

Anal Tarafder

Publications

Publications in International SCI Journals

2004

1. S. P. Singh, Aman and **A. Tarafder**, "Effect on alkaline earth oxide on the intensity of absorption band due to Cu^{2+} , Mn^{3+} , and Cr^{3+} in ternary silicate glasses", **Bulletin of Materials Science**, 27 (2004) 281-7.

2006

2. S. Maitra, A. Rahaman, A. Sarkar and **A. Tarafdar**, "Zirconia-mullite materials prepared from semi-colloidal route derived precursors", **Ceramics International**, 32 (2006) 201-6.

2007

3. K. Annapurna, **A. Tarafder** and K. K. Phani, "Compositional dependence of ultrasonic velocities in glasses", **Journal of Applied Physics**, 102 (2007) 083542 (1-5).

2009

4. **A. Tarafder**, K. Annapurna, R. S. Chaliha, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Processing and properties of $\text{Eu}^{3+}:\text{LiTaO}_3$ transparent glass-ceramic nanocomposites", **Journal of the American Ceramic Society**, 92 (2009) 1934-9.
5. **A. Tarafder**, K. Annapurna, R. S. Chaliha, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Nanostructuring and fluorescence properties of $\text{Eu}^{3+}:\text{LiTaO}_3$ in $\text{Li}_2\text{O}-\text{Ta}_2\text{O}_5-\text{SiO}_2-\text{Al}_2\text{O}_3$ glass-ceramics", **Journal of Materials Science**, 44 (2009) 4495-8.
6. A. D. Sontakke, **A. Tarafder**, K. Biswas and K. Annapurna, "Sensitized red luminescence from Bi^{3+} co-doped $\text{Eu}^{3+}:\text{ZnO}-\text{B}_2\text{O}_3$ glasses", **Physica B: Condensed Matter**, 404 (2009) 3525-9.
7. R. S. Chaliha, K. Annapurna, **A. Tarafder**, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Luminescence and dielectric properties of nano-structured $\text{Eu}^{3+}:\text{K}_2\text{O}-\text{Nb}_2\text{O}_5-\text{SiO}_2$ glass-ceramics", **Solid State Sciences**, 11 (2009) 1325-32.

2010

8. **A. Tarafder**, A. R. Molla and B. Karmakar, "Processing and properties of Eu^{3+} -doped transparent YAG ($\text{Y}_3\text{Al}_5\text{O}_{12}$) nano glass-ceramics", **Journal of the American Ceramic Society**, 93 (2010) 3244-51.

9. **A. Tarafder**, A. R. Molla and B. Karmakar, "Effects of nano-YAG ($Y_3Al_5O_{12}$) crystallization on the structure and photoluminescence properties of Nd^{3+} -doped $K_2O-SiO_2-Y_2O_3-Al_2O_3$ glasses", **Solid State Sciences**, 12 (2010) 1756-63.
10. **A. Tarafder**, K. Annapurna, R. S. Chaliha, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Structure, dielectric and optical properties of Nd^{3+} doped $LiTaO_3$ transparent ferroelectric glass-ceramic nanocomposites", **Journal of Alloys and Compounds**, 489 (2010) 281-8.
11. R. S. Chaliha, **A. Tarafder**, K. Annapurna and B. Karmakar, "Preparation and Properties of $BaBiBO_4-SiO_2$ Glasses", **International Journal of Applied Glass Science**, 1 (2010) 368-77.
12. R. S. Chaliha, K. Annapurna, **A. Tarafder**, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Optical and dielectric properties of isothermally crystallized nano $KNbO_3$ in Er^{3+} -doped $K_2O-Nb_2O_5-SiO_2$ glasses", **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy**, 75 (2010) 243-50.
13. R. S. Chaliha, K. Annapurna, **A. Tarafder**, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Structure, dielectric and optical properties of transparent Nd^{3+} : $KNbO_3$ nanocrystalline glass-ceramics", **Optical Materials**, 32 (2010) 1202-9.
14. S. P. Singh, K. Pal, **A. Tarafder**, M. Das, K. Annapurna and B. Karmakar, "Effects of SiO_2 and TiO_2 fillers on thermal and dielectric properties of eco-friendly bismuth glass microcomposites of plasma display panels", **Bulletin of Materials Science**, 33 (2010) 33-41.
15. S. P. Singh, K. Pal, **A. Tarafder**, T. Hazra and B. Karmakar, "Influence of SiO_2 and Al_2O_3 fillers on thermal and dielectric properties of barium zinc borate glass microcomposites for barrier rib of plasma display panels (PDPs)", **Transactions of the Indian Ceramic Society**, 69 (2010) 75-82.

