

Bio-data

Name Rajesh G. Gonnade



Date of birth 21st March 1974

Institution CSIR-NCL, Pune

Academic and Professional Career

Academic career

<i>Degree</i>	<i>Year</i>	<i>Institution</i>
B. Sc. (Physics, Chemistry, Mathematics)	1995	Nagpur University
M. Sc. (Chemistry)	1997	Nagpur University
Ph. D. (Chemical Crystallography)	2007	University of Pune
JSPS Post-Doctoral Fellow	2009-2011	Kyoto University, Japan

Professional Career

<i>Position Held</i>	<i>Year</i>	<i>Institution</i>
Chargemen II	1997-1998	Ordnance factory, Bhandara (MS)
Scientist B (Junior Scientist)	1998-1999	R&DE(Eng), DRDO, Pune
Scientist B (Junior Scientist)	1999-2003	CSIR-NCL, Pune
Scientist C (Scientist)	2003-2008	CSIR-NCL, Pune
Scientist EI (Senior Scientist)	2008-2012	CSIR-NCL, Pune
Scientist EII (Principal Scientist)	2012- 2016	CSIR-NCL, Pune
Scientist F (Senior Principal Scientist)	2016 – to date	CSIR-NCL, Pune

Awards / prizes / certificate etc.

1	INSA Medal for Young Scientist (Chemistry, 2009).
2	JSPS Post-Doctoral Fellowship
3	Selected for DAAD Post-Doctoral Fellowship

4	Director's Commendation Award for Cover Page Article in the journal Chemical Communication.
5	Mentor for DST Inspire fellows
Publications	
Books	None
Research papers, reports etc.	~250
Conference	42

G. Research Interest

- 1) Crystal structure analysis and study of various intermolecular interactions that stabilizes the crystal lattice.
- 2) Polymorphic phase transition and correlation with molecular packing in crystals
- 3) Design and synthesis of pharmaceutical cocrystals/salts for enhancing the physicochemical properties of APIs using crystal engineering principle by exploiting the knowledge of various intermolecular interactions.
- 4) Polymorphism and solvatomorphism in Active Pharmaceutical Ingredients (API)
- 5) Reactions in molecular crystals (migration, cyclization and trans-esterification) and its correlation with crystal structure.
- 6) Design and Synthesis of Organic and non-Organic scaffolds for Anion Sensing Application
- 7) Chiral separation of drugs and other organic compounds through 'preferential enrichment' and 'preferential crystallization' methods. Conglomerate Separation by entrainment.
- 8) Synthesis of foldamers for study of nature of π -stacking assemblies
- 9) Evaluation of nature of intermolecular interactions using experimental X-ray charge density studies

Teaching Activity

The investigator takes the 3 credit course work on ***X-ray Diffraction and Structures of Solid*** as part of the curriculum of AcSIR (Academy of Scientific and Innovative Research) since 5-6 years. Newly registered Ph.D. students and SRF/PA take this course in order to fulfill their course credit. Being the course-coordinator of the above mentioned subject, he designed the content of the course so as to give sufficient understanding of the theoretical and experimental aspects of chemical crystallography to enable students to understand symmetry concept, crystallization techniques, data collection and reduction, determination and refinement of crystal structures using SHELXTL. Most of the crystallography software's are black box, so more emphasis is given to understand each and every process that take place during crystal structure solution and refinement. The aim was to make students familiar with the latest structure determination software and hands-on training in solving crystal structure and interpretation of the data. He delivers lectures in power point mode, distribute notes/slides, conduct practical's and hands on training sessions on various softwares.

R & D Project Headed/Participated

Sr. No.	Title of the Project	PI / Co-PI / Team Member	Funding Agency	Duration
1	Investigations in 'guest dependent polymorphism' of inclusion complexes of pseudo natural product derivatives: synthesis and X-ray studies of cyclitol	Team Member	Department of Science and Technology (DST)	01. 12. 2002 to 31. 11. 2005

	derivatives and their molecular complexes.			
2	Polymorphic Behavior of Energetic Molecule 1, 1-diamino-2, 2-dinitroethene (FOX-7).	PI	HEMRL (DRDO), Pune	25. 01. 2008 to 24. 12. 2008
3	Synthetic studies directed towards the preparation of cyclitols, quercitols, aminocyclitols and their derivatives from naturally occurring inositols	Co-PI	Department of Science and Technology (DST)	01. 08. 2005 to 31. 01. 2009
4	Acyl transfer reactions in the solid state: quantitative structure – reactivity correlation, mechanism and investigations towards creating supramolecular structures that exhibit acyl transfer reactivity.	Co-PI	Department of Science and Technology (DST)	17. 09. 2009 to 31. 09. 2012
5	Designing the crystal lattice of amino acids and other chiral chemicals <i>via</i> cocrystallization: A step towards their resolution.	PI	CSIR-NCL, Pune	01. 11. 2011 to 31. 10. 2012
6	Single Crystal X-ray analysis of high energy materials and their cocrystals	PI	HEMRL (DRDO), Pune.	01. 08. 2012 to 31. 12. 2013
7	Pharmaceutical Cocrystals: A step towards improving physicochemical properties of API.	PI	CSIR-NCL, Pune	02. 08. 2013 to 30. 09. 2014

