BIO-DATA

1. Name and full correspondence address : Dr. Partha Pratim Jana
Assistant Professor
Department of Chemistry
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3. Institution : Indian Institute of Technology, Kharagpur (IITKgp)
4. Date of Birth: 21.04.1983
5. Gender (M/F/T) : M
6. Category Gen/SC/ST/OBC: Gen

7. Academic Qualification (Undergraduate Onwards)

Degree	Year	Subject	University/Institution
B. Sc. (Honors)	2005	Chemistry with Physics, Mathematics (pass subjects) and English and Bengali (general subjects)	R. K. Mission Residential College, Narendrapur, University of Calcutta
M.Sc.	2007	Chemistry	IIT Guwahati
Ph.D.	2011	Solid State Chemistry	University of Marburg, Germany

8.

Ph.D thesis title	Spatially correlated structural disorder phenomena in zinc-rich alloys
Guide's Name	Prof. Bernd Harbrecht
Institute/Organization/University	University of Marburg, Germany
Year of Award	2011

9. Work experience (in chronological order).

S.No.	Positions held	Name of the Institute	From	To
1.	Post-doctoral research associate	Lund university	Sept. 2011	Feb. 2015
2.	Assistant Professor	IIT Kharagpur	March, 2015	date

10. Professional Recognition/ Award/ Prize/ Certificate, Fellowship.

S.No	Name of Award	Awarding Agency	Year
1.	**Alexander von Homboldt, University of Muenster**	Humboldt Foundation	2014 (declined)
2.	**Marie Curie Fellowship, University of Oxford**	European Commission	2015
3.	**Early Career Research Award (ECR)**	SERB, India	2016
4.	**Faculty Excellence Award (for Assistant Professor)**	IIT Kharagpur	2020

2019~present: Member of International Advisory Board of International Conference on Quasicrystals (ICQ)
2020~present: Consultant in Commission on Aperiodic Crystals of International Union of Crystallography (IUCr).
Sponsored project:
ISIRD, IIT Kharagpur:
Early Career Research Award (ECR):
Marie Curie Fellowship, University of Oxford: 07/2016-07/2017.
Collaborative research scheme under UGC-DAE Consortium for Scientific research (CRS-M-312): 01/04/2020-31/03/2021.
Core Research Grand (CRG): 2020-2022

11. No. Ph.D. and Postdoctoral fellows (from all sources) working at present with the mentor

Ph.D. fellows	**Postdoc**	**MSc thesis**
Supervisor: 1 (completed), 1(submitted), 7 (ongoing) Co-supervisor: 1	**Nil**	**10 (completed)**

12. Publications ***(List of papers published in SCI Journals, in year wise descending order)***
(*) = corresponding author

52. Spin-glass magnetism of the γ-brass type pseudo-binary $Mn_xNi_2Zn_{11-x}$
Sivaprasad Ghanta,Anustoop Das, Partha Pratim Jana*, Stanislav Vrtnik, Darja Gačnik, Jože Luzar, Andreja Jelen, Primož Koželj, Janez Dolinšek[2,3,]* (*accepted to Inorganic Chemistry*).

51. Misra; S., Pahari; D, Giri; S., and Puravankara; S. *, **Jana; P. P.** * Electrochemical Study of γ-brass type Cu – rich complex intermatallic phase $Cu_{41}Sn_{11}$ *Solid State Sciences* https://doi.org/10.1016/j.solidstatesciences.2021.106682.

50. Maxim Gillard; C.H.R.; Djohari; K., **Jana; P. P.**, Avdeev; M., Sharma; N.* The phase evolution of tetradymite-type bismuth selenide in alkali ion batteries **2021**, *300*, 122241.

49. Unusual Atomic Ordering of Ga and As in the Ternary Rh5Ga2As: First-Principles Calculations
Roy; N., Giri; S.; Harshit, **Jana; P. P.** * https://doi.org/10.1515/zkri-2021-2019.

48. Koley; B., Mallik; S., Harshit, Roy; N., **Jana; P. P.** * A vacancy driven intermetallic phase $Rh_2Cd_{3-\delta}$ **2021***, 60,* 5488.