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16. **A. Tarafder**, S. P. Singh and B. Karmakar, "Effects of TiO_2-SiO_2 fillers on thermal and dielectric properties of bismuth glass microcomposite dielectrics for plasma display panel", **Journal of Materials Science: Materials in Electronics**, 22 (2011) 515-22.
17. **A. Tarafder**, K. Annapurna, R. S. Chaliha, S. Satapathy, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Second harmonic generation in ferroelectric $LiTaO_3$ and $KNbO_3$ containing bulk nano glass-ceramics", **Journal of Nonlinear Optical Physics and Materials**, 20 (2011) 49-61.
18. **A. Tarafder**, K. Annapurna, R. S. Chaliha, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Effects of nano $LiTaO_3$ crystallization on dielectric and optical properties in Er^{3+} -doped $Li_2O-Ta_2O_5-SiO_2-Al_2O_3$ Glasses", **International Journal of Applied Ceramic Technology**, 8 (2011) 1031-41.
19. A. R. Molla, **A. Tarafder** and B. Karmakar, "Synthesis and properties of glasses in the $K_2O-SiO_2-Bi_2O_3-TiO_2$ system and bismuth titanate ($Bi_4Ti_3O_{12}$) nano glass-ceramics thereof", **Journal of Materials Science**, 46 (2011) 2967-76.

20. R. S. Chaliha, V. S. Tiwari, P. K. Gupta, K. Annapurna, **A. Tarafder** and B. Karmakar, "Structure and dielectric properties of potassium niobate nano glass-ceramics", **Journal of Materials Science: Materials in Electronics**, 22 (2011) 728-34.
21. A. D. Sontakke, K. Biswas, **A. Tarafder**, R. Sen and K. Annapurna, "Broadband Er^{3+} emission in highly nonlinear bismuth modified zinc-borate glasses", **Optical Materials Express**, 1 (2011) 344-56.
22. **A. Tarafder**, S. P. Singh and B. Karmakar, "Environmentally friendly and new generation glasses for plasma TV", **Kanch**, 4 (2011) 42-48.

2012

23. **A. Tarafder**, A. R. Molla, S. Mukhopadhyay and B. Karmakar, "Synthesis and properties of $SrBi_2Ta_2O_9$ -based glass-ceramics modified with Eu^{3+} ", **Journal of the American Ceramic Society**, 95[6] (2012) 1851-57.
24. A. R. Molla, **A. Tarafder**, S. Mukherjee and B. Karmakar, "Transparent Eu^{3+} -doped ferroelectric bismuth titanate glass-ceramic nanocomposites: fabrication and properties", **Journal of the American Ceramic Society**, 95[10] (2012) 3056-63.

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25. **A. Tarafder**, A. R. Molla and B. Karmakar, "Enhanced photoluminescence and structure of Dy^{3+} -doped $SrBi_2Ta_2O_9$ -containing transparent glass-ceramics", **Optical Materials**, 35[8] (2013) 1549-56.
26. **A. Tarafder**, A. R. Molla, C. Dey and B. Karmakar, "Thermal, structural and enhanced photoluminescence properties of Eu^{3+} -doped transparent willemite glass-ceramic nanocomposites", **Journal of the American Ceramic Society**, 96[8] 2424-2431 (2013).
27. A. R. Molla, **A. Tarafder**, S. Mukherjee, S. K. Mohanty and B. Karmakar, "Processing and properties of Eu^{3+} -doped barium bismuth titanate ($BaBi_4Ti_4O_{15}$) glass-ceramic nanocomposites", **Journal of the American Ceramic Society**, 96[8] (2013) 2387-2395.
28. U. Gangadharini, A. R. Molla, **A. Tarafder** and B. Karmakar, "Synthesis and Characterization of Eu^{3+} -doped transparent glass-ceramics containing nanocrystalline $Sr^{II}Nb^{IV}O_3$ ", **Journal of the American Ceramic Society**, 96[7] (2013) 2155-2162.