8	Single crystal structure determination of drug molecules	PI	M/s Torrent Pharmaceutical Limited (TPL), Gandhinagar, Gujrat.	18. 03. 2014 to 31. 07. 2015
9	Organic Reactions in Generating Innovative and Natural Scaffolds (ORIGIN)	Team Member	CSIR NMITLI, GOI, Department of Scientific and Industrial Research, CSIR, New Delhi.	01. 04. 2012 to 31. 03. 2017
10	Single Crystal X-ray Analysis of Pharmaceutical compounds and their intermediate	PI	M/s Lupin Limited, Pune	01. 04. 2016 to 31. 03. 2017
11	Single Crystal X-ray Analysis of Pharmaceutical compounds and their intermediate	PI	M/s Lupin Limited, Pune	01. 04. 2017
12	Synthesis of natural products / their moieties and analogs from chiral precursors derived from <i>myo</i> -inositol	Co-PI	DST, New Delhi	Ongoing
13	CSIR-Sickle Cell Mission	Member	CSIR	Ongoing
14	Mission Project: INPROTICS Agro & Pharma	Member	CSIR	Ongoing
15	CSIR-HARIT Mission	PI	CSIR	Ongoing
16	CSIR Integrated Skill Initiative	PI	CSIR	Ongoing
17	Translational Studies on Novel Solid Dosage Forms of	PI	SERB/DST	Ongoing

	APIs with Improved Physicochemical and Biopharmaceutical Performance			
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List of publications (Total publications: 210, publications in which the investigator contributed significantly are listed here).

Sr. No.	Title	Authors	Journal, year, volume, page	Impact Factor
1	Crystal-to-Crystal Synthesis of Helically Ordered Polymers of Trehalose by Topochemical Polymerization	Kuntrapakam, Hema,; Rajesh G. Gonnade; Kana M. Sureshan*	<i>Angew. Chem. Int. Ed.</i> 2020 , 59, 2897-2903	12.257
2	Ligand structure directed dimensionality reduction (2D @1D) in lead bromide perovskite	Bakthavatsalam, R., Haris, M. P. U., Shaikh, S. R., Lohar, A., Mohanty, A., Moghe, D., Sharma, S., Biswas, C., Raavi, S. S. R., Gonnade, R. G., Kundu, J.*	<i>J. Phys. Chem. C</i> , 2020 , 124, 1888-1897	4.309
3	Experimental and theoretical charge density, intermolecular interactions and electrostatic properties of metronidazole	Kalaiarasi, C., George, C. Gonnade, R. G., Hathwar, V. R. Poomani, K.*	<i>Acta. Cryst.</i> 2019 , B75, 942-953	6.732
4	Efficient Broad-Band Emission from Contorted Purely Corner-Shared One Dimensional (1D) Organic Lead Halide Perovskite	Biswas, A.; Bakthavatsalam, R.; Shaikh, S. R.; Shinde, A.; Lohar, A.; Jena, S.; Gonnade, R. G.; Kundu, J.*	<i>Chemistry of Materials</i> , 2019 , 31, 2253-2257	10.159
5	Crystal Engineering for Intramolecular π - π Stacking: Effect of Sequential Substitution of F on Molecular Geometry in Conformationally Flexible Sulfonamides	Samir R. Shaikh, Rupesh L. Gawade, Deepak Kumar, Amol Kotmale, Rajesh G. Gonnade,* and Tobias Stürzer	<i>Cryst. Growth & Des</i> , 2019 , 19, 5665-5678	4.891

6	Three-Dimensional Metal-Organic Polymer of Multivalent Hexaphenylbenzene	Madhu, S.; Gonnade, R. G.; Sanjayan, G. J.*	<i>ChemistrySelect</i> , 2019 , 3, 13712-13715	1.700
7	Effect of Crystal Packing on the Thermosolient Effect of the Pincer-Type Diester Naphthalene-2,3-diyl-bis(4-fluorobenzoate): A New Class II Thermosolient Solid	Tamboli, M. I.; Karothu, D. P.; Shashidhar, M. S.; Gonnade, R. G.*; Naumov, P.*	<i>Chem. Eur. J.</i> , 2018 , 24, 4133-4139	5.731
8	Twelve-Armed Hexaphenylbenzene-Based Giant Supramolecular Framework for Entrapping Guest Molecules	Madhu, Suresh; Gonnade, R. G.*; Das, Tamal; Vanka, Kumar; Sanjayan, G. J.*	<i>ChemPlusChem</i> , 2018 , 83, 1032-1037	3.350
9	Clues from Crystal Structures Pave the Way to Access Chiral myo-Inositol Derived Versatile Synthons: Resolution of Racemic 4-O-Allyl-myo-Inositol-1,3,5-Orthoesters via Corresponding Dicamphanates by Crystallization	Patil, N. T.; Shashidhar, M. S.*; Tamboli, M. I.; Gonnade, R. G.*	<i>Cryst. Growth & Des</i> , 2017 , 17, 5432-5440	4.891
10	Polymorphs and Cocrystals: A Comparative Analysis (Review Article)	Gonnade, R. G.* and Sangtani, E.	<i>Journal of the Indian Institute of Science</i> , 2017 , 97(2), 193-226.	0.493
11	Salts and Cocrystals of Furosemide with Pyridines: Differences in π -Stacking and Color Polymorphism	Sangtani, E.; Mandal, S. K.; Sreelakshmi, A. S.; Munshi, P. and Gonnade, R. G.*	<i>Cryst. Growth & Des</i> , 2017 , 17, 3071–3087	4.891
12	Engineering molecular topology: A pseudopeptidic macrocyclic figure-eight motif	Sharma, S.; Thorat, S. H.; Gonnade, R. G.; Jasinski, J.; Butcher, R.; Haridas, V.*	<i>Eur. J. Org. Chem.</i> 2017 , 7, 1120-1124	3.068
13	Triazine-Based Highly Stable AADD-Type Self-Complementary Quadruple Hydrogen-Bonded Systems Devoid of Prototropy	Kheria, S.; Rayavarapu, S.; Kotmale, A. S.; Gonnade, R. G. and Sanjayan, G.J.*	<i>Chem. Eur. J.</i> 2017 , 23, 783-787	5.731

