293.
193. Cis -di-2-(N,N-dimethylaminoethyl) telluride dichloropalladium(II).
S. Dey, V.K. Jain, A. Knodler and W. Kaim.
Analytical sciences (Japan), 20 (2004) x127
194. Synthesis, spectroscopy, structure and photophysical properties of dinaphthylmethylarsine complexes of palladium(II) and platinum(II).
P.P. Phadnis, V.K. Jain, T. Schurr, A. Klein, F. Lissner, T. Schleid and W. Kaim
Inorg. Chim. Acta., 358 (2005) 2609-2617
195. Chemistry of N,N-Dimethylaminoalkylchalcogenolate complexes of palladium(II) and platinum(II).
V.K. Jain
Phosphorous, Sulfur and Silicon, 180 (2005) 913-921
196. Synthesis and characterization of organoindium complexes derived from internally functionalized anionic ligands.
S. Ghoshal, D. Dutta, N. Kushwaha and V.K. Jain
Indian J. Chem., 44A (2005) 1139-1143
197. Synthesis and purification of some main group organometallic precursors for compound semiconductors.
V.K. Jain
Bull. Materials Sci., 28 (2005) 313-316.
198. Multiple isomerism (*cis/trans*; *syn/anti*) in [(dms_o)₂Pt(aryl)₂] complexes: A combined structural, spectroscopic and theoretical investigation.
Klien, T. Schurr, A. Knoedler, D. Gudat, K.W. Klinkhammer, V.K. Jain, S. Zalis and W. Kaim
Organometallics, 24 (2005) 4125-4131.
199. On the borderline between *cis* and *trans* in organometallic phosphane platinum(II) complexes.
D. Gudat, V. K. Jain, A. Klein, T. Schurr and S. Zalis
Eur. J. Inorg. Chem., (2005) 4056-4063.
200. The chemistry of bi-nuclear palladium(II) and platinum(II) complexes.
V.K. Jain and L. Jain
Coord. Chem. Rev., 249 (2005) 3075-3197.
[\(This article is one of the top 25 most down loaded articles during 2006\)](#)
201. A convenient synthesis of methylindium(III) dithiolate complexes – precursors for indium sulfides.
S. Ghoshal, N.P. Kushwah, D.P. Dutta and V.K. Jain
Appl. Organomet. Chem., 19 (2005) 1257-1262.
202. Group 12 metal monoselenocarboxylates: synthesis, characterization, structure and their transformation to metal selenides (MSe; M = Zn, Cd, Hg) nano-particles.
G. Kedarnath, L.B. Kumbhare, V.K. Jain, P.P. Phadnis and M. Nethaji
Dalton Trans., (2006) 2714-2718.
203. Synthesis and characterization of indium xanthates and their use for the preparation of β- In₂S₃ nano-particles.
D.P. Dutta, G. Sharma, S. Ghoshal, N. Kushwah and V.K. Jain
J. Nanosci. Nanotech., 6 (2006) 235-240.
204. Synthesis and characterization of metal selenide (ZnSe, CdSe, HgSe) nano particles.
G. Kedarnath, S. Dey, V.K. Jain and G.K. Dey
J. Nanosci. Nanotech., 6 (2006) 1031-1037.
205. Palladium(II) and platinum (II) monoselenocarboxylates: Synthesis, spectroscopy, structure and their use as molecular precursors for metal selenides
L.B. Kumbhare, V.K. Jain and B. Varghese
Inorg. Chim. Acta, 359 (2006) 409-416.

206. 3-Dimethylaminopropyl chalcogenolate complexes of palladium(II): Synthesis and characterization, including the crystal structures of $[\text{Pd}(\text{OAc})(\text{ECH}_2\text{CH}_2\text{CH}_2\text{NMe}_2)]_2 \cdot 2\text{H}_2\text{O}$ (E = S, Se) and $[\text{PdCl}(\text{TeCH}_2\text{CH}_2\text{CH}_2\text{NMe}_2)]_2$.
S. Dey, V.K. Jain, B. Varghese, T. Schurr, M. Niemeyer, W. Kaim and R.J. Butcher
Inorg. Chim. Acta, 359 (2006) 1449-1457.
207. Synthesis, spectroscopy and structures of *o*-diphenylphosphino benzoic acid complexes of diorganotin(IV), palladium(II) and platinum(II).
P.P. Phadnis, S. Dey, V.K. Jain, M. Nethaji and R.J. Butcher
Polyhedron, 25 (2006) 87-94.
208. 2-(N,N-Dimethylamino)ethylselenolates of cadmium: Synthesis, structure of $[\text{Cd}_3(\text{OAc})_2(\text{SeCH}_2\text{CH}_2\text{NMe}_2)_4]$ and their use as single source precursors for the preparation of CdSe nanoparticles.
G. Kedarnath, S. Dey, V. K. Jain, G. K. Dey and B. Varghese
Polyhedron, 25 (2006) 2383-2391.
209. Unprecedented formation of selenido-bridged tri-nuclear palladium(II) and platinum(II) complexes, $[\text{M}_3(\mu\text{-Se})_2(\text{P}^{\text{O}}\text{P})_3]^{2+}$ via C-Se bond cleavage.
L. B. Kumbhare, V. K. Jain and R. J. Butcher
Polyhedron, 25 (2006) 3159-3164.
210. Gallium and indium dithiocarboxylates: Synthesis, spectroscopic characterization and structure of $[\text{MeGa}(\text{S}_2\text{Ctol})_2]$.
S. Ghoshal, V. K. Jain, D. P. Dutta, P.P. Phadnis and M. Nethaji
J. Organomet. Chem., 691 (2006) 5838-5844.
211. Synthesis and characterization of single source molecular precursors for the preparation of metal chalcogenides.
V. K. Jain
J. Chem. Sci. 118 (2006) 547-552.
212. Zinc, cadmium and mercury dithiocarboxylates: Synthesis, characterization, structures and their transformation to metal sulfide nanoparticles.
G. Kedarnath, V.K. Jain, S. Ghoshal, G. K. Dey C.A. Ellis and E.R.T. Tiekink
Eur. J. Inorg. Chem. (2007) 1566-1575.
213. Multiple coordination modes of hemilabile 3-dimethylaminopropyl chalcogenolates in platinum(II) complexes: Synthesis, spectroscopy and structures.
S. Dey, V.K. Jain and R.J. Butcher
Inorg. Chim. Acta, 360 (2007) 2653-2660.
214. A facile synthesis of MInSe_2 (M = Cu, Ag) via low temperature pyrolysis of single source molecular precursors, $[(\text{R}_3\text{P})_2\text{MIn}(\text{SeCOAr})_4]$.
S. Ghoshal, L. B. Kumbhare, V.K. Jain and G.K. Dey
Bull. Mater. Sci., 30 (2007) 173-178.
215. Palladium(II) and platinum(II) 2-(methoxycarbonyl)ethyl selenolates: Synthesis, spectroscopy, structures and their conversion into metal selenide.
L. B. Kumbhare, V.K. Jain, P.P. Phadnis and M. Nethaji
J. Organomet. Chem. 692 (2007) 1546-1556.
216. Diorgano-gallium and -indium complexes with N-heterocyclic carboxylic acids: Synthesis, characterization and structures of $[\text{Me}_2\text{M}(\text{O}_2\text{C}-\text{C}_5\text{H}_4\text{N})_2]$, M = Ga or In.
M. K. Pal, N. P. Kushwah, A. P. Wadawale, V. S. Sagoria, V. K. Jain and E. R. T. Tiekink
J. Organomet. Chem. 692 (2007) 4237-4243.
217. Triorganoantimony(V) carboxylates: Synthesis, characterization and crystal structure of $[\text{Me}_3\text{Sb}(\text{O}_2\text{C}-\text{C}_5\text{H}_4\text{N})_2] \cdot \text{H}_2\text{O}$.
K. P. Chaudhari, V.K. Jain, V.S. Sagoria and E.R.T. Tiekink
J. Organomet. Chem. 692 (2007) 4928-4932.

218. Synthesis and characterization of dialkyl[2-(2-phenolato)oxazolines]gallium(III) and indium(III): crystal structure of $[\text{InMe}_2(\text{OC}_6\text{H}_4\text{OxMe}_2)]_2$.
S. Ghoshal, A. P. Wadawale, V.K. Jain and M. Nethaji
J. Chem. Res. (2007) 221-225.
219. Homo- and hetero-, bi- and tri-nuclear palladium(II) and platinum(II) complexes containing single bridging chalcogenolate of a metallo-ligand, $[\text{MCl}(\text{ECH}_2\text{CH}_2\text{NMe}_2)(\text{PR}_3)]$ (M = Pd or Pt; E = S, Se, Te).
S. Dey, V.K. Jain and R. J. Butcher
Inorg. Chem. Commun., 10 (2007) 1385-1390.
220. 3,3-Diseleno dipropionic acid an efficient peroxy radical scavenger and a GPx mimic, protects erythrocytes from AAPH induced haemolysis
A. Kunwar, B. Mishra, A. Barik, L.B. Kumbhare, R. Pandey, V. K. Jain and K. I. Priyadarsini
Chem. Res. Toxicology, 20 (2007) 1482-1487.
221. Gallium(III) and indium(III) dithiolate complexes: Versatile precursors for metal sulfides
S. Ghoshal and V.K. Jain
J. Chem. Sciences 119 (2007) 583-591.
222. Chemistry of molecular precursors for compound semiconductor nano-particles.
V.K. Jain
J. Indian Chem. Soc., 85 (2008) 123-129.
223. Crystal structure of tris(isopropyl xanthato)indium(III)
S. Ghoshal, A. Wadawale and V.K. Jain
Analytical Sciences (Japan), 24 (2008) x15-x16.
224. Correlating the GPx activity of selenocystine derivatives with one electron redox reactions.
Mishra, a. Barik, A Kunwar, L.B. Kumbhare, K.I. Priyadarsini and V.K. Jain
Phosphorus, Sulfur, Silicon and Related Elements, 183 (2008) 1018-1025.
225. Organochalcogenolates of palladium(II) paltinum(II): Versatile molecular precursors for metal chalcogenides.
V.K. Jain, L.B. Kumbhare, S.Dey and N.D. Ghavale
Phosphorus, Sulfur, Silicon and Related Elements, 183 (2008) 1003-1008.
226. Bis(1-methylimidazolyl)diselenide and 1-methylimidazolylselenolate complexes of zinc, cadmium and mercury: Synthesis, characterization and their conversion to metal selenide quantum dots.
G. Kedarnath, L.B. Kumbhare, V.K. Jain, A. P. Wadawale, G. K. Dey, C. Thinaharan, S. Naveen, M. A. Sridhar and J.S. Prasad
Bull. Chem. Soc. Japan, 81 (2008) 489-494.
227. Pulse radiolysis studies on reactions of hydroxyl radicals with selenocystine derivatives.
B. Mishra, L. B. Kumbhare, V.K. Jain and K.I. Priyadarsini
J. Physical Chem. B, 112 (2008) 4441-4446.
228. Chalcogenolato-bridged cyclometallated binuclear palladium complexes: Synthesis, spectroscopy, structures of $[\text{Pd}_2(\mu\text{-Cl})(\mu\text{-SMes})(\text{C}_{10}\text{H}_6\text{NMe}_2\text{-C,N})_2]$ and $[\text{Pd}_2(\mu\text{-SePh})_2(\text{C}_{10}\text{H}_6\text{NMe}_2\text{-C,N})_2]$
N.D. Ghavale, S. Dey, V.K. Jain and M. Nethaji
Inorg. Chim. Acta 361 (2008) 2462-2470.
229. Synthesis and characterization of chalcogenolato-bridged allylpalladium complexes: Versatile precursors for palladium chalcogenides.
N. Ghavale, S. Dey, A wadawale and V.K. Jain
Organometallics, 27 (2008) 3297-3302.
230. Tris(dithiocarboxylato)indium(III): Thermal studies and crystal structure of $[\text{In}(\text{S}_2\text{Ctol})_3]$
S. Ghoshal, N.P. Kushwah, M.K. Pal, V.K. Jain and M. Nethaji
J. Chem. Sci., 120 (2008) 305-308.
231. Synthesis of undoped and manganese doped HgTe nano-particles using $[\text{Hg}(\text{TeCH}_2\text{CH}_2\text{NMe}_2)_2]$ as a single source precursor.
G. Kedarnath, S. Dey, V. K. Jain, G. K. Dey and R. Kadam
J. Nanosci. Nanotech., 8 (2008) 4500-4505.

