

Name of Teaching Staff : Dr. Ankita B Jain
Designation : Assistant Professor
Department : Basic Sciences & Humanities
Date of Joining the Institution : 04/07/2011
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Google Scholar Link : <https://scholar.google.co.in/citations?hl=en&user=yU7L0jwAAAAJ>

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Publons Researcher ID : <https://publons.com/researcher/4954162/>

Qualifications with Class / Grade : Ph.D in Physics (in BARC) awarded by Mumbai university

Total Experience in Years : 15 yrs

Papers Published in Journal: : **International Journal**

1. High pressure study of Pentaerythritol: a synchrotron infrared study, S.K. Deb, **Ankita Banerji**, R.J. Kshirsagar, S.M. Sharma, P. Dumas, T. Marin, J.C. Chervin and B. Canny; Infrared physics and technology **49** (2006) 82.
2. Raman Scattering Study of High Pressure Phase Transition in Thiourea; **Ankita Banerji** and S.K. Deb; Journal of Physical Chemistry B **111** (2007) 10915.
3. Order–disorder transition in $\text{Nd}_{2-y}\text{Gd}_y\text{Zr}_2\text{O}_7$ pyrochlore solid solution: An X-ray diffraction and Raman spectroscopic study; B.P. Mandal, **Ankita Banerji**, Vasant Sathe, S.K. Deb and A.K. Tyagi Journal of solid state chemistry **180** (2007) 2643.
4. Raman, XRD and SEM investigations on $\text{CeO}_2\text{-Lu}_2\text{O}_3$ and $\text{CeO}_2\text{-Sc}_2\text{O}_3$ systems: A Sub-Solidus Phase evolution study V. Grover, **Ankita Banerji**, P. Sengupta and A.K. Tyagi Journal of solid state chemistry **181** (2008) 1930.
5. $\text{CeO}_2\text{-Gd}_2\text{O}_3$ system: Unravelling of microscopic features by Raman spectroscopy;

Ankita Banerji, Vinita Grover, Vasant Sathe, A. K. Tyagi and S.K. Deb
Solid state communications **149** (2009) 1689.

6. Pressure induced structural stability studies on Nd₂Zr₂O₇ pyrochlore
Ankita Banerji, B.P. Mandal, T.N. Sairam and A.K. Tyagi Solid state
communications **151** (2011) 321.

7. Advances in Nano medicine
Namrata Manglani, **Ankita Banerji Jain** Journal of Emerging Technologies
and Innovative Research May (2020), Volume 7, Issue 5

8. Order-disorder transition in pentaerythritol using Raman scattering
Ankita Banerji Jain, S. K. Deb Solid state Communications 318 (2020)
113964.

9. High Pressure Raman spectroscopic study of Phase transformations in
Zn(CN)₂
Ankita Banerji Jain, S.K. Deb, A.K. Tyagi Chemical Physics Letters 758
(2020) 137947

10. Visibility graph approach to characterize planetary transit signatures: A
case study on OGLE IV data
Ankita B Jain, Moses Kartha, Yash Prajapati New Astronomy 126 (2026)
102548.

- Papers Presented in Conferences :
1. Raman scattering study of Ce_{0.775}Nd_{0.225}O_{2-y} at high pressure; **Ankita Banerji**, S.K. Deb, S. V. Chavan and A.K. Tyagi, Proceedings of the DAE Solid State Physics Symposium (2005), Vol. **50**, pp. 121-122.
 2. Raman scattering and Infrared absorption studies of Nd₂Zr₂O₇; **Ankita Banerji**, T. N. Sairam, C. S. Sunder and S. K. Deb, Proceedings of the DAE Solid State Physics Symposium (2006), Vol. **51**, pp. 149-150.
 3. Raman scattering study of Ba_{0.7}Hf_{0.3}TiO₃ at high pressure; Meenakshi Kumari, **Ankita Banerji**, A.K. Tyagi and S.K. Deb, Proceedings of the DAE Solid State Physics Symposium (2006), Vol. **51**, pp. 167-168.
 4. XRD and Raman spectroscopy studies in Gd_{2-x}Nd_xZr₂O₇. B. P. Mandal, **Ankita Banerji**, S. K. Deb and A. K. Tyagi. Proceedings of the DAE Solid State Physics Symposium (2006), Vol. **51**, pp. 113-114.
 5. Raman Scattering and X-ray Diffraction Study of CeO₂-Gd₂O₃ Solid Solution; **Ankita Banerji**, Vinita Grover, Vasant sathe, A. K. Tyagi and S.K. Deb. Proceedings of DAE-BRNS International Symposium on Materials Chemistry (2006), pp. 269-271.
 6. High pressure study of Pentaerythritol : a synchrotron infrared study. S.K. **Deb**, **Ankita Banerji**, R.J. Kshirsagar, S.M. Sharma, P. Dumas, T. Marin, J.C. Chervin and B. Canny. Proceedings of the DAE Solid State Physics Symposium (2003), Vol. **46**, pp. 7-8.
 7. Raman scattering study of high-pressure phase transition in Thiourea; **Ankita Banerji** and S.K. Deb. Proceedings of the DAE Solid State Physics Symposium (2004), Vol. **49**, pp. 121-122.