47. Koley; B., Lakshan; A., Raghuvansi P. R. Singh; C., Bhattacharya; A.*, **Jana; P. P. *** Ultralow lattice thermal conductivity at room temperature in Cu_4TiSe_4 *Angew Chem.* **2021***, 60 (16),* 9106-9113.

46. Ghanta; Sivaprasad, Das; A., Kamboj; R., **Jana, P. P. *** A partly disordered $(2a)^3$ –superstructure of γ-brass related phase in Mn-Ni-Zn System *Z. Kristallogr. Cryst. Mater.* **2021,** *236,* 71**.**

45. Gillard, C.H.R.; **Jana; P. P.**, Avdeev; A. Sharma; N. *The structural evolution of tetradymite-type Sb2Te3 in alkali ion batteries *Journal of Alloys and compounds* **2021**, 871,159378.

44. Synthesis, Crystal Structure, Electronic Structure and Catalytic Properties of Ni3GaSb
Roy; N., Kumari: S., Sikdar; R., Sharma; A., Harshit, Deshpande; Parag A., Sharma; S., and **Jana; P. P.** * *European Journal of Inorganic Chemistry* **2021** (14), 1410-1418.

43. Harshit, Roy; N., **Jana; P. P.** * Atomic ordering in the structure of A_3Pd_5 (A= Al, Ga, Mg): First principles calculations *Solid State Sciences*. **2021**, *113*, 106544.

42. Misra; S., Pahari; D, Giri; S., and Puravankara; S., **Jana; P. P.** * Synthesis, crystal structures, phase width and electrochemical performances of *γ*-brass type phases in Cu-Zn-Sn system
Journal of Alloys and Compounds. **2021***, 855,* 157372.

41. Koley; B., Lakshan; A., Raghuvansi P. R. Singh; C., Bhattacharya; A.*, **Jana; P. P. *** Ultralow lattice thermal conductivity at room temperature in Cu_4TiSe_4 *Angew. Chem* http://doi.org/10.1002/ange.202014222.

40. Misra; S., Giri; S., **Jana; P. P.** * γ-brass type structures with I -and P -cell in the ternary Cu–Zn–In system *Zeitschrift für Kristallographie-Crystalline Materials***2020**, 235, 591-597.

39. Pahari; D, Misra; S., **Jana; P. P.** and Puravankara; S.* Electrochemical alloying/de-alloying mechanism of ternary intermetallic $Cu_{6-\delta}Zn_{2+\delta}Sb_2$ ($\delta = 0$ and 1) as anode for Li-ion and Na-ion batteries *Journal of Solid State Chemistry.* **2020***, 292,* 121660.

38. Koley; B., Thimmaiah; S, Lidin; S., **Jana; P. P.** * Structure and stability of γ1-$AuZn_{2.1}$– a γ-brass related complex phase in the Au-Zn System *Acta Cryst. B* , **2020**, *76*, 1109-1116.

37. Roy; N., Chakrabarty; A., Koley; B., Saha-Dasgupta; T., **Jana; P. P.** * Site preference and atomic ordering in the structure of In_3Pd_5: A first-principles calculation analysis *Journal of Solid State Chemistry.* **2020***, 290,* 121567.

36. Misra; S., Mallick, S., Koley; B., Chatterjee; S., Wang; F. and **Jana; P. P.** * Chemical substitution of Zn in the structure of ordered $Cu_6Zn_2Sb_2$: A structural and theoretical study *Solid State Sciences.* **2020***, 107,* 106333.

35. Misra; S., Koley; B., Mahato; S., Wang; F. and **Jana; P. P.** * Unusual crystallographic ordering of two neighbouring Elements-Cd and In in Cd_2Cu_3In, the first example in ternary Laves phase *Journal of Alloys and Compounds.* **2020***, 844,* 156054.

34. Ghanta; S, Kamboj; R., Mohan; N. and **Jana; P. P.** * Formation of γ-brass type pseudo-binary $Ni_2Zn_{11-4\delta}X_\delta$ ($0 \leq \delta \leq \sim 0.13$) (X = In and Ga) by an exchange mechanism *Journal of Solid State Chemistry.* **2020**, *289*, 121465.