14	A General Nickel-Catalyzed Method for C-H Bond Alkynylation of Heteroarenes Through Chelation Assistance	Khake, S. M.; Soni, V.; Gonnade, R. G.; Punji, B.*	<i>Chem. Eur. J.</i> 2017 , 23, 2907-2914	5.731
15	An Ultrahydrophobic Fluorous Metal-Organic Framework Derived Recyclable Composite as a Promising Platform to Tackle Marine Oil Spills	Mukherjee, S.; Kansara, A. M.; Saha, D.; Gonnade, R. G.; Mullangi, D.; Manna, B.; Desai, A. V.; Thorat, S. H.; Singh, P. S.; Mukherjee, A.; Ghosh, S.*, et al	<i>Chem. Eur. J.</i> 2017 , 22, 10937-10943	5.731
16	Structural Insights into the Hydrogen-Bonding and Folding Pattern in Ant-Ant-Pro-Gly Tetrapeptides	Baravkar, S. B.; Kotmale, A. S.; Shaikh, S. R.; Gonnade, R. G.; Sanjayan, G. J.	<i>E. J. Org. Chem.</i> 2017 , 2017, 20, 2944-2949	2.834
17	Application of Roof-Shape Amines as Chiral Solvating Agents for Discrimination of Optically Active Acids by NMR Spectroscopy: Study of Match-Mismatch Effect and Crystal Structure of the Diastereomeric Salts	Gupta, R.; Gonnade, R. G.; Bedekar, A. V.*	<i>J. Org. Chem.</i> 2016 , 81, 7384-7392	4.721
18	Naphthoquinone based chemosensor 2-(2'-aminoethylpyridine)-3-chloro-1,4-naphthoquinone: Detection of metal ions, X-ray -crystal structures and DFT studies	Patil, A.; Ware, A. P.; Bhand, S.; Chakrovarty, D.; Gonnade, R. G.; Pingale, S. S.; Salunke-Gawali, S.*	<i>J. Mol. Str.</i> 2016 , 1114, 132-143	1.780
19	Engineering crystals that facilitate the acyl-transfer reaction: insight from a comparison of the crystal structures of myo-inositol-1,3,5-orthoformate-derived benzoates and carbonates	Tamboli, M. I.; Krishanaswamy, S.; Gonnade, R. G.*, Shashidhar, M. S.	<i>Acta Cryst</i> 2016 , C72, 875-881	4.099
20	The impact of modular substitution on crystal packing: the tale of two ureas	Koshti, V. S.; Thorat, S. H.; Gote, R. P.; Chikkali, S. H.* and Gonnade, R. G.*	<i>CrystEngComm</i> 2016 , 18, 7078-7094	4.034

21	Additive Mediated Syn-Anti Conformational Tuning at Nucleation to Capture Elusive Polymorphs: Remarkable Role of Extended π -Stacking Interactions in Driving the Self-Assembly	Gawade, R. L.; Chakravarty, D. K.; Kotmale, A. M.; Sangtani, E.; Joshi, P. V.; Ahmed, A.; Mane, M. V.; Das, S.; Vanka, K.; Rajamohanan, P. R.; Puranik, V. G. and Gonnade, R. G.*	<i>Cryst. Growth & Des</i> , 2016 , 16, 2416-2428	4.891
22	Experimental and computational analysis of supramolecular motifs involving Csp ² (aromatic)-F and CF ₃ groups in organic solids	Panini, P.; Gonnade, R. G. and Chopra, D.*	<i>New. J. Chem.</i> 2016 , 40, 6, 4981-5001	3.086
23	Furosemide Cocrystals with Pyridines: An Interesting Case of Colour Cocrystal Polymorphism	Sangtani, E.; Sahu, S. K.; Thorat, S.; Gawade, R.; Jha, K.; Munshi, P.; Gonnade, R. G.*	<i>Cryst. Growth & Des</i> , 2015 , 15, 5858-5872.	4.891
24	Highly Emissive Organic Solids with Remarkably Broad Color Tunability Based on N, C-Chelate Four-Coordinate Organoborons	Shaikh, A. C.; Ranade, D. S.; Thorat, S. H.; Maity, A.; Kulkarni, P. P.; Gonnade, R. G. Munshi, P.; Patil, N. T.*	<i>Chem. Commun.</i> 2015 , 51, 16115—16118.	6.834
25	Drug–Drug Molecular Salt Hydrate of an Anticancer Drug Gefitinib and a Loop Diuretic Drug Furosemide: An Alternative for Multidrug Treatment	Thorat, S. H.; Sahu, S. K.; Patwadkar, M. V.; Badiger, M. V.; Gonnade, R. G.*	<i>J. Pharm. Sci.</i> , 2015 , DOI 10.1002/jps.24651	2.9
26	Crystal structures of the pyrazinamide- <i>p</i> -amino-benzoic acid (1/1) cocrystal and the transamidation reaction product 4-(pyrazine-2-carboxamido)-benzoic acid in the molten state	Thorat, S. H.; Sahu, S. K.; Gonnade, R. G.*	<i>Acta Cryst</i> 2015 , C71, 1010-1016	0.5
27	Intramolecular cyclization of carbonate and thiocarbonate derivatives of <i>myo</i> -inositol in the solid state: Implications for acyl group transfer reactions in molecular crystals	Tamboli, M. I.; Shashidhar, M. S.*; Gonnade, R. G.* ; Krishnaswamy, S.	<i>Chem. Eur. J.</i> 2015 , 21, 13676–13682.	5.731