8. Raman Scattering Study of Order-Disorder Transition in Pentaerythritol; **Ankita Banerji**, T. Sakuntala and S.K. Deb. Proceedings of the DAE Solid State Physics Symposium (2004), Vol. **49**, pp. 145-146.
9. Raman Scattering Study of Nanocrystalline $Ce_{1-x}Nd_xO_{2-y}$ at high pressure; **Ankita Banerji**, Vinila Bedekar, A. K. Tyagi and S. K. Deb. Advanced Nanomaterials 2007: An International Conference on Experimental Condensed Matter Physics, pp. 129-130.
10. High pressure study of Pentaerythritol : a synchrotron infrared study; S.K. Deb, **Ankita Banerji**, R.J. Kshirsagar, S.M. Sharma, P. Dumas, T. Marin, J.C. Chervin and B. Canny WIRMS 2005 International workshop on Infrared microscopy and spectroscopy with accelerator based sources., Oral presentation, presented by Ankita Banerji Abstract book page no. 72.
11. Raman scattering study of high-pressure phase transition in Thiourea; **Ankita Banerji** and S.K. Deb; presented in ICORS 2006.
12. Raman Scattering Study of Order-Disorder Transition in Pentaerythritol; **Ankita Banerji**, T. Sakuntala and S.K. Deb; presented in ICORS 2006.
13. XRD and Raman spectroscopy studies in $Gd_{2-x}Nd_xZr_2O_7$; B. P. Mandal, **Ankita Banerji**, S. K. Deb and A. K. Tyagi; presented in ICORS 2006.
14. High pressure Raman spectroscopic study of $Zn(CN)_2$; **Ankita Banerji**, A. K. Tyagi, S. K. Deb; presented in XIII AIRAPT-International Conference on High Pressure Science and Technology.
15. High pressure Raman spectroscopic study of $Zn(CN)_2$; **Ankita Banerji**, A. K. Tyagi, S. K. Deb; presented in First Asian spectroscopy conference and Asian Biospectroscopy conference ASC 2007.
16. Advances in Nano medicine; Namrata Manglani, **Ankita Banerji Jain**; presented in National Symposium on Innovative Materials and Devices; (NSIMD-2019) 24-25 June (2019)

Area of Specialization : High Pressure & Low temperature Raman & IR Spectroscopy, Phase transition studies

PhD Guide ? Give field & University : **Field:** —
University: —

PhDs / Projects Guided : **PhDs :** —
Projects at Masters level: —

Books Published / IPRs / Patents	: Books (Editors for conference Proceedings on Springer) —
Professional Memberships	: Life Member of ISTE (LM 122971)
Grants fetched	: Minor Research Grant (University of Mumbai) —
Interaction with Professional Institutions	: <p>Guest Lectures:</p> <ol style="list-style-type: none"> 1. Conducted a session on Physics for Engineers for Bhagubhai Polytechnic college during Orientation Programme 2020-21, 2021-22, 2022-23, 2023-24, 2024-25, 2025-26. 2. Invited as a subject expert in the interview selection committee for the recruitment of assistant and associate professor in PastIndia office (Plastindia University) 2022. 3. Invited as a Judge for Research Presentations & Competition for POLARIZER 2025. MPSTE (MUMBAI) <p>Other Achievements and Responsibilities:</p> <ol style="list-style-type: none"> 1) Member of Syllabus Revision Committee (Engineering Physics) Mumbai University 2019-20 2) Reviewer of Research Papers in ICNTE (International Conference on Nascent Technologies in Engineering) 2021 3) Examiner for D.Y. Patil University (Mumbai) 4) Member of Syllabus framing committee in the subject of Engineering Physics for K. J. Somaiya Institute of Engineering & Information Technology (Autonomous College)
Subjects Taught	<p><u>UG Level:</u> Engineering Physics I & II</p> <p><u>PG Level:</u> ---</p>

Projects Guided : **UG Level: --**

PG Level: --

Recommended Students for
Higher Education

Name of the University/Industry
Student

— —

Institute/Department
Responsibility handled:

- 1) BOS member for First year B. Tech Program
- 2) Member of Library committee.
- 3) Member of Library purchase committee.
- 4) Subject coordinator of Engineering Physics of D.J. Sanghvi college of Engineering.
- 5) FE Timetable coordinator for F.Y.B Tech. In addition to structuring TT for F.Y.B Tech, act as a coordinator with other department for optimum utilization of facilities.
- 6) Organized and coordinated a 2-day Faculty Development Programme on “*Active Teaching Learning Strategies Using Innovative Technology*” in DJSCE on 25th-26th Februar, 2019.
- 7) Faculty Mentor of Institute Astroclub DJS NOVA since 2022-till date

Pedagogy Development

Developed lab experimental videos streamed live on teams.
Guided first year students in live demonstrations of Mini Physics Projects...