33. Gillard, C.H.R.; **Jana; P. P.**, Rawal, A.Sharma; N.* Electrochemical phase evolution of tetradymite-type Bi_2Te_3 in lithium, sodium and ion half cells potassium *Journal of Alloys and Compounds.* **2021**, *854*, 155621.

32. Ghanta; S; Roy; N., **Jana; P. P.** * Crystal structures of two very similar 2× 2× 2 superstructures of γ-brass-related phases in ternary Ir–Cd–Cu system *Acta Cryst. B* **2020**, *76,* 47-55.

31. Koley; B., **Jana; P. P.** * Structure and Stability of Au_3M_5 (M=Mg, Cd) *Journal of Solid State Chemistry* **2019**, *274*, 215-221.

30. Sivaprasad; G., Rayaprol; S., **Jana; P. P.** * A New Descendant of the γ-Brass Family in the Zinc Rich Ni-Zn-In System *Journal of Alloys and Compounds.* **2019**, *786*, 225-231.

29. Misra; S., Koley; B., Chatterjee, S., Mallick; S. **Jana; P. P.** *
Atomic Ordering of Two Neighboring Transition Metals-Cu and Zn from Binary CuZn to Ternary Cu_3ZnSb
Inorg. Chem. **2018**, *57*, 11970-11977.

28. Asymmetric Supercapacitor Based on Chemically Coupled Hybrid Material of Fe_2O_3-Fe_3O_4 Heterostructure and Nitrogen-Doped Reduced Graphene Oxide
Mallick; S., **Jana; P. P.** and Retna Raj; C. * *ChemElectroChem.* **2018**, *5*, 2348-2356.

27. Karthikeyan; N., Jaiganesh; G., Anbarasu; V., **Jana; P. P.** and Sivakumar; K. Thermoelectric transport investigations on Cd/In substituted β-Zn_4Sb_3 compounds *Materials Today Communications.* **2018**, *14*, 128-134.

26. Karthikeyan; N., Sivaprasad; G., Jaiganesh; G., Anbarasu; V., **Jana; P. P.** and Sivakumar; K. Thermoelectric properties of Se and Zn/Cd/Sn double substituted Co_4Sb_{12} skutterudite compounds
Phys. Chem. Chem. Phys. **2017**, *19*, 28116-28126.

25. Karthikeyan; N., Sivaprasad; G., Misra; S., Jaiganesh; G., **Jana; P. P.** and Sivakumar; K. Tuned thermoelectric transport properties of $Co_{2.0}Sb_{1.6}Se_{2.4}$ and $Co_{2.0}Sb_{1.5}M_{0.1}Se_{2.4}$ (M=Zn, Sn): Compounds with high phonon scattering *Journal of Alloys and Compounds.* **2017**, *729*, 303-312.

24. Jana, P. P.* $RhCd_{9+\delta}$ ($-1.18 \leq \delta \leq 0.29$) a γ-brass related cubic giant cell structure.
Zeitschrift für Kristallographie - Crystalline Materials. **2017**, *232*, 611-617.

23. Koley**, B;** Sivaprasad, G.; Misra, S; **Jana, P. P.*** Rh_8Cd_{43}: A rhombohedral variant of a cubic giant cell structure *Journal of Alloys and Compounds.* **2017***, 695,* 3760-3766*.*

22. Koley**, B;** Chatterjee, S.; **Jana, P. P.*** Synthesis, crystal structure and electronic structure of the binary phase Rh_2Cd_5 *Journal of Solid State Chemistry* **2017,** *246*, 302-308.

21. Saha, S.; **Jana, P. P.;** Gómez-García, C. J.; Harms, K.; Nayek, H. P. * Co-crystallization of Keggin Type Polyoxometalates $[HL]_3[PW_{12}O_{40}]$ and $[Ln(DMF)_8][PW_{12}O_{40}]$ (Ln = La, Dy, Yb) (L = N-(2-hydroxyphenyl)-3-methoxysalicylideneamine): Syntheses, Structures and Magnetic Properties *Polyhedron*, **2016**, *104*, 58-62.