232. Bis(3-methyl-2-pyridyl)ditelluride and pyridyl telluroate complexes of zinc, cadmium and mercury: Synthesis, characterization and their conversion to metal telluride nanoparticles
G. Kedarnath, V. K. Jain, A. Wadawale and G. K. Dey
Dalton Trans., (2009) 8378-8385.
233. Diorgano-gallium and -indium complexes with salen ligands: Synthesis, characterization, crystal structure and C-C coupling reactions
N.P. Kushwah, M.K. Pal, A. P. Wadawale and V.K. Jain
J. Organometal. Chem., 694 (2009) 2375-2379.
234. Palladium(II) and platinum(II) complexes of β -functionalized ethylselenolates: Effect of substitution on synthesis, spectroscopy, structures and thermal behavior.
L. B. Kumbhare, A. P. Wadawale, V. K. Jain, S. Kolay and M. Nethaji
J. Organomet. Chem., 694 (2009) 3892-3901.
235. Synthesis, spectroscopy and structures of palladium(II) and platinum(II) complexes containing mercapto-o-carborane.
N.P. Kushwah, V.K. Jain, A. Wadawale, O.B. Zhidkova, Z.A. Starikova and V.I. Bregadze
J. Organomet. Chem., 694 (2009) 4146-4151.
236. β -Functionalized ethylchalcogenolate complexes of lead(II): Synthesis, structures and their conversion into lead chalcogenide nanoparticles.
G. Kedarnath, L. B. Kumbhare, S. Dey, A. P. Wadawale, V. K. Jain and G. K. Dey,
Polyhedron, 28 (2009) 2749-2753.
237. Antimony and bismuth dithiocarboxylates: Synthesis, characterization, crystal structures of [Sb(S₂Ctol)₃] and [Bi(S₂CPh)₃] and their transformation to polycrystalline M₂S₃ (M = Sb or Bi)
K. R. Chaudhari, A. P. Wadawale, S. Ghoshal, S. M. Chopade, V. S. sagoria and V. K. Jain
Inorg. Chim. Acta, 362 (2009) 1819-1824.
238. 2-Methoxycycloocta-1,5-dienyl platinum complexes as precursors for platinum nanoparticles.
N. Ghavale, S. Dey, V.K. Jain and R. Tewari
Bull. Materials Sci., 32 (2009) 15-18.
239. Di- and tri-organogermanium carboxylates: Synthesis, spectroscopy and structures of [Me₃Ge(O₂CC₉H₆N)] and [Et₂Ge(O₂CC₅H₄N)₂].
A.Y. Shah, A. Wadawale, V.S. Sagoria, V.K. Jain, R. Sharma, M. Nagar and R. Bohra
Indian J. Chem. Sec. A, 48A (2009) 333-338.
240. Palladium assisted formation of arylselenoacetone from diaryldiselenides in methanol-acetone
N. Ghavale, A. Wadawale, S. Dey and V. K. Jain
Indian J. Chem., Sec. A, 48 A (2009) 1510-1514.
241. Crystal structure of 2,2'-diseleno bis(acetic acid)
A.S. Hodage, P.P. Phadnis, A. Wadawale, K.I. Priyadarsini and V.K. Jain
Analytical Sciences, X-ray Analysis Online (Japan), 25 (2009) 101-102.
242. In-vitro radioprotection studies of organoselenium compounds: Differences between mono- and di-selenides
B.S. Kumar, A. Kunwar, A. Ahmad, L.B. Kumbhare, V.K. Jain and K.I. Priyadarsini
Radiation & Environmental Biophysics, 48 (2009) 379-384.
243. Tellurium(0) as a ligand: Synthesis and characterization of 2-pyridyltelluroates of platinum(II) and structures of [Pt(2-Te-pyR-3)Te(PR'₃)] (R = H or Me).
R. S. Chauhan, G. Kedarnath, A. P. Wadawale, A. Munoz-Castro, R. Arratia-Perez, V.K. Jain and W. Kaim
Inorg. Chem., 49 (2010) 4179-4185.
244. Intermetallic bonds in metallophilic mercuriazametallamacrocycles of synthetic design
U. Patel, S. Sharma, H.B. Singh, S. Dey, V.K. Jain, G. Wolmershaeuser and R. J. Butcher,
Organometallics, 29 (2010) 4265- 4275.

245. 2-Pyridyl selenolates of antimony and bismuth: Synthesis, characterization, structures and their use as single source molecular precursor for the preparation of metal selenides nanostructures and thin films. R.K. Sharma, G. Kedarnath, V.K. Jain, A. Wadawale, M. Nalliath, C.G.S. Pillai and B. Vishwanadh *Dalton Trans.* 39 (2010) 8779-8787.
246. Binuclear rhodium(III) and iridium(III) monoselenocarboxylates: Synthesis, spectroscopy and structure of an ortho-metallated iridium complex featuring IrCCC(μ -Se) chelate ring. L. B. Kumbhare, a.P. Wadawale, V.K. Jain, M. Sieger and W. Kaim *Inorg. Chem. Commun.* 13 (2010) 475- 478.
247. Synthesis, structures and spectroscopic properties of platinum(II) complexes containing orthometalated 2-phenylpyridine. N. Ghavale, A. Wadawale, S. Dey and V. K. Jain *J. Organometal. Chem.*, 695 (2010) 1237-1245.
248. Synthesis, structures and spectroscopic properties of cyclometalated tri-tert-butylphosphine complexes of platinum(II) N. Ghavale, A. Wadawale, S. Dey and V. K. Jain *J. Organomet. Chem.*, 695 (2010) 2296-2304
249. 1-Selenolato-2-phenyl-o -carborane complexes of palladium(II) and platinum(II): synthesis, spectroscopy and structures. M. K. Pal, V. K. Jain, N. P. Kushwah, A. Wadawale, S. A. Glazun, Z. A. Starikova and V. I. Bregadze. *J. Organomet. Chem.*, 695 (2010) 2629-2634.
250. The chemistry of tri- and high- nuclearity palladium(II) and platinum(II) complexes. V. K. Jain and L. Jain, *Coord. Chem. Rev.* 254 (2010) 2848-2903.
(This article is one of the top 25 most down loaded articles during the 4th quarter of 2010)
251. Monoorganobismuth dithiocarboxylates: Synthesis, structures and their utility as molecular precursors for the preparation of Bi₂S₃ films and nano crystals K.R. Chaudhari, N. Yadav, A. Wadawale, V.K. Jain and R. Bohra *Inorg. Chim. Acta*, 363 (2010) 375-380.
252. Germanium tetra(tertiary butoxide): Synthesis, structure and its utility as a precursor for the preparation of GeO₂:Eu nanoparticles A. Y. Shah, A. Wadawale, B. S. Nidu, V. Sudarsan, R. K. Vatsa, V. K. Jain, V. Dhayal, M. Nagar and R. Bohra *Inorg. Chim. Acta*, 363 (2010) 3680-3684.
253. Trinuclear diorganogallium complexes containing tripodal Schiffbasees: Synthesis and structure of [Me₂GaO(C₆H₄)CH=NCH₂CH₂]₃N] M. K. Pal, N. P. Kushwah, A. P. Wadawale and V. K. Jain *J. Chem. Res.*, (2010) 485- 488.
254. Crystal Structure of [Pt₃Cl₃(μ -SeCH₂CH₂NH₂)₂(PPr₃)₃]Cl L. B. Kumbhare, A. Wadawale, and V. K. Jain *Analytical Sciences: X-ray structur Analysis online*, 26 (2010) 69-70.
255. Monoorganobismuth(III) thiocarboxylates: Synthesis, characterization and crystal structures of [PhBi(OSCR)₂] (R = Me or Ph) K. P. Chaudhari, A. Wadawale, V. K. Jain, N. Yadav and R. Bohra *Indian J. Chem. Sec. A*, 49 A (2010) 34-38.
256. *In-vivo* radioprotection studies of 3,3'-diselenopropionic acid, a selenocystine derivative. A. Kumar, P. Bansal, S. J. Kumar, P. P. Bag, P. Paul, N. D. Reddy, L. B. Kumbhare, V. K. Jain, R. C. Chaubay, M. K. Unnikrishnan and K. I. Priyadarsini *Free Radical Biology & Medicine*, 48 (2010) 399-410.
257. Organochalcogen compounds in materials science and biology-a review (*Invited article*) V.K. Jain and K. I. Priyadarsini *Proceeding of the National Academy of Sciences, Section A*, 80 (2010) 269-280.

258. Synthesis, characterization and structures of 2-(3,5-dimethylpyrazol-1-yl)ethylseleno derivatives and their probable glutathione peroxidase (GPx) like activity
A. S. Hodage, P. P. Phadnis, A. Wadawale, K. I. Priyadarsini and V. K. Jain
Org. & Biomolecular Chem., 9 (2011) 2992- 2998.
259. Monomeric pyridyl-2-selenolate complexes of cadmium and mercury: synthesis, characterization and their conversion to metal selenide nanoparticles
R. K. Sharma, G. Kedarnath, A. Wadawale, V.K. Jain and B. Vishwanadh
Inorg. Chim. Acta, 365 (2011) 333-339.
260. Methimazole complexes of platinum(II): Synthesis, characterization and redox behavior.
L. B. Kumbhare, U. Singh, B. G. Singh, A. Wadawale, G. Kedarnath, S. S. Zade, K. I. Priyadarsini and V. K. Jain
Inorg. Chim. Acta, 374 (2011) 69-78.
261. Synthesis, structure and reactivity of bis(2,4,6-trimethylphenyl)selenoxide.
N. Ghavale, P.P. Phadnis, A. Wadawale and V. K. Jain
Indian J. Chem., 50A (2011) 22-26.
262. Diorgano-gallium and -indium complexes with 1-(hydroxymethyl)pyrazole and 3,5-dimethyl-1-(hydroxymethyl)pyrazole: Synthesis, characterization and crystal structures of $[\text{Me}_2\text{MOCH}_2\text{dmpz}]_2$ (M = Ga, In) and $[(\text{Me}_2\text{Ga})_2(\mu\text{-OH})(\mu\text{-dmpz})][\text{dmpzCH}_2\text{OH}]$.
N. P. Kushwah, M. K. Pal, A. P. Wadawale and V. K. Jain
Indian J. Chem., 50A (2011) 674-679.
263. Organo-gallium and -indium complexes with dithiolate and oxo ligands: Synthesis, structures and applications
V. K. Jain, A. Wadawale, N. P. Kushwah and M. K. Pal
J. Chem. Sci., 123 (2011) 107- 112.
264. Effect of functional groups on antioxidant properties of substituted selenoethers
P. Prabhu, P. P. Bag, B. G. Singh, A. Hodage, V. K. Jain, M. Iwaoka and K. I. Priyadarsini
Free Radical Research, 45 (2011) 461- 468.
265. Anti-apoptotic, anti-inflammatory and immunomodulatory activities of 3,3'-diselenobisdipropionic acid in mice exposed to whole body γ -radiation.
A. Kunwar, P.P. bag, S. Chattopadhyay, V.K. Jain and K. I. Priyadarsini
Archives of Toxicology, 85 (2011) 1395-1405.
266. Oligomeric allyl-palladium complexes of β -substituted ethylselenolates: Syntheses, structures and thermal decomposition
L. B. Kumbhare, A. Wadawale, S. S. Zade and V. K. Jain
Dalton Trans. 40 (2011) 7957-7966.
267. Copper(I) 2-pyridylselenolates and tellurolates: Synthesis, structures and their utility as molecular precursors for the preparation of copper chalcogenide nanocrystals and thin films.
R. K. Sharma, G. Kedarnath, V. K. Jain, A. Wadawale, C.G.S. Pillai, M. Nalliath and B. Vishwanadh
Dalton Trans., 40 (2011) 9194-9201.
268. Synthesis of platinum(II) complexes of cyclooctyl group: Isolation of a self -assembled oxo-bridged macrocyclic complex $[\text{Pt}_4(\text{Spy})_4(\text{C}_8\text{H}_{12}\text{-O-C}_8\text{H}_{12})_2]$
N. Ghavale, S. Dey, A. Wadawale and V. K. Jain
J. Organomet. Chem., 696 (2011) 3491-3498.
269. Reactivity of dipyridyltellurides with (diphosphine) Pt^0 and 2-pyridyltellurolates with (diphosphine) PtCl_2 and isolation of different structural motifs of platinum(II) complexes
R.S. Chauhan, G. Kedarnath, A. Wadawale, A.L. Rheingold, A. Munoz-Castro, R. Arratia-Perez and V.K. Jain
Organometallics, 31 (2012) 1743-1750.
270. Synthesis, characterization, photoluminescence and computational studies of monoorgano-gallium and -indium complexes containing dianionic tridentate ONE (E = O or S) Schiff bases
N. Kushwah, M.K. Pal, A. Wadawale, V. Sudarsan, D. Manna, T.K. Ghanty and V.K. Jain
Organometallics, 31 (2012) 3836-3843.