28	Preferential Enrichment of -Leucine Using Cocrystal Formation With Oxalic Acid Under Nonequilibrium Crystallization Conditions	Manoj, K.; Takahashi, H.; Morita, Y.; Gonnade, R. G. ; Iwama, S.; Tsue, H.; Tamura, R.*	<i>Chirality</i> , 2015 , 27, 405-410	1.886
29	Cocrystallization of 2,3-Dihydroxynaphthalene with Its para-, meta-, and ortho-Ditoluates: Insight into Cocrystal Formation and Clues for the Construction of Supramolecular Assemblies Capable of Intermolecular Acyl Group Transfer Reactivity	Tamboli, M. I.; Bahadur, V.; Gonnade, R. G.* ; Shashidhar, M. S.*	<i>Cryst. Growth & Des.</i> , 2015 , 15, 3, 1226-1232.	4.891
30	Reversal of H-bonding direction by N-sulfonation in a synthetic reverse-turn peptide motif	Vijayadas, K. N.; Kotmale, A. S.; Thorat, S. H.; Gonnade, R. G. ; Nair, R. V.; Rajamohan, P. R.; Sanjayan, G. J.*	<i>Org. Bio. Chem.</i> , 2015 , 13, 10, 3064-3069	3.562
31	Pd-catalyzed benzylic C-H oxidation of cyclotriveratrylene - product diversity	Senthilkumar, B.; Gonnade, R. G. ; Ramana, C. V.*	<i>Org. Bio. Chem.</i> , 2015 , 13, 8, 2323-2329	3.562
32	Catalyst-Dependent Selectivity in the Relay Catalytic Branching Cascade	Bansode, A. H.; Shaikh, A. C. A.; Kavthe, R. D.; Thorat, S. H.; Gonnade, R. G. ; Patil, N. T.*	<i>Chem. Eur. J.</i> 2015 , 21, 6, 2319-2323	5.731
33	Crystal-to-Crystal Thermal Phase Transformation of Polymorphs of Isomeric 2,3-Naphthalene Diol Ditoluates: Mechanism and Implications for Molecular Crystal Formation and Melting	Tamboli, M. I.; Krishnaswamy, S.; Gonnade, R. G.* ; Shashidhar, M. S.*	<i>Cryst. Growth & Des.</i> , 2014 , 14, 10, 4985-4996	4.981
34	Correlation of the solid-state reactivities of racemic 2,4(6)-di-O-benzoyl-myo-inositol 1,3,5-orthoformate and its 4,4'-bipyridine cocrystal with their crystal structures	Tamboli, M. I.; Bahadur, V.; Gonnade, R. G.* ; Shashidhar, M. S.	<i>Acta Crystallogr. Sect. C</i> , 2014 , 70, 11, 1040-1045.	0.518

35	N-Heterocyclic carbene-catalyzed enantioselective synthesis of functionalized cyclopentenes via α,β -unsaturated acyl azoliums	Mondal, S.; Yetra, S. R.; Patra, A.; Kunte, S. S.; Gonnade, R. G. ; Biju, A. T.*	<i>Chem. Commun.</i> 2014 , 50, 93, 14539-14542	6.834
36	Multicomponent reactions involving phosphines, arynes and aldehydes	Bhunias, A.; Kaicharla, T.; Porwal, D.; Gonnade, R. G. ; Biju, A. T.*	<i>Chem. Commun.</i> 2014 , 50, 77, 11389-11392	6.834
37	Rapid access to benzoxaphospholes and their spiro analogues by a three-component coupling involving arynes, phosphines, and activated ketones	Bhunias, A.; Gonnade, R. G. ; Biju, A. T.*	<i>Org. Lett.</i> 2014 , 16, 19, 5132-5135	6.364
38	Capturing a novel metastable polymorph of the anticancer drug gefitinib	Thorat, S. H.; Patwadkar, M. V.; Gonnade, R. G.* ; Vaidhyathan, R.	<i>CrystEngComm</i> , 2014 , 16, 37, 8638-8641.	4.034
39	Highly Efficient Chiral Resolution of DL-Arginine by Cocrystal Formation Followed by Recrystallization under Preferential-Enrichment Conditions	Iwama, S.; Kazunori, K.; Mori, Y.; Manoj, K.; Morita, Y.; Gonnade, R. G. ; Suzuki, K.; Hughes, C. E.; Andrew, W. P.; Harris, K. D. M.; Veessler, S.; Takahashi, H.; Tsue, H.; Tamura, R.*	<i>Chem. Eur. J.</i> 2014 , 20, 33, 10343-10350.	5.731
40	Diels-Alder Reaction of Tropones with Arynes: Synthesis of Functionalized Benzobicyclo[3.2.2]nonatrienes	Thangaraj, M.; Bhojgude, S. S.; Bisht, R. H.; Gonnade, R. G. ; Biju, A. T.*	<i>J. Org. Chem.</i> 2014 , 79, 10, 4757-4762.	4.721
41	Efficient Synthesis of 9-Aryldihydrophenanthrenes by a Cascade Reaction Involving Arynes and Styrenes	Bhojgude, S. S.; Bhunias, A.; Gonnade, R. G. ; Biju, A. T.*	<i>Org. Lett.</i> 2014 , 16, 3, 676-679	6.364
42	Design and development of POCN-pincer palladium catalysts for C-H bond arylation of azoles with aryl iodides	Khake, S. M.; Soni, S. V.; Gonnade, R. G. ; Punji, B.*	<i>Dalton Trans.</i> , 2014 , 43, 42, 16084-16096	4.197