20. Mahato, M.; **Jana, P. P.**; Harms, K.; and Nayek, H. P.* Lanthanide (III) Morpholine 4-Dithiocarbamate Complexes: Pr(III) Derivative Shows First Example of Polymeric Lanthanide(III) Dithiocarbamate *RSC Advances*, **2015**, *5*, 62167-62172.

19. Jana, S.; **Jana, P. P.;** Chattopadhyay, S.* Variation in crystalline architectures through supramolecular interactions in copper(II) complexes with tridentate N_2O donor Schiff bases
J. Coord. Chem. **2015,** *68*, 2520–2538.

18. Pal, S.; Bhunia, A.; **Jana, P. P;** Dey, S.; Möllmer, J.; Janiak, C.; Nayek,* H. P. A Microporous La-Metal-Organic Framework with Large Surface Area *Chem. Eur. J.* **2015,** *21*, 2789-2792.

17. **Jana, P. P.*;** Lidin, S. AuCd4 -a Hume-Rothery Phase with VEC of 1.8 and Icosahedral and Trigonal- Prismatic Clusters as Basic Building Blocks. *Inorg. Chem.* **2015**, *54*, 713–721.

16. Bhattacharyya, A.; Bhaumik, P. K.; Bauzáb, A.; **Jana, Partha Pratim**; Fronterab, A.* Drewd, M. G. B.; Chattopadhyaya, S.*, A combined experimental and computational study of supramolecular assemblies in ternary copper(II) complexes with a tetradentate N_4 donor Schiff base and halides *RSC Adv*. **2014**, *4*, 58643.

15. Pal, S.**; Jana, P. P.;** Nayak, H. P.* Mononuclear complexes and a coordination polymer of the 2-pyridylamino (NH_2Py) functionalized P(V) ligand. *RSC Adv.*, **2014, *4*,** 26902-26906.

14. Bhattacharyya, A.; Bhaumik, P. K.; **Jana, P. P.**; Chattopadhyay, S.* Anion mediated diversity in the nuclearity of nickel (II) complexes with a N_2O donor Schiff base: Formation of a supra-molecular chain via Br•••Br interaction. *Polyhedron* **2014**, *78*, 40-45.

13. Jana, P. P.* $CrZn_{17+\delta}$ ($-0.75 \leq \delta \leq 2.00$): a partly disordered complex intermetallic compound. *J. Alloys Compd.* **2014**, *610*, 55-61**.**

12. Jana, P. P.*; Lidin, S. Incommensurately Modulated δ″-$Au_{1+x}Cd_{2-x}$ Formed by an Unquenchable Phase Transformation from the γ-Brass δ′-Phase. *Inorg. Chem.* **2013**, *52*, 12980-12985.

11. Jana, P. P.*; Pankova, A. A.; Lidin, S. $Au_{10}Mo_4Zn_{89}$: A Fully Ordered Complex Intermetallic Compound Analyzed by TOPOS. *Inorg. Chem.* **2013**, *52*, 11110-11117.

10. Jana, P. P.*; Henderson, R.; Harbrecht, B.; Lidin, S. Site Preference and Ordering Induced by Au Substitution in the γ-Brass Related Complex Au–Cr–Zn Phases. *Inorg. Chem.* **2013**, *52*, 4812–4818.

9. Jana, P. P.*; Lidin, S. $Pd_2Cd_{11-\delta}$ ($0.21 \leq \delta \leq 0.51$)–a partly disordered γ-brass type phase and $Pd_{0.238}Cd_{0.762}$-a γ-brass related incommensurate phase in the palladium–cadmium system. *J. Solid State Chem.* **2013**, *201*, 244-249.

8. Jana, P. P.*; Lidin, S. Structure Determination of γ-Brass-Related Composite Structures in the Ni–Zn System: A Guided Tour by a (3+1)-Dimensional Space Description. *Eur. J. Inorg. Chem.* **2013**, *2013*, 91-98.