271. Cis-configured mono-nuclear palladium(II) and platinum(II) complexes of chalcogeno *o*-carboranes: Synthesis, spectroscopy and structures of [Pt(SCb^oPh)₂(dppm)], [Pt(SeCb^oPh)₂(dppm)], [Pt(SCb^oS)(PMe₂Ph)₂] and [Pt(SCb^oS)(PMePh₂)₂]
M. K. Pal, V. K. Jain, A. P. Wadawale, S.A. Glazun, Z. A. Starikova and V. I. Bregadze
J. Organomet. Chem., 696 (2012) 4257-4263.
272. Isolation of chloro-bridged arylpalladium complexes, [Pd₂Ar₂(μ-Cl)₂(PR₃)₂], in a palladium catalyzed C-C cross coupling reaction of triarylbi-muth with arylhalides
K.R. Chaudhari, A. P. Wadawale and V. K. Jain
J. Organomet. Chem., 698 (2012) 15-21.
273. Synthesis, characterization, structures and antioxidant activity of nicotinoyl based organoselenium compounds
C.P. Prabhu, P.P. Phadnis, A.P. Wadawale, K.I. Priyadarsini and V.K. Jain
J. Organomet. Chem., 713 (2012) 42-50.
274. Reactivity of dipyrimidyl diselenides with [M(PPh₃)₄] and 2-pyrimidylchalcogenolates with [MCl₂(diphosphine)] (M = Pd or Pt)
R.S. Chauhan, R.K. Sharma, G. Kedarnath, D. B. Cordes, A.M.Z. Slawin and V. K. Jain
J. Organomet. Chem., 717 (2012) 180-186.
275. Synthesis, characterization, structures and GPx mimicking activity of pyridyl and pyrimidyl based organoselenium compounds
A. S. Hodage, C. Parashiva Prabhu, P. P. Phadnis, A. Wadawale, K. I. Priyadarsini and V. K. Jain
J. Organomet. Chem., 720 (2012) 19-25.
276. Synthesis and characterization of ethylenediamine/ (diammine)platinum(II) coordinated to seleno ligands containing carboxylic acid functionality
S.M. Chopade, P.P. Phadnis, A. Wadawale, A.S. Hodge and V.K. Jain
Inorg. Chim. Acta, 385 (2012) 185-189.
277. Selenium containing amino acids are targets for myeloperoxidase-derived hypothiocyanous acid: Determination of absolute rate constants and implications for biological relevance.
O. Skaff, D. I. Pattison, P. E. Morgan, R. Bachana, V. K. Jain, K. I. Priyadarsini and M. J. Davies
Biochemical Journal, 441 (2012) 305-316.
278. Aerosol assisted chemical vapor deposition of germanium thin films using organogermanium carboxylates as precursors and formation of Germanium films
A.Y. Shah, A. Wadawale, V.S. Sagoria, V.K. Jain, C.A. Betty and S. Bhattacharya
Bull. Mat. Sci., 35 (2012) 365-368.
279. Synthesis, characterization and X-ray structures of 2-phenyl(3, 5-dimethylpyrazol-1-yl) based organoselenium compounds and their glutathione peroxidase (GPx) like activity
A. S. Hodage, P. P. Phadnis, A. Wadawale, K. I. Priyadarsini and V. K. Jain
Phosphorus, Sulfur, Silicon and related Elements, 187 (2012) 1419-1433.
280. Dirganotin(IV) 2-pyridylselenolates: Synthesis, structures and their utility as molecular precursors for the preparation of tin selenide nanocrystals and thin films
R.K. Sharma, G. Kedarnath, A. Wadawale, C.A. Betty, B. Vishwanadh and V.K. Jain
Dalton Trans., 41 (2012) 12129-12138.
281. Diorgano-gallium and -indium complexes derived from bezazole ligands: Synthesis, characterization, photoluminescence and computational studies
M.K. Pal, N. Kushwah, D. Manna, A. Wadawale, V. Sudarsan, T.K. Ghanty and V.K. Jain
Organometallics, 32 (2013) 104 - 111.
282. Reactivity of 2-chalcogenopyridines with palladium phosphine complexes: Isolation of different complexes depending on the nature of chalcogen atom and phosphine ligand
R. S. Chauhan, G. Kedarnath, A. Wadawale, A. M. Z. Slawin and V. K. Jain
Dalton Trans., 42 (2013) 259-269.
283. Cyclopalladation of dimesityl selenide: Synthesis, reactivity, structural characterization, isolation of an intermediate complex with C-H...Pd intra-molecular interaction and computational studies
S. Kolay, A. Wadawale, D. Das, H. K. Kisan, R. B. Sunoj and V. K. Jain
Dalton Trans., 42 (2013) 10828-10837.

284. Synthesis of Pd(II)/Pt(II) complexes with non-chelating 4-pyridylselenolate ligand ranging from mononuclear to macrocyclic structures and their utility as catalysts in Suzuki C-C coupling reaction
K. V. Vivekananda, S. Dey, A. Wadawale, N. Bhuvanesh and V. K. Jain
Dalton Trans., 42 (2013) 14158-14167.
285. Structural differences in the luminescence properties of lanthanide doped orthorhombic and monoclinic phases of Y_2GeO_5
Alpa Shah, Adish Tyagi, B. S. Naidu, V. Sudarsan, R. K. Vatsa and V. K. Jain
RSC Adv., 3 (2013) 23172- 23177.
286. Oxidative addition reactions of nicotinamide based organoselenium compounds on $[M(PPh_3)_4]$ (M = Pd or Pt): An insight study for the formation of several isolable products
R.S. Chauhan, C.P. Prabhu, P.p. Phadnis, G. Kedarnath, J.A. Golen, A.L. Rheingold and V.K. Jain
J. Organomet. Chem., 723 (2013) 163-170.
287. Dimethylaminoalkylchalcogenolate complexes of palladium(II): Synthesis, structures and their catalytic activity in Suzuki C-C cross coupling reactions
D.K. Paluru, S. Dey, A. Wadawale and V.K. Jain
J. Organomet. Chem., 728 (2013) 52-56.
288. Cis-Configured bis phosphine platinum(II) chalcogenolate complexes: Structures, comparative NMR and computational studies
R. S. Chauhan, G. Kedarnath, A. Wadawale, D. K. Maity, J. A. Golen, A. L. Rheingold and V. K. Jain
J. Organomet. Chem., 737 (2013) 40-46.
289. One-pot synthesis of phenylseleno N-acetyl α -amino acids: Supra-molecular self-assembling in organoselenium compounds
P.C. Prabhu, P. P. Phadnis, A. Wadawale, K. I. Priyadarsini and V. K. Jain
J. Organomet. Chem., 745-746 (2013) 140-147.
290. Indium(III) (3-methyl-2-pyridyl)selenolate: Synthesis, structure and its utility as a single source precursor for the preparation of In_2Se_3 nanocrystals and a dual source precursor with $[Cu\{SeC_5H_3(Me-3)N\}_4]$ for the preparation of $CuInSe_2$
R. K. Sharma, G. Kedarnath, N. Kushwah, M. K. Pal, A. Wadawale, B. Vishwanadh, B. Paul and V. K. Jain (invited article for special issue in honor of Prof. V.I. Bregadze)
J. Organomet. Chem., 747 (2013) 113-118.
291. Pyridyl and pyrimidyl chalcogen (Se and Te) compounds: A family of multi utility molecules
G. Kedarnath and V.K. Jain
Coord. Chem., Rev., 257 (2013) 1409 – 1435.
292. Bis phosphine palladium(II) mesitylchalcogenolate complexes: Synthesis and structure of $[Pd(SeMes)_2(dppe)]$
R.S. Chauhan, G. Kedarnath, J.A. Golen, A.L. Rheingold and V.K. Jain
Indian J. Chem., 52A (2013) 41- 44.
293. Binuclear orthometalated N,N-dimethylbenzylamine complexes of palladium(II): Synthesis, structure and thermal behavior
S. Kolay, N. Ghavale, A. Wadawale, D. Das and V. K. Jain
Phosphorus, Sulfur, Silicon and Related elements, 188 (2013) 1449- 1461.
294. A selenocystein derivative therapy delays and reduces radiation induced neurophilia and pneumonitis in the mouse
A. Kunwar, V. K. Jain, K. I. Priyadarsini and C. K. Haston
Am. J. Respiratory Cell and Molecular Biology, 49 (2013) 654-661.
295. Antimony and bismuth complexes containing 2-(4,6-dimethylpyrimidyl)selenolates: Synthesis, characterization and their conversion to metal selenide nano-particles
R. K. Sharma, G. Kedarnath, B. Vishwanadh and V. K. Jain
International J. Chem., 2 (2013) 423-426.
296. Synthesis, structures and DFT calculations of 2-(4,6-dimethylpyrimidyl)selenolate complexes of Cu(I), Ag(I) and Au(I) and their conversion into metal selenide nano-crystals
R. K. Sharma, A. Wadawale, G. Kedarnath, D. Manna, T. K. Ghanty, B. Vishwanadh and V. K. Jain
Dalton Trans., 43 (2014) 6525-6535.

297. Cyclopalladation of telluro ethr ligands: Synthesis, reactivity and structural characterization
S. Kolay, M. Kumar, A. Wadawale, D. Das and V.K. Jain
Dalton Trans., 43 (2014) 16056-16065.
298. Stable selones in glutathione peroxidase like catalytic cycle of selenonicotinamide derivative
P. Prabhu, B. G. Singh, M. Nagouchi, P. P. Phadnis, V. K. Jain, M. Iwaoka and K. I. Priyadarsini
Org. Biomol. Chem., 12 (2014) 2404-2412.
299. Chalcogenocarboranes: A family of multifaceted sterically demanding ligands
L. Jain, V.K. Jain, N. Kushwah, M. K. Pal, A.P. Wadawale, V.I. Bregadze and S.A. Glazum
Coord. Chem. Rev., 258-259 (2014) 72-118.
300. Pyrazolato-bridged arylpalladium(II) complexes, $[Pd_2Ar_2(\mu\text{-pz/dmpz})_2(PR_3)_2]$: Synthesis and crystal structures
K. R. Chaudhary, A. P. Wadawale and V. K. Jain
J. Organomet. Chem. (special issue dedicated to Prof. M.J. Calhoda), 760 (2014) 55-59.
301. Pyrimidyl-2-selenolates of cadmium and mercury: Synthesis, structures and their conversion to metal selenide nano-particles
R.K. Sharma, A. Wadawale, G. Kedarnath, B. Vishwanadh and V.K. Jain
Inorg. Chim. Acta, 411 (2014) 90- 96.
302. Dimethylaminoalkylchalcogenolate palladium(II) complexes as an efficient copper and phosphine-free catalyst for Sonogashira reaction
B.J. Khairnar, S. Dey, V.K. Jain and B. M. Bhanage
Tetrahedron Lett., 55 (2014) 716- 719.
303. Palladium(II) chalcogenolate complexes as catalysts for C-C cross-coupling and carbonylative Suzuki coupling reactions
D. K. Paluru, S. Dey, K. R. Chaudhuri, M. V. Khedkar, B. M. Bhanage and V. K. Jain
Tetrahedron Lett., 55 (2014) 2953-2956.
304. Supramolecular 3-/4-mercapto benzoic acid complexes of palladium(II) and platinum(II) stabilized by hydrogen bonding
K.V. Vivekanada, S. Dey, A. Wadawale, N. Bhuvanesh and V. K. Jain
Eur. J. Inorg. Chem., (2014) 2153- 2161.
305. Organoselenium compounds based on substituted acetanilides: Synthesis, characterization and antioxidant activity
P. P. Phadnis, A. S. Hodage, K. I. Priyadarsini and V. K. Jain
Indian J. Chem., Sec.A, 53A (2014) 34- 40.
306. In-vitro antioxidant studies of diselenodinicotinamide: A potent GPx mimic
Parashiva Prabhu C., B. Adhikari, P. P. Phadnis, S. Chakravorty, V. K. Jain and K. I. Priyadarsini
Indian J. Chem. Sec. A, 53A (2014) 781- 786.
307. Synthesis, characterization and structures of α -substituted selenenyl acetophenones
A. S. Hodage, P.P. Phadnis, A. Wadawale, K.I. Priyadarsini and V.K. Jain
Phosphorus, Sulfur, Silicon and Related Elements, 189 (2014) 700-710.
308. Dimethylgallium/-indium complexes derived from bis(2-hydroxybenzylidene)-1,4-phenylenediamine and bis(2-hydroxybenzylidene)-4,4'-methylenedianiline: Synthesis and structural characterization
N. Kushwah, M.K. Pal, A.P. Wadawale and V.K. Jain
Proceedings of the National Academy of Sciences, Sec.-A 84 (2014) 179-187.
309. Synthesis, structures and utility of organogallium and indium complexes with oxo- and thio-ligands
V. K. Jain, A. Wadawale, N. P. Kushwah and M. K. Pal
Izv. Akad. Nauk. Ser. Khim., (2014) 781-787; *Russian Chem. Bull.*, 63 (2014) 781-787.
310. Cyto-genotoxicity assessment of potential radioprotector, 1,3'-diselenodipropionic acid (DSePA) in Chinese Hamster ovary (CHO) cells and human peripheral blood lymphocytes
R. K. Chaurasia, S. Balakrishnan, A. Kunwar, U. Yadav, N. Bhat, K. Anjaria, R. Nairy, B. K. Sapra, V. K. Jain and K. I. Priyadarsini
Mutation Research/Genetics Toxicology and Environmental Mutagenesis, 774 (2014) 8-16.