43	A synthetic zipper peptide motif orchestrated via co-operative interplay of hydrogen bonding, aromatic stacking, and backbone chirality.	Nair, R. V.; Kheria, S.; Rayavarapu, S.; Kotmale, A. S.; Jagadeesh, B.; Gonnade, R. G. ; Puranik, V. G.; Rajamohanan, P. R.; Sanjayan, G. J.*	<i>J. Am. Chem. Soc.</i> 2013 , <i>135</i> , 11477-80	12.113
44	Identification of Molecular Crystals Capable of Undergoing an Acyl-Transfer Reaction Based on Intermolecular Interactions in the Crystal Lattice.	Tamboli, M. I.; Krishnaswamy, S.; Gonnade R. G. ; Shashidhar, M. S.*	<i>Chem. Eur. J.</i> 2013 , <i>19</i> , 12867-12874.	5.731
45	Evaluation of viability of halogen...O ₂ N interactions: Insight from crystal packing in a series of isomeric halo and nitro substituted triaryl compounds with modular positioning of halogen and NO ₂ groups.	Ramana, C. V.*; Goriya, Y.; Durugkar, K. A.; Chatterjee, S.; Krishnaswamy, S.; Gonnade R. G.*	<i>CrystEngComm</i> , 2013 , <i>15</i> , 5283-5300.	4.034
46	Weak becomes strong: remarkable strength of C-H... π hydrogen bond in the presence of O-H...O hydrogen bonds in the crystal stabilization.	Sureshan, K. M.*; Gonnade, R. G.	<i>CrystEngComm</i> , 2013 , <i>15</i> , 1676-1679.	4.034
47	Topochemical Click Reaction: Spontaneous Self-Stitching of a Monosaccharide to Linear Oligomers through Lattice-Controlled Azide-Alkyne Cycloaddition	Pathigoolla, A.; Gonnade, R. G. ; Sureshan, K. M.*	<i>Angew. Chem. Int. Ed.</i> , 2012 , <i>51</i> , 4362-4366.	11.261
48	Multifaceted folding in a foldamer featuring highly cooperative folds.	Ramesh, V. V. E.; Priya, G.; Kotmale, A. S.; Gonnade, R. G. ; Rajamohanan, P. R.; Sanjayan, G. J.*	<i>Chem. Commun.</i> 2012 , <i>48</i> , 11205-11207.	6.834
49	Occurrence of spontaneous resolution of ketoprofen with a racemic crystal structure by simple crystallization under nonequilibrium 'preferential enrichment' conditions.	Gonnade, R. G. ; Iwama, S.; Sugiwake, R.; Kochunnonny, M. Takahashi, H.; Tsue, H.; Tamura, R.*	<i>Chem. Commun.</i> 2012 , <i>48</i> , 2791-2793.	6.834