7. Jana, P. P.*; Lidin, S. Structures of $NiCd_{6+\delta}$ ($-0.32 \leq \delta \leq 0.35$) – a γ-brass related phase, and $NiCd_{1+\delta}$ ($0 \leq \delta \leq 0.05$) – a Ti_2Ni type phase in the nickel–cadmium system. *CrystEngComm.* **2013**, *15*, 745-753.

6. Bhunia, A.; Yadav, M.; Lan, Y.*; Powell, A. K.; Menges, F.; Riehn, C.; Niedner-Schatteburg, G.; Jana, P. P.; Riedel, R.; Harms, K.; Dehnen, S.; Roesky, P.W.* Trinuclear nickel–lanthanide compounds. *Dalton Trans.* **2013**, *42*, 2445-2450.

5. Jana, Partha P.*; Lidin, S. Structural Impact of Platinum on the Incommensurably Modulated γ-Brass Related Composite Structure $Pd_{15}Zn_{54}$. *Inorg. Chem.* **2012**, *51*, 9893–9901.

4. Bhowmik, P.; Jana, S.; Jana, P. P.; Harms, K., Chattopadhyay, S.* Unique example of a T3(2)4(2)3(2)6(2) water tape containing acetate–water hybrid hexamer in a heterometallic schiff base complex host. *Inorg. Chem. Commun.* **2012**, *18*, 50-56.

3. Bhowmik, P.; Jana, S.; Jana, P. P.; Harms, K., Chattopadhyaya, S.* Anion mediated diversity in the H-bonded assembly of a series of heteronuclear copper(II)/sodium(I) compounds. *Inorg. Chim. Acta* **2012**, *390*, 53–60.

2. Jana, S.; Bhowmik, P.; Das, M.; Jana, P. P.; Harms, K.; Chattopadhyay S.* Synthesis and characterisation of two double EE azido and thiocyanato bridged dimeric Cu(II) complexes with tridentate Schiff bases as blocking ligands. *Polyhedron* **2012**, *37*, 21–26.

1. Jana, P. P.; Sarma, R.; Baruah, J. B.* Reduction of α, β-unsaturated carbonyl compounds by palladium (II) and nickel(II) complexes having nitrogen-containing ligands. *J. Mol. Catal. A: Chem.* **2008**, *289*, 57-60.

13. Reviewer of Journals

Chemistry of Materials,
Inorganic Chemistry,
Crystal Growth & Design,
Journal of Solid State Chemistry
Journal of Alloys and Compounds

13. Teaching Courses taught in IIT Kharagpur

- Solid State Chemistry (CY50033)
- Chemistry of Materials (CY60121)
- Single Crystal X-ray Structure Analysis (CY71006)

INORGANIC CHEMISTRY I(CY20105)

- Chemistry (CY11001)
- Chemistry Lab (CY19001)
- Inorganic Chemistry Laboratory I (CY29002)
- Inorganic Chemistry Laboratory II (CY39004)
- Advanced Inorganic Chemistry Laboratory (CY49001)

14. Institute/Departmental Responsibilities

1st year Laboratory In-Charge (08/2017-08/2020)

In charge Single Crystal XRD, Chemistry (08/2012-08/2020)
Chemistry Department Timetable In-charge (2017-to date)
Time Table In-Charge, Chemistry (08/2017-07/2020)
Member, DAC, Chemistry (08/2019-08/2021)
Program Officer, NSO (7/2018-1/2021)
Local Coordinator /Organizer of GYAN course (2019)
Local Coordinator of a short term course though SGRIP scheme (2020)
Review committee member, STEP, IITKgp (07/2020-07/2023)

15. Presentation at International Conferences (from IIT Kharagpur):

14th International Conference on Quasicrystals (ICQ14), 2019, Kranjska Gora, Slovenia (Oral presentation).
9th Conference on Aperiodic Crystals Ames, Iowa, Ames, US, 2018, (Invited speaker).

Twenty-Fourth Congress and General Assembly of the International Union of Crystallography
2017, Hyderabad, India (Oral Presentation).

13th International Conference on Quasicrystals (ICQ14), 2016, Kathmandu, Nepal (Invited speaker).