311. Pulse radiolysis studies of 3,5-dimethylpyrazole derivatives of seleno ethers
Atnu Barik, B.G. Singh, A. Sharma, V.K. Jain and K.I. Priyadarsini
J. Phys. Chem. -A, 118 (2014) 10179 – 10187.
312. Silver(I) coordination polymer of 4,4'-dipyridyl selenide and its solvothermolysis
G.K. Kole, K.V. Vivekananda, M. Kumar, S. Dey and V.K. Jain
Internat. J. Chem. 3 (2014) 263-268.
313. Supromolecular macrocyclic (Pd(II) and Pt(II) squares and rectangles with aryldithiolate ligands and their unprecedented catalytic activity in Suzuki C-C coupling reaction
K. V. Vivekananda, S. Dey, N. Bhuvanesh and V. K. Jain
Inorg. Chem., 54 (2015) 10153-10162.
314. Platinum mediated activation of coordinated organonitriles by telluroethers in THF: Isolation, structural characterization and DFT analysis of intermediate complexes
S. Kolay, A. Wadawale, S. Nigam, M. Kumar, C. Majumder, D. Das and V. K. Jain
Inorg. Chem., 54 (2015) 11741-11750.
315. Hemilabile silver(I) complexes containing pyridylchalcogenolate (S, Se) ligands and their utility as molecular precursors for silver chalcogenide
G. K. Kole, K. V. Vivekananda, M. Kumar, R. Ganguly, S. Dey and V. K. Jain
CyrstEngComm 17 (2015) 4367-4376.
316. Diorganotin(IV) 2-pyridyl and 2-pyrimidyl thiolates: Synthesis, structures and their utility as molecular precursors for the preparation of tin sulfide nano-sheets
A. Tyagi, G. Kedarnath, A. Wadawale, V.K. Jain, M. Kumar and B. Vishwanadh
RSC Adv., 5 (2015) 62882-62890.
317. Effect of alkyl chain length on one-electron oxidation of bis(alkylcarboxylic)selenides: Implication on their antioxidant ability
B.G. Singh, S. Nadkarni, V.K. Jain and K.I. Priyadarsini
RSC Adv., 5 (2015) 66621-66627.
318. Structural variation in [PdX₂{ArE(CH₂)_nNMe₂}] (E =Se, Te; X = Cl, OAc) complexes: Experimental results, computational analysis and catalytic activity in Suzuki cross-coupling reactions
D.K. Paluru, S. Dey, A. Wadawale, D.K. Maity, N. Bhuvanesh and V.K. Jain
Eur. J. Inorg. Chem., (2015) 397-407.
319. Synthesis, characterization, photoluminescence and computational studies of mono- and di-organo gallium complexes containing azo linked salicylaldehyde Schiff bases
M. K. Pal, N. Kushwah, A. P. Wadawale, D. Manna, V. Sudarsan, T. K. Ghanty and V. K. Jain
J. Organomet. Chem., 776 (2015) 98 - 106.
320. Structural diversity ranging from cyclic trimeric, tetrameric, hexameric to 1-D helix in dimethylgallium hydroxide
N. Kushwah, M. K. Pal, M. Kumar, A. P. Wadawale, D. Manna, T. K. Ghanty and V. K. Jain
J. Organomet. Chem., 781 (2015) 65-71.
321. Role of anagostic interactions in cycloplatinatation of telluroethers: Synthesis and structural characterization
S. Kolay, M. Kumar, A. Wadawale, D. Das and V. K. Jain
J. Organomet. Chem., 794 (2015) 40-47.
322. Synthesis, characterization, structures and antitumor activity of platinum(II) complexes(II) containing dimethylpyrazole based selenium ligands
S. M. Chopade, P. P. Phadnis, A. S. Hodge, A. Wadawale and V. K. Jain
Inorg. Chim. Acta, 427 (2015) 72 - 80.
323. Synthesis, characterization, and structure of *trans*-3,4-dihydroxy-1-selenolane {DHS(OH)₂} substituted derivatives
P. P. Phadnis, A. Wadawale, K. I. Priyadarsini, V. K. Jain and M. Iwaoka
Tetrahedron Lett., 56 (2015) 2293-2296.

324. Luminescence properties of lanthanide ion (Tb^{3+} and Dy^{3+}) doped Y_2GeO_5 : Orthorhombic versus monoclinic forms
A. Tyagi, A. Shah, V. Sudarsan, R. K. Vatsa and V. K. Jain
Materials Research Bull., 64 (2015) 182-186.
325. Biodistribution and pharmacokinetic study of 3,3'-diselenodipropionic acid (DSePA): A synthetic radioprotector
V. Gota, J.S. Goda, K. Doshi, A. Patel, S. Sunderajan, K. Kumar, M. Varne, A. Kunwar, V.K. Jain and K.I. Priyadarsini
Eur. J. Drug Metab. Pharmacokinet., 41 (2016) 839-844.
326. New vistas in the chemistry of platinum group metals with tellurium ligands
V.K. Jain and R.S. Chauhan
Coord. Chem. Rev., 306 (2016) 270-301.
327. Coordination polymers of palladium bridged by carboxylate and dimethylaminoalkylselenolate ligands
D.K. Paluru, S. Dey, A.P. Wadawale, N. Bhuvanesh, A. Grupp, W. Kaim and V.K. Jain
Chem. Asian J., 11 (2016) 401-410.
328. Effect of molecular interactions on reactivity of bis(alkanol)selenides: Radiation chemical study in development of selenium antioxidants
P.V. Kumar, B.G. Singh, P.P. Phadnis, V.K. Jain and K.I. Priyadarsini
Chem. Eur. J., 22 (2016) 12189-12198.
329. Intermolecular aurophilic versus An---N secondary intramolecular interactions in two-coordinate gold(I) selenolate complexes
G. K. Kole, A. P. Wadawale, S. Nigam, C. Majumder and V. K. Jain
Chemistry Select, 1 (2016) 4131-4136.
330. Diorganotin(IV) 4,6-dimethyl-2-pyrimidylselenolates: Synthesis, structures and their utility as molecular precursors for the preparation of $SnSe_2$ nano-sheets and thin films.
A. Tyagi, G. Kedarnath, A. Wadawale, A.Y. Shah, V. K. Jain and B. Vishwanadh
RSC Advances, 6 (2016) 8367-8376.
331. Size induced modification of boron structural unit in YBO_3 : Synthetic exploration by experimental and theoretical methods
R.G. Nair, S. Nigam, B. Vishwanadh, V. Sudarsan, R. K. Vatsa, C. Majumder and V. K. Jain
RSC Advances, 6 (2016) 64065-64071.
332. Gold nanoparticles (GNP) induced redox modulation in organoselenium compounds: Distinction between cyclic vs. linear structures
P. V. Kumar, B. G. Singh, A. Ballal, V. K. Jain, M. Iwoaka and K. I. Priyadarsini
RSC Advances, 6 (2016) 69501-69508.
333. Monoorgano-gallium and -indium complexes derived from dianionic tridentate ONO Schiff bases: Synthesis, crystal structures and photoluminescence
M. K. Pal, N. Kushwah, A.P. Wadawale, S. Dey, V. Sudarsan and V. K. Jain
J. Organomet. Chem., 808 (2016) 128-133.
334. Arylpalladium xanthates: Molecular precursors for Pd_4S
K. R. Chaudhari, S. Dey, A. P. Wadawale and V. K. Jain
J. Organomet. Chem., 813 (2016) 119-124.
335. Palladium(II) complex of 4-pyridylselenolate ligand: An efficient catalyst for aminocarbonylation of aryl and heteroaryl iodides with primary amines
S. P. Chavan, S. Dey, V. K. Jain and B. M. Bhangre
Proceedings of the National Academy of Sciences, 86 (2016) 581-587.
336. Synthesis, characterization, photophysical and DFT studies of coumarin Schiff bases and their dimethylgallium complexes
N. Kushwah, M.K. Pal, A.P. Wadawale, K. Kundu, S.K. Nayak, V. Sudarsan, T.K. Ghanty and V.K. Jain
Proceedings of the National Academy of Sciences, 86 (2016) 633-644.

337. Cellular evaluation of diselenonicotinamide (DSNA) as a radio-protector against cell death and DNA damage
M. Raghuraman, Prachi Verma, Amit Kunwar, P.P. Phadnis, V.K. Jain and K.I. Priyadarsini
Metallomics, 9 (2017) 715-725.
338. Germanium xanthates: Versatile precursors for photo responsive germanium sulfide nanostructures
Alpa Y Shah, G. Kedarnath, A. Tyagi, C.A. Betty, V.K. Jain and B. Vishwanadh
Chemistry Select, 2 (2017) 4598-4604.
339. Reactivity of 4-pyridyltelluroate with Pd(II) and Pt(II) complexes
K.V. Vivekananda, S. Dey, A.P. Wadawale, N. Bhuvanesh and V.K. Jain
Chemistry Select, 2 (2017) 5073-5079.
340. Diarylgallium complexes derived from azo-linked Schiff bases: Synthesis, characterization and photoluminescence studies
M. K. Pal, N. Kushwah, A. P. Wadawale, V. Sudarsan and V. K. Jain
J. Organomet. Chem., 848 (2017) 207-213.
341. Study of polymorphism in 2,2'-diseleno bis(3-pyridinol)
P.P. Phadnis, A. Kunwar, M. Kumar, R. Mishra, A. Wadawale, K.I. Priyadarsini and V.K. Jain
J. Organomet. Chem., 852 (2017) 1-7.
342. YBO₃ versus Y₃BO₆ host on Tb³⁺ luminescence
R. G. Nai, S. Nigam, V. Sudarsan, R. K. Vatsa and V. K. Jain
J. Luminescence, 195 (2018) 271-277.
343. Effect of synthesis conditions on the nature of GdBO₃ phase formed
R. G. Nair, S. Nigam, V. Sudarsan, Rekha Rao, R.K. Vatsa and V. K. Jain
Chemistry Select, 3 (2018) 7496-7506.
344. Coordination polymers of indium / copper selenolates and the preparation of metal selenides
M. K. Pal, S. Dey, A.P. Wadawale, N. Kushwah, M. Kumar and V.K. Jain
Chemistry Select, 3 (2018) 8575-8580.
345. Synthesis and characterization and photovoltaic properties of colloidal Cu₂SnSe₃ nano-structures using molecular precursors
Adish Tyagi, A.Y. Shah, G. Kedarnath, A. Wadawale, V. Singh, D. Tyagi, C.A. Betty, C. Lal and V.K. Jain
J. Materials Science: Materials in Electronics, 29 (2018) 8937-8946.
346. Facile one-pot synthesis of tin selenide nanostructures using diorganotin bis(5-methyl-2-pyridylselenolates)
Adish Tyagi, Gourab Karmakar, Amey Wadawale, Alpa Y Shah, G. Kedarnath, A. P. Srivastava, Vishal Singh and Vimal K. Jain
J. Organomet. Chem., 873 (2018) 15-21.
347. Toxicological safety evaluation of 3,3'-diselenodipropionic acid (DSePA), a pharmacologically important derivative of selenocystine
A. Kunwar, A. Patil, S. Kumar, R. Deshpande, V. Gota, J. S. Goda, V. K. Jain and K. I. Priyadarsini
Regulatory Toxicology and Pharmacology, 99 (2018) 159-167.
348. Applications of metal selenium/ tellurium compounds in materials science
V. K. Jain and G. Kedarnath
Physical Sciences Rev., (2018) 20170127.
349. Investigation of structure-property correlation in 2,2'-dipyridyl diselenide based derivatives
P.P. Phadnis, S. Nigam, R. Mishra, A. P. Wadawale, M. Kumar, A. Kunwar, C. Majumder, K.I. Priyadarsini and V.K. Jain
Indian J. Chem., Sec A., 58A (2019) 18-28.
350. Accessing copper-tin-sulfide nanostructure from diorganotin(IV) and copper(I) 2-pyridyl thiolates
Adish Tyagi, Goutam K. Kole, A.Y. Shah, A. Wadawale, A.P. Srivastava, M. Kumar, G. Kedarnath and V.K. Jain
J. Organomet. Chem., 887 (2019) 24-31.

351. Synthesis and characterization of some BODIPY-based substituted salicylaldimine Schiff bases
N. Kushwah, S. Mula, A. P. Wadawale, M. Joshi, G. Kedarnath, M. Kumar, T. K. Ghanty, S. K. Nayak and V. K. Jain
J. Heterocyclic Chem., 56 (2019) 2499-2507.
352. Oral administration of 3,3'-diselenodipropionic acid prevents thoracic radiation induced pneumonitis in mice by suppressing NF- κ B/IL – 17/G-CSF/ neutrophil axis
K. A. Gandhi, J. S. Goda, V. V. Gandhi, A. Sadanpurwala, V. K. Jain, K. Joshi, S. Epari, S. Rane, B. Mohanty, P. Chaudhari, S. Kembhavi, A. Kunwar, V. Gota and K. I. Priyadarsini
Free Radical Biology and Medicine, 145 (2019) 8-19.
353. Pyridyl and pyrimidyl chalcogenolates of coinage metals and their utility as molecular precursors for the preparation of metal chalcogenides
V.K. Jain,
New J. Chem., 43 (2019) 11034-11040.