50	Strength from weakness: opportunistic CH $\cdots$ O hydrogen bonds differentially dictate the conformational fate in solid and solution states.	Vibhute, A. M.; Gonnade, R. G. ; Swathi, R. S.; Sureshan, K. M.*	<i>Chem. Commun.</i> 2012 , 48, 717-719.	6.834
51	Synthesis of the Aminocyclitol Units of (-)-Hygromycin A and Methoxyhygromycin from <i>myo</i> -Inositol.	Gurale, B. P.; Shashidhar, M. S.*; Gonnade, R. G.	<i>J. Org. Chem.</i> 2012 , 77, 5801-5807	4.721
52	Solvent induced crystallization of 1,2,3,4(6),5-penta-O-acetyl-6(4)-O-[(1S)-10-camphor sulfonyl]- <i>myo</i> -inositol diastereomers associated via weak trifurcated C-H $\cdots$ O interactions.	Manoj, K.; Gonnade, R. G. ; Shashidhar, M. S.*; Bhadbhade, M. M.*	<i>CrystEngComm</i> , 2012 , 14, 1716-1722.	4.034
53	Strength from weakness: The role of CH $\cdots$ N hydrogen bond in the formation of wave-like topology in crystals of azaheterocycles.	Shivakumar, K., Vidyasagar, A., Naidu, A., Gonnade, R. G. , Sureshan, K. M.*	<i>CrystEngComm</i> 2012 , 14, 519-524.	4.034
54	Chiral crystals from an achiral molecule: 4,6-di-O-benzyl-1,3-O-benzylidene-2-O-(4-methoxybenzyl)- <i>myo</i> -5-inosose.	Gurale, B. P.; Shashidhar, M. S.; Gonnade, R. G. *	<i>Acta. Cryst.</i> 2012 , C68, o183- o187.	0.518
55	Halogen bonding in 2,5-Dichloro-1,4-benzoquinone: insights from experimental and theoretical charge density analysis.	Hathwar, V. R.; Gonnade, R. G. ; Munshi, P.; Bhadbhade, M. M.; Guru Row, T. N.*	<i>Cryst. Growth & Des.</i> 2011 , 11, 1855-1862.	4.891
56	Observation of efficient 'preferential enrichment' phenomenon for a cocrystal of (DL)-phenylalanine and fumaric acid under nonequilibrium crystallization conditions.	Gonnade, R. G. ; Iwama, S.; Mori, Y.; Takahashi, H.; Tsue, H.; Tamura, R. *	<i>Cryst. Growth & Des.</i> 2011 , 11, 607-615.	4.891
57	Concurrent display of both α - and β -turns in a model peptide.	Srinivas, D., Vijayadas, K. N.; Gonnade, R. , Phalgune, U. D.; Rajamohanan, P. R.; Sanjayan, G. J.*	<i>Org. Bio. Chem.</i> 2011 , 9, 5762-5765.	3.562

58	Control of polymorphic transition inducing preferential enrichment.	Tamura, R.*; Iwama, S., Gonnade, R. G.	<i>CrystEngComm</i> 2011 , 13, 5269-5280.	4.034
59	Antioxidant and anticancer activities of supramolecularly controlled magnetostructural halo-oximes of lawsone.	Zaware, S. B.; Gonnade, R. G. ; Srinivas, D.; Khan, A.; Rane, S. Y.*	<i>New J. Chem.</i> 2011 , 35, 1615-1623.	3.086
60	Azide derivatized anticancer agents of Vitamin K3: X-ray structural, DSC, resonance spectral and API studies.	Badave, K.; Patil, Y.; Gonnade, R. G. ; Srinivas, D.; Dasgupta, R.; Khan, A.; Rane, S. Y. J.*	<i>J. Mol. Struct.</i> 2011 , 1006, 288-296.	1.585
61	Ferrocene-Bis(thymine/uracil) Conjugates: Base Pairing Directed, Spacer Dependent Self-Assembly and Supramolecular Packing.	Patwa, A. N.; Gonnade, R. G. ; Kumar, V. A., Bhadbhade M. M, Ganesh K. N.*	<i>J. Org. Chem.</i> , 2010 , 75, 8705-8708.	4.721
62	Helical self-assembly of molecules in pseudopolymorphs of racemic 2,6-di-O-(4-halobenzoyl)- <i>myo</i> -inositol 1,3,5-orthoformates: clues for the construction of molecular assemblies for intermolecular acyl transfer reaction.	Krishnaswamy, S.; Gonnade, R. G. ; Bhadbhade M. M.*, Shashidhar, M. S.*	<i>CrystEngComm</i> , 2010 , 12, 4184-4197.	4.034
63	Crystal-to-crystal thermal phase transition amongst dimorphs of hexa-O- <i>p</i> -toluoyl- <i>myo</i> -inositol conserving two-dimensional isostructurality.	Gonnade, R. G. ; Bhadbhade, M. M.*; Shashidhar, M. S.*	<i>CrystEngComm</i> , 2010 , 12, 478-484.	4.034
64	Conformationally rigid aromatic amino acids as potential building blocks for abiotic foldamers.	Ramesh, V. V. E.; Roy, A.; Vijayadas, K. A.; Kendhale, A. M.; Prabhakaran, P.; Gonnade, R. ; Puranik, V. G.; Sanjayan, G. J.*	<i>Org. Bio. Chem.</i> , 2010 , 9, 367-369.	3.562
65	Crystal structure, NMR and theoretical investigations on 2-(<i>o</i> -hydroxy-anilino)-1,4-naphthoquinone.	Feizi, N.; Pinjari, R.V.; Gejji, S. P.; Sayyed, F. B.; Gonnade, R. G. ; Rane, S. Y. *	<i>J. Mol. Struct.</i> , 2010 , 966, 144-151.	1.585