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29. **A. Tarafder**, A. R. Molla, S. Mukhopadhyay and B. Karmakar, "Fabrication and enhanced photoluminescence properties of Sm^{3+} -doped $ZnO-Al_2O_3-B_2O_3-SiO_2$ glass derived willemite glass-ceramic nanocomposites", **Optical Materials**, 36[9] (2014) 1463-1470.
30. **A. Tarafder**, A. R. Molla, S. Mukhopadhyay and B. Karmakar, "Fabrication and photoluminescence properties of Ag^0 and Ag^0-Er^{3+} containing plasmonics glass nanocomposites in the $K_2O-ZnO-SiO_2$ system", **Solid State Sciences**, 37 (2014) 144-153.

31. A. R. Molla, C.R. Kesavulu, R. P. S. Chakradhar, **A. Tarafder**, S. K. Mohanty, S. Mukherjee, J. L. Rao, B. Karmakar and S. K. Biswas, "*Microstructure, mechanical, thermal, EPR, and optical properties of MgAl₂O₄:Cr³⁺ spinel glass-ceramic nanocomposites*", **Journal of Alloys and Compounds**, 583 (2014) 498-509.
32. A. R. Molla, **A. Tarafder**, S. Mukherjee and B. Karmakar, "*Transparent Nd³⁺-doped bismuth titanate glassceramic nanocomposites: Fabrication and properties*", **Optical Materials Express**, 4[4] (2014) 843-863.
33. A. R. Molla, **A. Tarafder**, C. Dey, B. Karmakar, "*Synthesis and properties of ZnTe and Eu³⁺ ion co-doped glass nanocomposites*", **Journal of Applied Physics**, 116[16] (2014) 163510, 13 pages.
34. C. Dey, A. R. Molla, **A. Tarafder**, M. K. Mishra, G. De, M. Goswami, G. P. Kothiyal and B. Karmakar, "*Single-step in-situ synthesis and optical properties of ZnSe nanostructured dielectric nanocomposites*", **Journal of Applied Physics**, 115 (2014) 134309, 10 pages.
35. M. Garai, N. Sasmal, A. R. Molla, S. P. Singh, **A. Tarafder** and B. Karmakar, "*Effects of nucleating agents on crystallization and microstructure of fluorophlogopite mica-containing glass-ceramics*", **Journal of Materials Science**, 49[4] (2014) 1612-1623.
36. N. Sasmal, M. Garai, A. R. Molla, **A. Tarafder**, S. P. Singh and B. Karmakar, "*Effects of lanthanum oxide on the properties of barium-free alkaline-earth borosilicate sealant glass*", **Journal of Non-Crystalline Solids**, 387[4] (2014) 62-70.

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37. M. Garai, N. Sasmal, A. R. Molla, **A. Tarafder** and B. Karmakar, "*Effects of in-situ generated coinage nanometals on crystallization and microstructure of fluorophlogopite mica containing glass-ceramics*", **Journal of Materials Science and Technology**, 31[1], 2015, 110-119.
38. J. Sarkar, **A. Tarafder** and B. Karmakar, "*Processing and characterization of in-situ generated nanosilver and Er³⁺ co-doped bromoborosilicate glass nanocomposites*", **Journal of Nanoscience and Nanotechnology**, 15[9] (2015) 6582-6591.
39. N. Shasmal, **A. Tarafder** and B. Karmakar, "*Anomalous properties of chloroborosilicate glasses in the K₂O-BaO-Al₂O₃-B₂O₃-SiO₂-BaCl₂ system*", **Bulletin of Materials Science**, 38[6] (2015) 1487-1497.