Book Chapters

1. An overview of organoselenium chemistry: From fundamentals to synthesis
V. K. Jain
in 'Organoselenium compounds in biology and medicine', Chapter-1, pp 1-33, Eds. V. K. Jain and K. I. Priyadarsini, RSC, UK (2018) (ISBN: 978-1-78801-029-0).
2. Quantum dots for type III photovoltaics
G. Kedarnath and V. K. Jain
in 'Nanostructured materials for type-III photovoltaics', Chapter-13, pp 436-471, Eds. Peter Skabara and M. A. Malik, RSC UK (2018) (ISBN: 978-1-78262-458-5).
3. Applications of metal-selenium and /-tellurium compounds in materials science
V.K. Jain and G. Kedarnath
In 'Selenium and tellurium reagents in chemistry and materials science'; Chapter 11, pp 383-443, Eds. R. Laitinen and R. Oilunkaniemi, Walther de Gruyter, Germany (2019) (ISBN: 978-11-0529934-0)

Book Reviews

1. Catalysis by metal complexes: Metalloporphyrins catalyzed oxidations, Eds. F. Montanari and L. Casella, Kluwer Academic Publishers, Netherlands, 1994
Review by V.K. Jain and N.M. Gupta, *Indian J. Chem.*, 34 A (1995) 930.
2. IX International Conference on the Chemistry of Selenium and Tellurium (ICCST-9) held at IIT Bombay, 23-27 February 2004
Review by V.K. Jain and H.B. Singh, *Platinum Metals Rev.*, 48 (2004) 116.
3. Inorganic Chemistry (A modern Treatise) by D. Banerjee, Asian Books Pvt. Ltd., New Delhi
Review by V.K. Jain, *Indian J. Chem.*, 52 A (2013) 498-499.

BARC REPORTS

1. Organometallic chemistry in the 21st Century: a preview
V. K. Jain
BARC Newsletter, 177 (1998) 1-7.
2. Magnesium-gallium alloy: A novel material for the preparation of organogallium compounds.
K.B. Bhatt, S.M. Chopade, D. Dutta, V.K. Jain, N. Prasad and A.Y. Shah
BARC/2002/R/001
3. Preparation of organoantimony precursors
K.P. Chaudhari, P.P. Phadnis, H. Mahalakshmi and V.K. Jain
BARC/2002/R/013
4. Preparation of organoarsenic precursors
K.P. Chaudhari, P.P. Phadnis, H. Mahalakshmi, S.S. Garje and V.K. Jain
BARC/2003/I-004
5. Single source molecular precursors for semiconducting metal chalcogenides nanoparticles
G. Kedarnath and V. K. Jain
INCAS Bulletin 6 (2007) 112-119.
6. Preparation of organoselenium compounds.
S. Dey, N. Ghavale, A. Hodage, V. K. Jain, G. Kedarnath, L. B. Kumbhare, P. P. Phadnis, P. Prabh, K. I. Priyadarsini and A. Wadawale
BARC/2009/I-003
7. Organoselenium compounds: A new generation of radioprotectors
A. Kunwar, K.I. Priyadarsini and V.K. Jain
BARC Newsletter, 319 (2011) 1-7.
8. 3,3'-Diselenodipropionic acid (DSePA), a selenocystine derivative: Glutathione peroxidase mimic to preclinical evaluation as radioprotector
A. Kunwar, V. K. Jain, and K. I. Priyadarsini
ISRAPS Bulletin, 26 (2014) 1-9.
9. Development of single source molecular precursors for advanced semiconducting metal chalcogenide materials
G. Kedarnath and V. K. Jain
BARC News Letter, (2015) 88-94.
10. Preparation of high purity Organometallic compounds for semiconductor applications
V.K. Jain
SMC Bulletin, 6:1 (2015) 66-71.
11. Synthetic methods in organoselenium chemistry
V.K. Jain
SMC Bulletin, 8:3 (2017) 5-9.

Invited lectures in national /international conferences and various research institutes and Universities

1. Oxidative addition and reductive elimination of platinum complexes and their behaviour towards acetylenes
IIT Bombay (21st March, 1985).
2. The chemistry of platinum(I).
V.K. Jain
National symposium on unusual valency states in coordination compounds; November 11-13 (1987), BARC, Bombay. I-12.
3. Synthesis, reactivity and redistribution reactions of homo- and hetero-binuclear palladium(II) and platinum(II) complexes.
V.K. Jain
First INDO-SOVIET symposium on Organometallic Chemistry, Rajasthan University, Jaipur, (March 7-11, 1988).
4. Some aspects of organometallic chemistry of platinum.
V.K. Jain
II-Soviet-Indian Symposium on organometallic chemistry, Irkutsk, Institute of Organic Chemistry, Siberian Branch of the Academy of Sciences, Irkutsk, USSR (June 19-24, 1989).
5. Introduction to organometallic chemistry – Two lectures.
UGC sponsored refresher course in Inorganic Chemistry, Institute of Science, Mumbai (1991).
6. Reactions of diorganotin oxides with protic ligands
V.K. Jain
29th Annual Convention of Chemists 1992. A.P.S. University, Rewa (India) (February 24-27, 1993).
7. Applications of NMR spectroscopy in Inorganic Chemistry
RSIC, IIT Bombay (March 1993).
8. NMR spectral studies of binuclear palladium(II) and platinum(II) complexes.
V.K. Jain
Discussion meeting on recent advances in NMR, Indian Institute of Science, Bangalore, (March 15-17, 1993).
9. NMR concept and applications
ACC Thane (22nd December, 1994).
10. Mono-, bi- and high-nuclearity organotin complexes.
V.K. Jain
Symposium on modern trends in inorganic chemistry (6th), University of Hyderabad, (Aug. 17-19, 1995).
11. The chemistry of binuclear palladium(II) and platinum(II) complexes
Department of Chemistry, IIT Bombay (8th November, 1995).
12. Binuclear palladium, platinum complexes and their use in homogeneous catalysis.
V.K. Jain
National Workshop on Catalysis, C.S.M.C.R.I., Bhavnagar, Dec., 20-22 (1995).
13. Organometallic chemistry of transition elements
Winter School of Chemistry, Wilson College, Mumbai (December 1997).
14. Role of ligand bite in stabilizing binuclear palladium(II) and platinum(II) complexes.
V. K. Jain
International symposium on metalloorganic chemistry at the dawn of twenty first century, Rajasthan University, Jaipur (16-18 March, 1998).
15. Chemistry of binuclear palladium and platinum complexes (Part I)
Institute of Inorganic Chemistry, Novosibirsk (Russia) (September 1998).
16. Chemistry of binuclear palladium and platinum complexes (Part II)
Institute of Inorganic Chemistry, Novosibirsk (Russia) (September 1998).

17. Mono-, bi- and high-nuclearity organotin compounds
Institute of Inorganic Chemistry, Novosibirsk (Russia) (September 1998).
18. NMR spectroscopy (Two lectures)
UGC refresher course in Chemistry, Ruia College, Mumbai (October 1998).
19. Chemistry of palladium and platinum with organochalcogenides
V. K. Jain
35th Annual Convention of Chemists, Karnataka University, Dharwad, (November 4-7, 1998).
20. Introduction to organometallic chemistry: UGC refresher course in Chemistry
Institute of Science, Mumbai (December 1998).
21. Molecules to Materials: Platinum group metals organochalcogenolates to metal chalcogenides.
V. K. Jain
International Conference on Chemistry and 36th Annual Convention of Chemists, Calcutta (December 11-16, 1999).
22. Palladium and platinum organochalcogenolates and their transformation into metal chalcogenides.
S. Dey, S. Narayan, A. Singhal and V. K. Jain (*Invited Lecture*)
Symposium on Modern Trends in Inorganic Chemistry, I.I.Sc. Bangalore, January 18 -20, 2000.
23. Molecules to Materials: Palladium/Platinum organochalcogenolates to chalcogenides
V.K. Jain
Indo-Russian Seminar on Trends in Chemical Sciences, Department of Chemistry, Delhi University, Delhi (24-25, January 2000).
24. Molecules to materials. A case study of platinum group organochalcogenolates to metal chalcogenides
Department of Chemistry, B.H.U. Varanasi (August 2000).
25. Molecules to materials: Platinum group metals organochalcogenolates to metal chalcogenides
Institute of Inorganic Chemistry, University of Stuttgart (Germany) (September 2000).
26. An introduction to organometallic chemistry (Two lectures)
Refresher course in Inorganic Chemistry, Pune University, Poona (24th November 2000).
27. Some organometallic chemistry of group 15 elements
V.K. Jain (**Chemical Research Society of India - Medal Lecture**)
Third National Symposium in Chemistry, Panjab University, Chandigarh (February 2-4, 2001).
28. Fluxional organometallic compounds
One day Workshop on Inorganic Chemistry, Mumbai University, Mumbai (8th March, 2001).
29. Molecules to materials: Platinum group chalcogenolates to chalcogenides
Rajasthan University, Jaipur (5th July 2001).
30. Organometallic chemistry at the interface of materials science
Refresher course on Organometallic Chemistry, Mumbai University, Mumbai (October 2001).
31. Organometallic chemistry at the interface of materials science
Centre for Compositional Characterization of Materials, Hyderabad (November 2001).
32. Chemistry of palladium and platinum tellurolates
V.K. Jain and S. Dey
The chemistry and applications of alkoxy, aryloxy and allied derivatives of elements, Rajasthan, University, Jaipur 10-13 January 2002.
33. Applications of NMR spectroscopy of main group elements to chemical problems
Winter School in Chemistry, IIT Bombay (March 2002).
34. An introduction to CVD and the chemistry of main group organometallic precursors for inorganic materials
Winter School in Chemistry, IIT Bombay (March 2002).
35. Applications of ¹⁹⁵Pt NMR spectroscopy to chemical problems
Graduate College on Magnetic Resonance, University of Stuttgart (Germany) (24th June 2002).

36. Organometallic chemistry at the interface of materials science. Precursors for metal chalcogenides
Institute of Inorganic Chemistry, University of Stuttgart (Germany) (9th July 2002).
37. Organometallic chemistry at the interface of materials science: precursors for metal chalcogenides and related derivatives.
V. K. Jain
39th Convention of Chemists, Nagarjuna University, Nagarjunanagar, Andhra Pradesh, December 22-26, 2002.
38. Molecular precursors for metal pnictides and chalcogenides.
V.K. Jain
“The interaction of chemistry teaching with research and industry”, Rajasthan University, Jaipur, 15-17 January 2003.
39. Inorganic synthesis at the edge of materials science.
V.K. Jain
Recent advances in methods of synthesis in chemistry, K.J. Somaiya College, Mumbai, 7-8 February, 2003.
40. A retero-synthetic approach for inorganic materials.
SAP & UGC sponsored workshop on “Recent advances in stereochemistry, organometallic chemistry and environmental studies”, The Institute of Science, Mumbai, (25-27 February 2003).
41. Molecular tectonics: An approach to design inorganic materials.
Novel Materials and Structural Chemistry Division, BARC (28th March 2003).
42. Inorganic synthesis at the edge of material sciences: chemistry of palladium and platinum telluroates.
V.K. Jain
“Modern Trends in Organometallic and Catalytic Chemistry” – Mark Vol’pin (1923-1996) Memorial International Symposium, A.N. Nesmeyanov Institute of Elementoorganic Compounds, Moscow, 18-23 May, 2003
43. Organometallic Compounds
One day Workshop on Inorganic Chemistry, Vaze College, Mulund, Mumbai University (6th July, 2003).
44. Chemistry of N,N-Dimethylalkylchalcogenolate complexes of palladium(II) and platinum(II).
V.K. Jain (Invited Lecture)
9th International Conference on the Chemistry of Selenium and Tellurium, IIT Bombay, February 23-27, (2004).
45. Design and purification of group V organometallic precursors.
V.K. Jain (Invited Lecture).
High Purity Materials for Advanced Electronics, BARC, July 9, 2004.
46. NMR Spectroscopy
Refresher course in spectroscopy, Ramanarain Ruia College, Matunga, Mumbai, (18th October, 2004).
47. N,N – Dimethylaminoalkylchalcogenolates : A versatile family of hybrid ligands.
V.K. Jain (Invited Lecture)
23rd Annual conference of the Indian Council of Chemists, K.C. College, Mumbai (October 29 – 31, 2004)
48. Synthesis and purification of some main group organometallic precursors for compound semiconductors.
V.K. Jain (Invited Lecture)
International symposium on ultrapure materials; Processing, characterization and applications, C-MET, Hyderabad, (November 22 –23, 2004)
49. Alchemists of 21st Century
V.K. Jain (Invited Lecture)
National seminar on “Challenges and perspectives in the chemical sciences in the 21st Century”, Wilson college, Mumbai, (December 6, 2004.)
50. Organometallic chemistry at the edge of materials science
V.K. Jain (Invited Lecture)
Workshop on organometallic chemistry, Bhabha Atomic Research Centre, Mumbai – 400085, (April 18-20, 2005).