66	Enhancing intermolecular benzoyl transfer reactivity in crystal by growing a 'reactive' metastable polymorph using a chiral additive.	Murali, C.; Shashidhar, M. S.*; Gonnade, R. G. ; Bhadbhade, M. M.*	<i>Chem. Eur. J.</i> 2009 , 15, 261-269.	5.731
67	Pd(II)-mediated alkynediol spiroketalization: first total synthesis of (-)-cephalosporolide E and (+)-cephalosporolide F.	Ramana, C. V.*; Suryawanshi, S. B.; Gonnade, R. G.	<i>J. Org. Chem.</i> 2009 , 74, 2842-2845.	4.721
68	Isostructural molecular strings linked via conserved dipolar (ether) O...C=O short contacts in conformational polymorphs of racemic 2,4-di-O-acetyl-6-O-tosyl- <i>myo</i> -inositol 1,3,5-orthoesters.	Manoj, K.; Gonnade, R. G. ; Bhadbhade, M. M.*; Shashidhar, M. S.*	<i>CrystEngComm</i> , 2009 , 11, 1022-1029.	4.034
69	A Cu(I)-promoted one-pot 'SNAr-click reaction' of fluoronitrobenzenes.	Durugkar, K. A.; Gonnade, R. G. ; Ramana, C. V.*	<i>Tetrahedron</i> , 2009 , 65, 3974-3979.	2.675
70	"Click" synthesis of isomeric compounds for assessing the efficiency of bifurcated Br...NO ₂ synthon.	Ramana, C.V.*; Chatterjee, S.; Durugkar, K. A.; Gonnade, R. G.*	<i>CrystEngComm</i> , 2009 , 11, 143-150.	4.034
71	The influence of electronic factors on Pd-mediated cycloisomerization: a systematic investigation of competitive 6-exo-dig versus 7-endo-dig cyclizations of sugar alkynols.	Ramana, C. V.*; Induvadana, B.; Srinivas, B.; Yadagiri, K.; Deskmukh, M. N.; Gonnade, R. G.	<i>Tetrahedron</i> , 2009 , 65, 9819-9832.	2.675
72	Magnetic phase transition in valence tautomers as polymorphs of 3-iodolawsone: Single crystal X-ray structure, DSC and EPR studies.	Zaware, S. B.; Dagade-Waghmode, S.; Gonnade, R. G. ; Srinivas, D.; Rane, S. Y.*	<i>J. Mol. Struct.</i> , 2009 , 938, 328-335.	1.585
73	Dipolar S=O ...C=O and C-H ... O interactions in the molecular organization of 4,6-di-O-acetyl-2-O-tosyl- <i>myo</i> -inositol 1,3,5-orthoesters.	Manoj, K.; Gonnade, R. G. ; Bhadbhade, M. M.*; Shashidhar, M. S.*	<i>Acta Cryst.</i> 2009 , C65, o335-o338.	0.518

74	Two modes of O-H...O hydrogen bonding utilized in dimorphs of racemic 6-O-acryloyl-2-O-benzoyl- <i>myo</i> -inositol 1,3,5-orthoformate.	Krishnaswamy, S.; Gonnade, R. G. ; Bhadbhade, M. M.*; Shashidhar, M. S.*	<i>Acta. Cryst.</i> 2009 , C65, o54-o57.	0.518
75	Foldamers with unusual structural architecture from spirobi(indane) building blocks.	Kendhale, A. M.; Gonnade, R. G. ; Rajamohanan, P. R.; Hofmann, H.-J.; Sanjayan, G. J.*	<i>Chem. Commun.</i> , 2008 , 2541-2543.	6.834
76	An expeditious one-step entry to the tetracyclic core of integrastatins	Ramana, C. V.*; Nageswara Reddy, C.; Gonnade, R. G.	<i>Chem. Commun.</i> , 2008 , 3151-3153.	6.834
77	Sheet-forming abiotic hetero foldamers.	Baruah, P. K.; Sreedevi, N. K.; Majumdar, B.; Pasricha, R.; Poddar, P.; Gonnade, R. ; Ravindranathan, S.; Sanjayan, G. J.*	<i>Chem. Commun.</i> 2008 , 712-714.	6.834
78	Ferrocene-linked thymine/uracil conjugates: Base pairing directed self-assembly and supramolecular packing	Patwa, A.N.; Gupta, S.; Gonnade, R.G.; Kumar, V.A.; Bhadbhade, M.M.; Ganesh, K.N.*	<i>J. Org. Chem.</i> 2008 , 73, 1508-1515.	4.721
79	The influence of electronic factors on palladium-mediated cycloisomerization: a systematic investigation of competitive 5-exo-dig versus 6-endo-dig cyclizations of sugar alkynols.	Ramana, C.V.*; Mallik, R.; Gonnade, R.G.	<i>Tetrahedron</i> , 2008 , 64, 219-233.	2.675
80	Crystal-to-crystal phase transformation that achieves halogen bonding: structures of dimorphs of racemic 2,4-di-O- (<i>p</i> -halo benzoyl)- <i>myo</i> -inositol 1,3,5-orthoformates.	Gonnade, R. G. ; Bhadbhade; M. M.*; Shashidhar, M. S.*	<i>CrystEngComm</i> , 2008 , 10, 288-296.	4.034
81	A rigid bicyclo[3.3.0]octane (octahydropentalene): a heavily constrained novel aliphatic template for molecular self-assembly.	Kendhale, A. M.; Gonnade, R. G. ; Rajamohanan, P. R.; Sanjayan, G. J.*	<i>Tetrahedron Lett.</i> , 2008 , 49, 3056-3059.	2.286