2016

40. A. R. Molla, **A. Tarafder** and B. Karmakar, "*Fabrication and properties of Nd³⁺-doped ferroelectric barium bismuth titanate glass-ceramic nanocomposites*", **Journal of Alloys and Compounds**, 680 (2016) 237-246.

2017

41. A. R. Molla, **A. Tarafder**, N. Sasmal, J. Mistry and B. Karmakar, *Synthesis and characterization of Low Tg As-S-I chalcogenide glass for processing of raw diamonds*, **International Journal of Applied Glass Science**, 8 (2017) 132–135.

2018

42. A. Chakrabarti, **A. Tarafder** and A. R. Molla, *Synthesis of Eu^{3+} -doped $\text{BaBi}_2\text{Ta}_2\text{O}_9$ based glass-ceramic nanocomposites: Optical and dielectric properties*, **Journal of the American Ceramic Society**, 101[1] (2018) 231–243.
43. R. Kumar, A. R. Molla, A. Chakrabarti and **A. Tarafder**, *Eu^{3+} -doped transparent potassium lanthanum silicate (KLaSiO_4) glass-ceramic nanocomposites: Synthesis, Properties and Application*, **Journal of the European Ceramic Society**, 38 (2018) 2639–2648.
44. **A. Tarafder**, B. Karmakar and A. R. Molla, *Nano Gold (Au^0) and Au^0 - Er^{3+} Containing Plasmonic $\text{K}_2\text{O-ZnO-SiO}_2$ Glass Nanocomposites: Processing and Properties*, **Transactions of the Indian Ceramic Society**, 77[1] (2018) 12–19.

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45. S. Bindai, K. Annapurna and A. Tarafder, *Realization of phosphor-in-glass thin film on soda-lime silicate glass with low sintering temperature for high color rendering white LEDs*, **Applied Optics**, 58[9] (2019) 2372–2381.

Publications in Conference/Symposium/Seminar

2004

- 1) **A. Tarafder** and S. P. Singh, "Studies on preparation and properties of radiation shielding lead-alkali-silicate glasses", presented in the "Society of Glass Technology Annual Conference" held at University of Liverpool, Liverpool, UK during April 21-23, 2004. **(Oral Presentation)**

2005

- 2) S. Ganguly, P. V. Mathure, R. Vijayan, **A. Tarafder**, A. V. Patwardhan, R. K. Saha, "Role of membrane reactors in steam reforming of hydrocarbons to produce hydrogen – A review", presented in the "1st Annual Session of Students' Chemical Engineering Congress (SCHEMCON 2005)" organized by Indian Institute of Chemical Engineers" held at IIT Guwahati, Guwahati during December 7-9, 2005. **(Poster Presentation)**

2008

- 3) R. S. Chaliha, K. Annapurna, **A. Tarafder**, V. S. Tiwari, P. K. Gupta and B. Karmakar, "Isothermal nanostructured crystallization and property evaluation of Eu^{3+}

doped K₂O-Nb₂O₅-SiO₂ glasses", presented in the "National Symposium on Science and Technology of Glass/Ceramics (NSGC-08)" held at BARC, Mumbai during October 15-17, 2008. **(Poster Presentation)**

- 4) S. P. Singh, K. Pal, **A. Tarafder**, M. Das, K. Annapurna and B. Karmakar, "*Effects of TiO₂ and SiO₂ fillers on the properties of lead-free environmental-friendly ZnO-Bi₂O₃-B₂O₃ glass microcomposites of plasma display panels*", presented in the "National Symposium on Science and Technology of Glass/Ceramics (NSGC-08)" held at BARC, Mumbai during October 15-17, 2008. **(Poster Presentation)**