51. Synthesis and characterization of single source molecular precursors for the preparation of metal chalcogenides
V. K. Jain (Invited lecture)
Modern Trends in Inorganic Chemistry-XI, IIT Delhi (December 8-10, 2005).
52. Introduction to organometallic chemistry
Refresher course in chemistry for university teachers, Mumbai University, Mumbai (23rd December 2005).
53. Applications of organometallic compounds.
Refresher course in chemistry for university teachers, Mumbai University, Mumbai (23rd December 2005).
54. Molecules to materials: Chemistry of molecular precursors for metal chalcogenide nano-particles
V.K. Jain (Invited lecture)
Recent Trends in Inorganic and Analytical Chemistry, University of Pune, September 1-2 (2006).
55. Alchemists of 21st Century.
Ruia College, Matunga, Mumbai (25th November 2006).
56. Chemistry of molecular precursors for II-VI and III-VI materials
V.K. Jain (Invited lecture)
International Conference on Nano-materials for Electronics (ICNME-2006) , CMET, Pune, 27-29 November 2006.
57. A chemical expedition to materials science: Molecular precursors for metal chalcogenides.
Department of Chemistry, Indian Institute of technology, Bombay (11 December 2006).
58. Synthesis and characterization of palladium and platinum chalcogenolates and their conversion into metal chalcogenides
V.K. Jain (Invited lecture)
Silver Jubilee Conference of Indian Council of Chemists, Birla College, Kalyan, 27-29 December 2006.
59. Chemistry of palladium and platinum organochalcogenolate complexes: Molecular precursors for metal chalcogenides
V. K. Jain (invited lecture)
National Symposium on "Recent Trends in Organometallic Compounds and their Industrial Applications", Kalinga Institute of Industrial Technology (KIIT, University) Bhubaneswar, 26-28 February 2007.
60. A four-decade exploration of inorganic materials
V. K. Jain
TSC, BARC, Mumbai (6th March 2007).
61. A Chemical expedition to materials science: Molecular precursors for metal chalcogenides.
School of Chemistry, University of Hyderabad, Hyderabad, 12 March 2007.
62. Organochalcogenolates of palladium(II) platinum(II): Versatile molecular precursors for metal chalcogenides.
V.K. Jain
Tenth International Conference on the Chemistry of Selenium and Tellurium, Lodz, Poland, (22-27 June, 2007).
63. Inorganic and organometallic compounds: Toxicology and pharmacology
V.K. Jain
Winter School in Bioinorganic Chemistry, Department of Chemistry, I.I.T. Bombay, 17-30 November, 2007.
64. Applications of inorganic and organometallic compounds (Part-I and Part-II)
V.K. Jain
Modern Methods in Chemistry, (UGC Refresher course in Chemistry) University of Mumbai 3-22 December, 2007.
65. Chemistry of molecular precursors for compound semiconductor nanoparticles
V.K. Jain (Prof. Priyadarshan Ray Memorial award -2006)
44th Annual Convention of Chemists, Mahatma Gandhi Institute of Applied Sciences, Jaipur, 23-27 December 2007.

66. Metallo-organic precursors for semiconductor nanoparticles
V.K. Jain
V.G. Vaze College, Mulund (E) Mumbai, 12th January 2008.
67. Allylpalladium and orthometalated palladium/ platinum complexes with organochalcogen ligands: Synthesis, structures and their conversion into metal chalcogenides.
V.K. Jain, S. Dey and N. Ghavale (Invited Lecture)
International Conference on organometallic and coordination Chemistry, Nizhny Novgorod, Russia (September 2-8, 2008).
68. Molecular precursors for the synthesis of uniformly sized metal Chalcogenide nanoparticles
V. K. Jain (*Invited lecture*)
Chemistry of organoelement compounds: Results and prospects, A.N. Nesmeyanov Institute of Organoelement Compounds, Moscow, 28th September -2nd October 2009.
69. A chemical expedition to nano-materials
V.K. Jain
V.E.S. College of Art, Commerce and Science (affiliated to Mumbai University), Organized by Materials Research Society of India (MRSI), Mumbai Chapter, 22 November, 2008.
70. Organogallium and indium complexes with dithiolate and oxo ligands: Synthesis, structures and applications
V. K. Jain, A. Wadawale, N. P. Kushwah and M. K. Pal (Invited Lecture).
Symposium on Modern Trends in Inorganic Chemistry (MTIC-XIII), I. I. Sc., Bangalore, December 7-10, 2009.
71. Molecular precursors for the synthesis of uniformly sized metal Chalcogenide nanoparticles
R. Sharma, G. Kedarnath, A. Wadawale and V. K. Jain (invited Lecture)
National Conference on "High Tech Materials: Synthesis, characterization and applications", Disha Institute, Raipur, December 14-16, 2009.
72. An introduction to organometallic chemistry
Referresher course in Chemistry for college teachers, Mumbai University, Kalina Campus (19 December 2009).
73. Applications of Organometallic compounds
Referresher course in Chemistry for college teachers, Mumbai University, Kalina Campus (19 December 2009).
74. Organochalcogen compounds in materials science and biology
V.K. Jain
Scientific Development and our Responsibility", Gyan Sadhana Foundation, Karnatak Jain Bhawan, Bangalore, 29-31 January 2010.
75. Organochalcogen compounds in materials science and biology
Department of Chemistry, Tokai University, Japan (22nd February, 2010)
76. Role of Electron microscopic techniques in semiconductor nanomaterials research
G. Kedarnath and V.K. Jain
International conference on advances in electron microscopy and related techniques, BARC, 8-10 March, 2010
77. Organochalcogen compounds in materials science and biology
Department of Chemistry, Indian Institute of Technology, Bombay (12 March, 2010).
78. Organochalcogen compounds in biology
V. K. Jain
In course Symposium on Biological inorganic Chemistry, Indian Institute of Technology, Bombay, April 10, 2010.
79. Chemistry of pyridine-2-selenolate and -tellurolate complexes of platinum group metals and main group elements.
V.K. Jain, G. kedarnath, R. S. Chauhan, A. P. Wadawale and R. K. Sharma
International Conference on "Topical problems of organometallic and coordination chemistry" Nizhny Novgorod (Russia), September 3-9, 2010.

80. Main group metal chalcogenolate complexes and their utility as molecular precursors for metal chalcogenides
R. Sharma, R.S. Chauhan, G. Kedarnath, A. Wadawale and V. K. Jain
National Symposium on Frontiers in Main Group and Organometallic Chemistry (NSFMOC), Indian Institute of Science, Bangalore, 20 November, 2010.
81. Metal chalcogenolate complexes for the preparation of metal chalcogenide nanomaterials.
V. K. Jain
3rd International Symposium on Materials Chemistry (ISMC-2010), BARC, Mumbai, 7-11 December 2010
82. Allyl and cyclometallated complexes of palladium, platinum and iridium: Synthesis, structures and properties.
V.K. Jain
National Conference on "Recent trends in organometallic compounds and industrial applications "(OMCA 2011), KIIT, Bhubneshwar, 26-28 February, 2011
83. Allyl and cyclometallated complexes of palladium, platinum and iridium: Synthesis, structures and properties.
V.K. Jain
National Symposium on "Organometallic Chemistry and organic synthesis: Highlights and New Perspectives"
North Easter Hill University Shillong, 28-29 March 2011.
84. Allyl and cyclometalated complexes of palladium and platinum: Synthesis, structures and thermal behavior
V.K. Jain
3rd Asian Conference on Coordination Chemistry (ACCC-3) India Habitat Centre, New Delhi, October 17-20, 2011
85. Research and development on highpurity materials: challenges and opportunities
V.K. Jain
DAE –BRNS National Workshop on materials chemistry (functional materials0 (NWMC), BARC, December 7-8, 2011.
86. Organoselenium compounds: A new generation of radio-protectors and mimics of glutathione peroxidase
V.K. Jain, A.S. Hodge, C.P. Prabhu, P.P. Phadnis, A. Wadawale, L. B. Kumbhare, B. Singh, A. Kumar and K.I. Priyadarsini
2nd Global Scientists & Engineers conference on Scientific Development and our responsibility, Organized by Gyan Sagar Science Foundation, Mumbai (7-8 January 2012).
87. Research and development on high purity materials: Challenges and opportunities
V.K. Jain
National Conference 'Towards Excellence in Science', Institute of Science Golden Jubilee Trust Fund, Institute of Science, Mumbai (19-20 January 2012).
88. Oxidative addition reactions of organochalcogen ligands to low valent palladium and platinum complexes and isolation of several serendipitous products
V. K. Jain
National Conference on Frontiers in Chemical Sciences, Manipur University, Imphal (20-21 March 2012).
89. Applications of organometallic compounds
(i) Catalysis
(ii) Materials science
(iii) Toxicology and pharmacological aspects
Refereseach course in Chemistry organized by Mumbai University, 8th October 2012.
90. Chemistry of palladium and platinum chalcogenolate complexes with reference to their relevance as catalysts in C-C and C-E bond formation
V. K. Jain (Prof. W.U. Malik Memorial Award, Indian Council of Chemists)
31st Annual conference of ICC, Saurashtra University, Rajkot (26-28 December 2012).
91. Molecular precursors for the synthesis of uniformly sized metal chalcogenolate nanoparticles
V. K. Jain (Plenary lecture)
National Conference on Chemistry of Chalcogens, Defence Institute of Advanced Technology, Pune (14-15 January, 2013).
92. Peeping in metal catalysed reactions
Chemistry Division, BARC, Mumbai (9 May 2013)

93. Peeping in metal catalysed reactions
School of Chemical Sciences, Devi Ahilya Vishwa Vidyalaya, Indore (12 July 2013)
94. A quest for energy from greenhouse emissions: Carbon dioxide utilization for C-H bond formation
Chemistry Colloquium, BARC, 21 August 2013.
95. Synthesis, structures and utility of organo-gallium and -indium complexes with oxo and thio ligands
V. K. Jain, A. Wadawale, N.P. Kushwah and M. K. Pal (invited lecture)
International Conference "Organometallic and coordination chemistry: Fundamentals and applied aspects",
Nizhny Novgorod (Russia) September 1-7, 2013.
96. Applications of inorganic and organometallic compounds
(i) Catalysis-I
(ii) Catalysis-II
(iii) Materials science
(iv) Toxicology and pharmacological aspects
(Endowment lectures of ICT Mumbai: Dharamsi Morarji Chemical Co. Visiting Fellowship -2013)
97. Chemistry of metal chalcogenide nano-materials
V.K. Jain (Invited lecture)
3rd International conference on "Scientific Development and our responsibility" organized by Gyan sagar
Science Foundation, Convention Centre, New Delhi, 8-9 February 2014.
98. Cyclometalation of seleno and telluro ether ligands
S. Kolay, A. Wadawale, D. Das and V.K. Jain
New Directions in Chemical synthesis-II (Inorganic synthesis: A felicitation to Prof. Herbert W. Roesky, IIT
Bombay, 10-11 December 2014.
99. Kaleidoscope of Chemistry Division, BARC
V.K. Jain (evening lecture)
5th Interdisciplinary Symposium on Materials Chemistry (ISMC-2014), 9-13 December 2104
100. Cyclometalation of seleno and telluro ether ligands
S. Kolay, A. Wadawale, D. Das and V.K. Jain
National Conference on Chemistry of Chalcogens and Related Topics (NC3-2015); Defence Institute of
Advanced Technology (DIAT) Pune, 12-13 January 2015.
101. Applications of inorganic and organometallic compounds
(i) Catalysis
(ii) Materials science
Refresher course in Chemistry, Lucknow University, Lucknow, 16 February 2015.
102. Organoselenium compound: A family of new generation of radio-protectors
V.K. Jain, P.P. Phadnis, Amit Kunwar and K.I. Priyadarsini
Rashtriya vaigyanik sangosthi, organized by Hindi Vigyan Sahitya Parishad at Shri Mata Vaishno Devi
University, Jammu (25-27 February, 2015).
103. Research and development on high purity materials: Challenges and opportunities
V.K. Jain
Theme meeting on 'Chemistry in Nuclear Technology' IGCAR, Kalpakkam, 9-10 July 2015.
104. Copper, silver and gold pyridyl and pyrimidyl chalcogenolates and their utility as molecular precursors for
metal chalcogenides
V. K. Jain, G. K. Kole, G. Kedarnath and A. Wadawale
International conference on multifunctional materials for future applications (ICMFA-2015), IIT, BHU,
Varanasi, 27-29 October 2015.
105. Organoselenium compounds: A family of radioprotectors
V.K. Jain, P.P. Phadnis, A. Kunwar and K.I. Priyadarsini
National conference on 'New horizons of Science in the Development of Agriculture, Energy and Health',
Central Institute of Medicinal and Aromatic Plants, Lucknow, 2-6 November 2015.
106. Cyclometalation of heavier chalcogen ligands
V.K. Jain, S. Kolay, A. Wadawale and D. Das
13th International Conference on the Chemistry of Selenium and Tellurium Gifu, Japan (23-27 May 2016).