82	Molecular association <i>via</i> halogen bonding and other weak interactions in the crystal structures of 11-bromo-12-oxo-5 β -cholan derivatives.	Salunke, D. B.; Hazra, B. G.*; Gonnade, R. G. ; Pore, V. S.; Bhadbhade, M. M.*	<i>J. Mol. Struct.</i> 2008 , 892, 246-253.	1.585
83	Vitamin K3 family members - Part II: Single crystal X-ray structures, temperature-induced packing polymorphism, magneto-structural correlations and probable anti-oncogenic candidature.	Rane, S. Y.*; Ahmed, K.; Salunke-Gawali, S.; Zaware, S. B.; Srinivas, D.; Gonnade, R. ; Bhadbhade, M.	<i>J. Mol. Struct.</i> , 2008 , 892, 74-83.	1.585
84	Conformationally constrained aliphatic-aromatic amino-acid-conjugated hybrid foldamers with periodic β -turn motifs.	Srinivas, D.; Gonnade, R. ; Ravindranathan, S.; Sanjayan, G. J.*	<i>J. Org. Chem.</i> 2007 , 72, 7022-7025.	4.721
85	Enforcing periodic secondary structures in hybrid peptides: A novel hybrid foldamer containing periodic γ -turn motifs.	Baruah, P. K.; Sreedevi, N. K.; Gonnade, R. G. ; Ravindranathan, S.; Damodaran, K.; Hofmann, H. -J.; Sanjayan, G. J.*	<i>J. Org. Chem.</i> , 2007 , 72, 636-639.	4.721
86	BINOL-based foldamers - Access to oligomers with diverse structural architectures.	Baruah, P. K.; Gonnade, R. G. ; Ravindranathan, S.; Hofmann, H. -J.; Sanjayan, G. J.*	<i>J. Org. Chem.</i> , 2007 , 72, 5077-5084.	4.721
87	Investigating organization of molecules that facilitates intermolecular acyl transfer in crystals: reactivity and X-ray structures of O-benzoyl- <i>myo</i> -inositol 1,3,5-orthoesters.	Murali, C.; Shashidhar, M. S.*; Gonnade, R. G. ; Bhadbhade, M. M.*	<i>Eur. J. Org. Chem.</i> 2007 , 1153-1159.	3.065
88	Stereoselective syntheses of 20- <i>epi</i> cholanolic acid derivatives from 16-dehydropregnenolone acetate.	Shingate, B. B.; Hazra, B. G.*; Pore, V. S.; Gonnade, R. G. ; Bhadbhade, M. M.	<i>Tetrahedron</i> , 2007 , 63, 5622-5635.	2.675
89	Steric control in Pd-mediated cycloisomerization of sugar alkynols: documentation of a rare allylic epimerization.	Ramana, C. V.*; Patel, P.; Gonnade, R. G.	<i>Tetrahedron Lett.</i> , 2007 , 48, 4771-4774.	2.286

90	Different interaction motifs of dipolar $S=O\cdots C=O$ contacts that associate diastereomers of 2,4(6)-di-O-benzoyl-6(4)-O-[(1S)-7,7-dimethyl-2-oxobicyclo[2.2.1]heptan-1-ylmethyl)sulfonyl]- <i>myo</i> -inositol 1,3,5-orthoacetate.	Manoj, K.; Gonnade, R. G. ; Bhadbhade, M. M.*; Shashidhar, M. S.*	<i>Acta Cryst.</i> 2007 , C63, o555-o558.	0.518
91	Subtle Crossover from $C-H\cdots O$ to $S=O\cdots C=O$ Short Contacts in the Association of Diastereomers of 2,4(6)-Di-O-benzoyl-6(4)-O-[(1S)-10-camphorsulfonyl]- <i>myo</i> -inositol 1,3,5-Orthoformate upon Formation of Pseudopolymorphs.	Manoj, K.; Gonnade, R. G. ; Bhadbhade, M. M.*; Shashidhar, M. S.*	<i>Cryst. Growth Des.</i> , 2006 , 6, 1485-1492.	4.891
92	Concomitant dimorphs of tri-O-[p-halobenzoyl]- <i>myo</i> -inositol 1, 3, 5-orthoformates with different halogen bonding contacts: first order crystal-to-crystal thermal phase transition of kinetic form to the thermodynamic form.	Gonnade, R. G. ; Bhadbhade, M. M.*; Shashidhar, M. S.*; Sanki, A. K.	<i>Chem Commun.</i> , 2005 , 5870-5872.	6.834
93	Benzoyl Transfer Reactivities of racemic 2,4-di-O-acyl- <i>myo</i> -inositol 1,3,5-orthoesters in the Solid State: Molecular Packing and Intermolecular Interactions Correlate with the Facility of the Reaction.	Sarmah, M. P.; Gonnade, R. G. ; Shashidhar, M. S.*; Bhadbhade, M. M.*	<i>Chem. Eur. J.</i> , 2005 , 11, 2103-2110.	5.731
94	Short $S=O\cdots C=O$ Contacts Associate Diastereomers of 2,4(6)-Di-O-benzoyl-6(4)-O-[(1S)-10-camphorsulfonyl]- <i>myo</i> -inositol 1,3,5-Orthoformate in Their Inclusion Complexes.	Manoj, K.; Gonnade, R. G. ; Bhadbhade, M. M.*; Shashidhar, M. S.*	<i>Cryst. Growth Des.</i> , 2005 , 5, 833-836.	4.891
95	Self-Assembly with Degenerate Prototropy.	Baruah, P. K; Gonnade, R. G. ; Phalgune, U. D.; Sanjayan, G. J.*	<i>J. Org. Chem.</i> , 2005 , 70, 6461-6467.	4.721

96	Capturing a metastable chiral polymorph of an achiral molecule: hexa-O-benzoyl-myo-inositol.	Gonnade, R. G.; Bhadbhade, M. M.*; Shashidhar, M. S.*	<i>Chem. Commun.</i> , 2004 , 2530-2531.	6.834
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