2009

- 5) **A. Tarafder**, K. Annapurna, R. S. Chaliha, V. S. Tiwari, P. K. Gupta and B. Karmakar, "*Effect of nanostructuring on fluorescence properties of Eu³⁺ doped LiTaO₃ containing glass-ceramics*", Presented in the "National Conference on Luminescence and its Applications (NCLA-2009)" held at IACS, Kolkata during February 19-21, 2009. **(Oral Presentation)**
- 6) R. S. Chaliha, K. Annapurna, **A. Tarafder**, V. S. Tiwari, P. K. Gupta and B. Karmakar, "*Crystallization enhanced remarkable NIR luminescence in Nd³⁺ doped K₂O-Nb₂O₅-SiO₂ nano glass-ceramics*", presented in the "National Conference on Luminescence and its Applications (NCLA-2009)" held at IACS, Kolkata during February 19-21, 2009. **(Poster Presentation)**
- 7) R. S. Chaliha, K. Annapurna, **A. Tarafder**, V. S. Tiwari, P. K. Gupta and B. Karmakar, "*Fluorescence properties of Eu³⁺ ions in K₂O-Nb₂O₅-SiO₂ nano glass-ceramics*", presented in the "International Conference on Transport & Optical Properties of Nanomaterials (ICTOPON-2009)" held at University of Allahabad, Allahabad during January 5-8, 2009. **(Poster Presentation)**

2010

- 8) **A. Tarafder**, K. Annapurna, R. S. Chaliha and B. Karmakar, "*Isothermal crystallization of nano LiTaO₃ in Nd³⁺-doped Li₂O-Ta₂O₅-SiO₂-Al₂O₃ glass and their properties*", Presented in the "International Workshop and Symposium on the Synthesis and Characterization of Glass/Glass-Ceramics (IWSSCGGC-2010)" held at C-MET, Pune during July 7-10, 2010. **(Oral Presentation)**
- 9) **A. Tarafder**, "*Synthesis of transparent Y₃Al₅O₁₂ (YAG) nano glass-ceramics by a novel low cost technique for solid-state laser application*", Presented in the "Young Scientist's Colloquium (YSC-2010)" held at Bengal Engineering and Science University, Shibpur, Kolkata during October 29, 2010. **(Oral Presentation)**
- 10) A. R. Molla, **A. Tarafder** and B. Karmakar, "*Processing and properties of bismuth titanate (Bi₄Ti₃O₁₂) glasses and glass-ceramic nano composites*" Presented in the "International Workshop and Symposium on the Synthesis and Characterization of Glass/Glass-Ceramics (IWSSCGGC-2010)" held at C-MET, Pune during July 7-10, 2010. **(Poster Presentation)**

2011

- 11) **A. Tarafder** and B. Karmakar, "*Transparent Eu³⁺:Y₃Al₅O₁₂ (YAG) glass-ceramic nanocomposites: synthesis and photonic application*" Presented in the "74th Annual

Session of The Indian Ceramic Society" held at Hotel Taj Bengal, Kolkata during January 11-13, 2011. **(Poster Presentation)**

- 12) **A. Tarafder**, A. R. Molla and B. Karmakar, "*Transparent $\text{Eu}^{3+}:\text{SrBi}_2\text{Ta}_2\text{O}_9$ glass-ceramic nanocomposites: a novel nonlinear photonic material*" Presented in the "The International Conference on Specialty Glass & Optical Fiber: Materials, Technology & Devices (ICGF-2011)" held at CSIR-Central Glass and Ceramic Research Institute, Kolkata during August 04-06, 2011. **(Poster Presentation)**
- 13) A. R. Molla, **A. Tarafder** and B. Karmakar, "*Transparent Eu^{3+} -doped bismuth titanate glass-ceramic nanocomposites: fabrication and properties*" Presented in the "The International Conference on Specialty Glass & Optical Fiber: Materials, Technology & Devices (ICGF-2011)" held at CSIR-Central Glass and Ceramic Research Institute, Kolkata during August 04-06, 2011. **(Poster Presentation)**
- 14) A. Sarkar, **A. Tarafder** and B. Karmakar, "*Glass formation and properties of high-expansion low-phonon antimony oxide glasses in the $\text{MO-B}_2\text{O}_3\text{-Sb}_2\text{O}_3$ ($M=\text{Pb}$ and Ba) systems*" Presented in the "The International Conference on Specialty Glass & Optical Fiber: Materials, Technology & Devices (ICGF-2011)" held at CSIR-Central Glass and Ceramic Research Institute, Kolkata during August 04-06, 2011. **(Poster Presentation)**
- 15) S. P. Singh, **A. Tarafder** and B. Karmakar, "*Preparation and properties of novel environmentally friendly lead (Pb)-free glass microcomposites for barrier rib and white back dielectrics of plasma TV*" Presented in the "The International Conference on Specialty Glass & Optical Fiber: Materials, Technology & Devices (ICGF-2011)" held at CSIR-Central Glass and Ceramic Research Institute, Kolkata during August 04-06, 2011. **(Poster Presentation)**