107. Research and development on high purity materials: Challenges and opportunities
V.K. Jain
Tata Institute of Fundamental Research, Mumbai, 17th June 2016.
108. Molecular tectons of two-dimensional (2-D) inorganic chalcogenides
Society for Materials Chemistry, Chemistry Division, BARC, Mumbai; 29 July 2016.
109. An overview of R & D activities of Chemistry Division, BARC
Water & Steam Chemistry Division, Kalpakkam, 8 July 2016.
110. An overview of R & D activities of Chemistry Division, BARC
NCCCM, Hyderabad, 15 July 2016.
111. Research & Development on high purity materials: Challenges and opportunities
Jaypee University of Engineering & Technology (JUET), Guna (MP) 10 November 2016.
112. Research & Development on high purity materials: Challenges and opportunities
5th Conference on 'Scientific Development and our Responsibility', Gyan Sagan Science Foundation, Muzaffarnagar (U.P.), 14-15 October 2017.
113. Applications of Inorganic and organometallic compounds in materials science
Refresher course for University teachers, organized by Department of Chemistry, University of Mumbai, Kalina Campus, Mumbai, 7 November 2017.
114. Palladium and platinum complexes of chalcogen ligands as catalysts in C-C and C-E bond formation
Conference on Advances in Catalysis for Energy and Environment (CACEE), TIFR, Mumbai, January 10-12 (2018).
115. Retrosynthesis of 2-D metal chalcogenides
V. K. Jain
UM-DAE-CEBS, Mumbai, 20 March 2018.
116. Internally functionalized multifaceted organochalcogen compounds
V.K. Jain (Inaugural Lecture)
National Conference on Chalcogenide Compounds (NC3-2019), Defense Institute of Advanced Technology (DIAT) Pune, 14-15 March 2019.
117. PVs, LEDs and Organometallic Chemistry
V. K. Jain (invited lecture)
Summer School on 'Science of materials', sponsored by all the three science academies of India; UM-DAE-CEBS, 6th May-14th June 2019.
118. Internally functionalized multifaceted organochalcogen compounds
V.K. Jain (Plenary lecture)
Workshop on the Network selenium, sulfur and redox catalysis (WSeS-8), University of Perugia, Italy (30 May-1 June 2019).
119. Pyridyl and pyrimidyl chalcogenolates of coinage metals and their utility as molecular precursors for the preparation of metal chalcogenides
V.K. Jain (invited lecture)
14th International conference on the chemistry of selenium and tellurium (ICCST-14), University of Cagliari, Italy (3-7 June, 2019).
120. Multifaceted N-heteroaryl selenium compounds and their coinage metal complexes
V.K. Jain (invited lecture)
8th International Selenium conference; Thapar Institute, Patiala, (Punjab) November 20-23 (2019).

Chairperson for the Scientific Sessions in Conferences/Symposia/Seminars









- (i) 29th Annual Convention of Chemists-1992, APS University, Rewa.
- (ii) Indo-Russian seminar on Trends in Chemical Sciences, Delhi University (2000).
- (iii) International Conference on Emerging Trends in Chemical Sciences, Mumbai University (23-25 January 2007).
- (iv) X- International Conference on the Chemistry of Selenium and Tellurium, Lodz, Poland, (22-27 June, 2007).
- (v) 12th Modern Trends in Inorganic Chemistry, IIT Madras, 6-8 December 2007.
- (vi) International conference on "Hydrogen & hydrogen storage: Methods and Materials", I.I.Sc., Bangalore, January 3-6, 2009.
- (vii) National symposium on BARC technologies for development of Rural India, BARC, Mumbai (25-26 November 2009).
- (viii) 13th Modern Trends in Inorganic Chemistry, I.I.Sc., Bagalore, 7-10 December 2009.
- (ix) National conference on High Tech Materials: Synthesis, characterization and applications, Dish Institute of Management and Technology (DIMAT) Raipur, (14-16 December, 2009)
- (x) Scientific Development and our Responsibility, organized by Gyan Sagar Science foundation, Bangalore, 29-31 January, 2010.
- (xi) International Conference on supramolecular chemistry and nanomaterials (ICSN-2011), Mumbai University, Mumbai, 14-16 February 2011.
- (xii) National conference on "Recent trends in organometallic compounds and their industrial applications" OMCA-211; KIIT University, Bhubneswar, 26-28 February 2011.
- (xiii) National Symposium on "Organometallic Chemistry and organic synthesis: Highlights and New Perspectives" North Easter Hill University Shillong, 28-29 March 2011.
- (xiv) 3rd Asian Conference on Coordination Chemistry (ACCC-3) India Habitat Centre, New Delhi, October 17-20, 2011 organized by IIT Kanpur and IIT Delhi
- (xv) Workshop on instrumental methods in chemistry organized by the Maharashtra Academy of Sciences-BARC and Ruia College, December 1-2, 2011.
- (xvi) 2nd Global Scientists & Engineers conference on Scientific Development and our responsibility, Organized by Gyan Sagar Science Foundation, Mumbai (7-8 January 2012).
- (xvii) 24th Research Scholars' Meet (RSM-2012), jointly organized by SIES college and Indian Chemical Society (Mumbai Branch), SIES College Mumbai (17-18 February 2012).
- (xviii) National Conference on Frontiers in Chemical Sciences, Manipur University, Imphal (20-21 March 2012).
- (xix) 2nd National Symposium on "BARC Technologies for Development of Rural India (BTDR-13)", Deen Dayal Upadhyay Gorakhpur University, 12-13 March, 2013.
- (xx) 3rd International conference on "Scientific Development and our responsibility" organized by Gyan sagar Science Foundation, Convention Centre, New Delhi, 8-9 February 2014.
- (xxi) National Symposium on "Science and Technologies in Ancient Indian Scriptures" Organized by BARCOA, Mumbai, 21-22 April, 2014.
- (xxii) National Confernce on Ancient Science and Technology: Retrospect and Aspirations (ASTRA-2015); Fergusson College, Pune, 10-11 Janaury 2015.
- (xxiii) National Conference on Chemistry of Chalcogens and Relate Topics (NC3-2015); Defence Institute of Advanced Technology (DIAT) Pune, 12-13 January 2015.


- (xxiv) UGC-SAP sponsored National conference on 'Advanced and Innovations in Chemical Sciences; Department of Chemistry, University of Mumbai, 12-13 February, 2105.
- (xxv) Rashtriya vaigyanik sangosthi, organized by Hindi Vigyan Sahitya Parishad at Shri Mata Vaishno Devi University, Jammu (25-27 February, 2015).
- (xxvi) National conference on 'Current trends in Analytical Chemistry ' (CTAC-2015)BARC, Mumbai, 26-29 May 2015.
- (xxvii) Interantioal conference on multifunctional materials for future applications (ICMFA-2015), IIT, BHU, Varanasi, 27-29 October 2015.
- (xxviii) 13th Trombay Symposium on Radiation & Photochemistry (TSRP-2016) and 6th Asia Pacific Symposium on Radiation Chemistry (APSRC-216), BARC Mumbai, 5-9 January 2016.
- (xxix) DAE-BRNS 1st Workshop on Thermal Analysis organized by ITAS, BARC, Mumbai, 2021 Decmber 2016.
- (xxx) Recent Advances in Chemical Biology, one day meeting of Society of Biological Chemistry (Mumbai Chapter, organized by MU-DAE-CEBS, University of Mumbai, 19 August 2017.
- (xxxi) UGC-SAP sponsored National Conference on 'Recent developments in chemical sciences', Departemnt of Chemistry, University of Mumbai (8-9 March 2018).
- (xxxii) National Symposium on 'Materials in Healthcare', School of Sciences, GITAM (Deemed to be University) Hyderabad, 6-8 September 2018.
- (xxxiii) 7th Interdisciplinary Symposium on Materials Chemistry (ISMC), BARC, Mumbai, 4-8 December, 2018.
- (xxxiv) National Conference on Chalcogenide Compounds (NC3-2019), Defense Institute of Advanced Technology (DIAT) Pune, 14-15 march 2019.
- (xxxv) DAE-BRNS Life Science Symposium on 'Molecular and Cellular Responses to Stresses and Cancer Therapeutics' BARC Mumbai, 28-30 March 2019.
- (xxxvi) 14th International conference on the Chemistry of selenium and tellurium (ICCST-14); Santa Margherita di Pula (CA), Sardinia, Italy, 3-7 June 2019.
- (xxxvii) Member of the Jury team for assessment of poster and short oral communications in WSeS-8 Perugia, Italy (30 May-1 June 2019) and 14th -ICCST, Sardinia, Italy (3-7 June 2019).
- (xxxviii)Chaired two Scientific Sessions in the 'Symposium on Advances at the Interface of Biology and Chemistry', a symposium of The Society for Biological Chemists, organized by the biosciences Group, BARC during 31 October -3rd November 2019.
- (ixL) Chaired a Scientific Session in 8th International Selenium conference; Thapar Institute, Patiala, (Punjab) November 20-23 (2019).
- (xL) Chaired a Scientific Session in 32nd ISMAS Symposium on mass Spectrometry, Bhabha Atomic Research Centre, Mumbai, 27-30 November 2019

Ph.D. Students of Dr. V. K. Jain





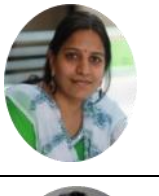


S. No.	Student	Brief details
1.		Dr. (Mrs.) V. B. Mokal Science Governor of Preston Park Primary school, 5, Preston Waye, Harrow, Middlesex, HA3 0QG, London (UK) Mobile: 0044- 7794115720; E mail: vbmokal200@yahoo.com Ph.D. Thesis: 'Synthesis, reactivity and characterization of organotin(IV) compounds' (Mumbai University 1993)
2.		Dr. Satyajeet Chaudhury Head Actinides Processing Section, Fuel Chemistry Division, BARC, Mumbai e-mail: saty@barc.gov.in Ph.D. Thesis: 'Synthesis and characterization of organoplatinum compounds' (Mumbai University 1993)
3.		Dr. (Mrs.) Anshu Singhal Scientific Officer-G, Chemistry Division, BARC, Mumbai Ph.D. Thesis: 'The chemistry of some bi- and tri-nuclear organopalladium and platinum complexes'(Mumbai University 1996)
4.		Prof. S. S. Garje Department of Chemistry, University of Mumbai, Vidyanagari, Santacruz (East), Mumbai -400 098 Tel: 2654 33 68 ; Mob: +91-9969382865 Email: ssgarje@chem.mu.ac.in Ph.D. Thesis: 'The organometallic chemistry of some arsenic and antimony compounds' (Mumbai University 1996)
5.		Dr. Sanjay Narayan Manager (R&D) R&D Centre, United Phosphorous Limited , Plot No. C-12, Road No. 16, Wagle Industrial Estate, Thane (West)- 400604 E-mail: sanjanand@yahoo.com ; Tel: 022-25827828 Ph.D. Thesis: 'Organometallic chemistry of some platinum group metals with chalcogenide ligands' (Mumbai University 1999)
6.		Dr. (Mrs.) Dimple Dutta Scientific Officer-G, Chemistry Division, BARC, Mumbai Ph.D. Thesis: 'Synthesis, characterization and reactivity of some gallium and indium compounds' (Mumbai University 2001)
7.		Dr. Kallola Kumar Swain Scientific Officer-F, Analytical Chemistry Division, BARC, Mumbai e-mail: kallola@barc.gov.in Ph.D. Thesis: 'A study on pre-concentration of trace impurities in environmental and high purity inorganic materials' (Mumbai University 2003)
8.		Dr. (Mrs.) Anjali Gupta, Ph.D. Thesis: 'Synthetic studies and structural aspects of some novel organometallic compounds of arsenic and antimony incorporating nitrogen and, oxygen and / or sulfur atoms' (joint supervision with Prof. R. Bohra) (Rajasthan University, Jaipur 2002)
9.		Dr. (Miss.) Vinita Sharma Ph.D. Thesis: 'Synthetic studies and spectroscopic aspects of some novel organometallic compounds of tin (and related metals) incorporating nitrogen, oxygen and /or sulfur atoms' (joint supervision with Prof. R. Bohra) (Rajasthan University, Jaipur 2002)

10.		(late) Dr. Mahalaxmi Hariharan Ph.D. Thesis: A study of some novel compounds of Group 15 elements : Their synthesis and characterization (Mumbai University 2003)
11.		Dr. Sandip Dey Scientific Officer-G, Chemistry Division, BARC, Mumbai Mobile No: 9969062084; Email: dsandip@barc.gov.in Ph.D. Thesis: 'Synthesis and characterization of organochalcogenolates of platinum group metals' (Mumbai University 2003)
12.		Dr. Prasad Padmakar Phadnis Scientific Officer-E, Chemistry Division, BARC, Mumbai Mobile No: 9702533404; Email: phadnisp@barc.gov.in Ph.D. Thesis: 'Synthesis, purification and ligand chemistry of some organometallics of group V elements' (Mumbai University 2004)
13.		Dr. Nitin C. Bagkar Director, Nanoin Korea Co. Ltd., Korea Email: inceo@nanoin.us ; nanoine@gmail.com Ph.D. Thesis: 'Studies on novel properties of Prussian blue analogues and their composites with conducting polymers' (Mumbai University 2005)
14.		Dr. Shamik A. Ghoshal Senior Manager; Nanotechnology Division; Platform Speciality Chemical, 89/1 Yeswantpur Industrial Estate, Bangalore 560022 Mobile: 7760996042; E-mail: shamik123@rediffmail.com Ph.D. Thesis: 'Synthesis and characterization of gallium and indium complexes derived from some nitrogen and chalcogen ligands' (Mumbai University 2007)
15.		Dr. G. Kedarnath Scientific Officer-F, Chemistry Division, BARC, Mumbai Mobile No: 9820718998; Email: kedar@barc.gov.in Ph.D. Thesis: 'Design, synthesis and characterization of molecular precursors of II-VI materials' (Mumbai University 2008)
16.		Dr. Ninad D. Ghavale Scientist SABIC Research and Technology Pvt. Ltd., Bangalore Mobile: 9987 27 9939; Email: ninad.ghavale@sabic.com Ph.D. Thesis: 'Synthesis, reactivity and characterization of bi- and hi-nuclearity complexes of palladium and platinum with chalcogen ligands' (Mumbai University 2010)
17.		Dr. Liladhar B. Kumbhare Scientific Officer-F, Chemistry Division, BARC, Mumbai Mobile No: 9224348457; Email: liladhar@barc.gov.in Ph.D. Thesis: 'Design, synthesis and characterization of platinum group chalcogenolates' (Mumbai University 2011)
18.		Dr. Sanyasi Naidu Boddu Scientist B, Institute of Nano Science and Technology, Habitat Center, Phase 10, Sector 64, Mohali, Punjab-160062 Mobile No: 9646466706; Email: naidu245@gmail.com Ph.D. Thesis: 'Synthesis and characterization of lanthanide ions doped nanoparticles' (Dr. V. Sudarsan as co-guide) (Homi Bhabha National Institute 2012)

19.		<p>Dr. Rohit Singh Chauhan Assistant Professor Department of Chemistry, K. J. Somaiya College of Science and Commerce Vidyavihar, Mumbai-400077 Mobile: 09320870781; E-mail: rcevergreen@gmail.com Ph.D. Thesis: 'Platinum group metal chalcogenolates: Synthesis, spectroscopy and structures' (Homi Bhabha National Institute, 2012)</p>
20.		<p>Dr. Ananda Shamrao Hodage Research Analyst Crest Pvt. Ltd., Upper Ground Floor, Tower - 8, Magarpatta City, Hadapsar, Pune 411013 Mobile: 09930836094; Email: sanjayanand2007@gmail.com Ph.D. Thesis: 'Design, synthesis and characterization of organoselenium compounds' (Mumbai University 2013).</p>
21.		<p>Dr. Rakesh Kumar Sharma Research Scientist (Manager), Reliance Technology Group, Reliance Industries Limited CU-116, First Floor TC30B , Reliance Corporate Park, Reliance Industries Limited, Thane- Belapur Road, Ghansoli, Navi Mumbai -400701 Mobile: 7710074264; E-mail: Rakesh.Kuma.Sharma@ril.com Ph.D. Thesis: 'Synthesis and characterization of single source molecular precursors for binary and ternary materials' (Mumbai University 2013).</p>
22.		<p>Dr. Parashiva Prabhu C. Scientist Reliance Industries Limited, Petrochemical R&D CU-150, TC 30B, FF, Reliance Corp Park, Thane Belapur Road, Ghansoli; Navi Mumbai 400 701 Mobile: 7710022827; E-mail: paraprabhu@gmail.com Ph.D. Thesis: 'Synthesis and physic-chemical studies of organoselenium compounds with reference to their biological activities' (Jointly with Dr. K.Indira Priyadarsini) (Mumbai University 2014).</p>
23.		<p>Dr. (Mrs.) Nisha Kushwah Scientific Officer-C, Chemistry Division, BARC, Mumbai Mobile No: 9869250618; Email: knisha@barc.gov.in Ph.D. Thesis: 'Design, synthesis and characterization of organogallium and indium compounds with group V and VI ligands' (Mumbai University 2015).</p>
24.		<p>Dr. Dilip Kumar Paluru Mobile: 8080059298; Email: dilipkumar_paluru@yahoo.co.in Ph.D. Thesis: 'Synthesis and characterization of chalcogenolate complexes of palladium and platinum and their catalytic applications in C-C bond formation' (Mumbai University 2015).</p>
25.		<p>Dr. K.V. Vivekananda Mobile No: 8080059416 ; Email: kvivek18@gmail.com Ph.D. Thesis: 'Synthesis and characterization of multinuclear/ supra-molecular complexes of platinum group metals with chalcogen ligands' (Co-guide Dr. Sandip Dey) (Homi Bhabha National Institute, 2015)</p>
26.		<p>Siddhartha Kolay Scientific Officer-E, Chemistry Division, BARC, Mumbai Mobile No: 9869703859 ; Email: siddharthakolay@yahoo.co.in Ph.D. Thesis: Synthesis, characterization and thermal studies of cyclometalated palladium and platinum complexes derived from chalcogen ligands (Co-guide: Dr. D. Das) (Homi Bhabha National Institute, 2015)</p>

27.		Mrs. Alpa Y. Shah Germanium and tin compounds: Synthesis, characterization and their use as single source molecular precursor (University of Mumbai, April 2018) e-mail: salpa1708@gmail.com
28.		Ramya Gopakumar Nair Investigation of catalytic and optical properties of multi-component transition metal and rare earth-based oxides and chalcogenides for energy and environmental applications (Co-guide: Dr. S. r. Bharadwaj) (University of Mumbai, September 2018) Email: ramyagnair7@gmail.com; mobile No:8291237823

M. Sc. Students of Dr. V. K. Jain

1.		Mr. C. Thinaharan M.Sc. Dissertation: Synthesis and characterization of thermoelectric materials (Mumbai University 2006)
2.		Mr. Kamal P. Chaudhari Scientific Officer-C, Chemistry Division, BARC, Mumbai Mobile No: 9869205236; Email: kamalc@barc.gov.in M.Sc. Dissertation: Synthesis and characterization of some organo -arsenic and -antimony compounds (Mumbai University 2008)
3.		Mr. Suresh M. Chopade Scientific Officer-C, Chemistry Division, BARC, Mumbai Mobile No: 9869035140; Email: csuresh@barc.gov.in M.Sc. Dissertation: Ultrapurification of gallium and indium and their magnesium alloys (Mumbai University 2008)
4.		Mrs. Nisha P. Kushwah Scientific Officer-C, Chemistry Division, BARC, Mumbai Mobile No: 9869250618; Email: knisha@barc.gov.in M.Sc. Dissertation: Synthesis and characterization of some organo -gallium and -indium complexes (Mumbai University 2008)
5.		Mrs. Alpa Y. Shah Scientific Officer-C, Chemistry Division, BARC, Mumbai Mobile No:9920658805; Email: salpa@barc.gov.in M.Sc. Dissertation: Synthesis and characterization of some organometal -germanium compounds (Mumbai University 2009)
6.		Mr. Amey P. Wadawale Mobile No: 9969427788; Email: ameypw@barc.gov.in M.Sc. Dissertation: Structural studies on chalcogenolate complexes of palladium and platinum (Mumbai University 2012)
7.		Mr. Manojkumar Pal Mobile No: 9820317950; Email: mpal@barc.gov.in M.Sc. Dissertation: Organogallium and indium complexes containing group V and VI donor ligands (Mumbai University 2012)

Research Projects

I. B.A.R.C. Projects

- (i) Project coordinator for the “MASCOT Project (Rs.5.00 Crore) on ultra-purification of materials, Government of India (1996-2002). Project No. : CR&D44 (completed)
- (ii) Apex project coordinator “Strategic Materials Development” (Rs.27.23 Crore) Project No. X-R&D-31-(N) MP No.4.10, DAE Project Identification code (PIC) No.10-R&D-BARC-4.10-0200 X –Plan, Government of India. (April 2002 – 2007) (Completed).
- (iii) Sub-Project coordinator “Synthetic inorganic chemistry and its application”, Apex project – “Energy Conversion”. Project identification code: 11-R&D-BAR-5.03-0107 (Rs. 275 Lacs) (April 2008- March 2012) (completed).
- (iv) Apex project coordinator “Chemistry of materials for energy, environment and health” (Rs.58.80 Crore) XII –Plan, Government of India. (April 2012 – 2017) (completed)

II. External Projects

International:

- (i) “Preparation of high purity organometallic compounds for MOCVD” (Exchange visits only) (1999-2001) (completed).
Indo-Russian program under bilateral agreement (Project no. A.2.22) through DST, New Delhi.
Investigators from Russia: Prof. I.K. Igumenov, Institute of Inorganic Chemistry, Novosibirsk, Russia
From India: Dr.V.K. Jain, BARC.
- (ii) “Ultra-pure organometallics of platinum group metals” (Exchange visits only) (2000-2003) (completed).
Indo-German program under bilateral agreement (Project no. IND-99/060)
Investigators from Germany: Prof. W.Kaim, University of Stuttgart, Germany.
From India: Dr.V.K. Jain, BARC.
- (iii) “Carboranes and their complexes as precursors for undoped and doped boroncarbide” (Exchange visits only) (March, 2008- February, 2011).) (completed).
Indo-Russian program under bilateral agreement (Project no. INT/ILTP/B-5.22) through DST, New Delhi.
Investigators from Russia: Prof. V.I. Bregadze, A.N. Nesmeyanov Institute of Organo-element compounds (INEOS) RAS, Moscow, Russia
From India: Dr.V.K. Jain, BARC.
- (iv) “Redox reactions of water soluble selenides, selenoamino acids and sugar conjugates” (Exchange visits only) (2008- 2010) (Completed).
Indo-Japan program under bilateral JSPS agreement (Project no. DST/INT/JAP/P-45/08) through DST, New Delhi.
Investigators from Japan: Dr. M. Iwaoka, Department of Chemistry, Tokai University, Japan
From India: PI – Dr. (Mrs.) K.I. Priyadarsini; Co-PI - Dr.V.K. Jain, BARC.
- (v) “Dichalcogenolate complexes of carboranes and metallocarboranes as structure determining ligands in coordination and supramolecular chemistry”
INT/RFBR/p-71 (2010-2012). (Completed).
DST (India)- Russian Foundation for Basic Research (RFBR, Russia)
From India: Dr. V.K. Jain and Prof. Vladimir I. Brigadze (INEOS) Moscow.
- (vi) Synthesis and reactivity of new dichalcogenocarborane metal complexes
INT/RFBR/P-122 (2012- 2015) (completed)
DST (India)- Russian Foundation for Basic Research (RFBR, Russia)
From India: Dr. V.K. Jain and Prof. Vladimir I. Brigadze (INEOS) Moscow.

National :

- (vii) “Organometallic chemistry of platinum group metal complexes with heterophospholes” (Rs.5,81,177/-) BRNS, DAE (Project no. 37/9/97 R&D-II) (1997-2000) ([completed](#)).
Principal investigator : Prof. R.K Bansal (Rajasthan University, Jaipur)
Principal collaborator : Dr. V.K. Jain (BARC)
- (viii) “Synthesis and purification of some organometallics of groups II, IV, V and VI elements (Zn, Cd, Ge, Sn, Pb, Sb, Bi, Te)” (Rs. 18,49,630/) (July 1999 - June 2002) ([completed](#))
funded by BRNS, DAE (Project no. 98/37/33/BRNS)
Principal investigators : Dr. R. Bohra (Rajasthan University, Jaipur) and Dr. V.K. Jain (BARC)
- (ix) “Investigation on the synthesis, structure and ion exchange properties of new hosts for nuclear waste disposal”
Funded by BRNS, DAE (BRNS project No. : 2005/37/36/BRNS, dated 7th November 2005) (Rs 1421650) ([completed](#))
Principal Investigators: Prof. Srinivasan Natarajan, I.I.Sc. Bangalore and Dr. V.K. Jain (BARC)
- (x) “Synthesis, redox reactions, anti-oxidant enzyme activity and in vitro radioprotection of some aliphatic water soluble organo selenium compounds”
(2008- 2012).
Prospective Research Funding through BRNS
Project No. 2007/38/05-BRNS/2932 ([completed](#))
PI – Dr. (Mrs.) K.I. Priyadarsini; Co-PI - Dr.V.K. Jain, BARC.