2012

- 16) A. R. Molla, **A. Tarafder** and B. Karmakar, "*Transparent Eu^{3+} -doped ferroelectric barium bismuth titanate glass-ceramic nanocomposites: fabrication and properties*" Presented in the "International Conference of Young Researchers on Advanced Materials (ICYRAM-2012)" held at Singapore during July 01-06, 2012. **(Oral Presentation)**
- 17) M. Garai, N. Sasmal, **A. Tarafder** and B. Karmakar, "*Fluorophologophite mica-containing glass-ceramic as SOFC sealant: Nucleating agent controlled microstructural evolution*" Presented in the "National Symposium on Materials and Processing-2012 (MAP-2012)" held at BARC, Mumbai during October 10-12, 2012. **(Poster Presentation)**
- 18) N. Sasmal, M. Garai, **A. Tarafder** and B. Karmakar, "*Processing and properties of barium-free glass sealant for solid oxide fuel cells*" Presented in the "National Symposium on Materials and Processing-2012 (MAP-2012)" held at BARC, Mumbai during October 10-12, 2012. **(Poster Presentation)**
- 19) A. R. Molla, **A. Tarafder**, U. Gangadharini, S. Mukherjee and B. Karmakar, "*Crystallization enhanced photoluminescence in Eu^{3+} -doped barium bismuth titanate ($\text{BaBi}_4\text{Ti}_4\text{O}_{15}$) glass-ceramic nanocomposites*" Presented in the "1st International Workshop on Nanomaterials (IWON): Engineering Photon and Photon Transport" held

at Jadavpur University, Kolkata during December 14-15, 2012. **(Poster Presentation)**

- 20) C. Dey, A. R. Molla, **A. Tarafder**, M. Goswami, G. P. Kothiyal and B. Karmakar, "*Controlled creation of CdSe nanomaterials in borosilicate glass matrix for photonic application*" Presented in the "1st International Workshop on Nanomaterials (IWON): Engineering Photon and Photon Transport" held at Jadavpur University, Kolkata during December 14-15, 2012. **(Poster Presentation)**
- 21) U. Gangadharini, A. R. Molla, **A. Tarafder** and B. Karmakar, "*Synthesis and characterization of Eu³⁺-doped glass-ceramics containing nanocrystalline Sr^{II}Nb^{IV}O₃*" Presented in the "1st International Workshop on Nanomaterials (IWON): Engineering Photon and Photon Transport" held at Jadavpur University, Kolkata during December 14-15, 2012. **(Poster Presentation)**

2013

- 22) **A. Tarafder**, A. R. Molla, U. Gangadharini and B. Karmakar, "*Fabrication and properties of Eu₂O₃ doped transparent willemite (Zn₂SiO₄) glass-ceramic nanocomposites*" Presented in the "International Union of Materials Research Societies-International Conference in Asia-2013 (IUMRS-ICA-2013)" held at Indian Institute of Science in Bangalore during December 16-20, 2013. **(Poster Presentation)**
- 23) A. R. Molla, **A. Tarafder**, U. Gangadharini, M. Goswami, G. P. Kothiyal and B. Karmakar, "*Zn^{II}Te^{VI} semiconductor and Eu⁺³-ion co-doped glass nanocomposites: Processing and characterization*" Presented in the "International Union of Materials Research Societies-International Conference in Asia-2013 (IUMRS-ICA-2013)" held at Indian Institute of Science in Bangalore during December 16-20, 2013. **(Oral Presentation)**
- 24) N. Sasmal, M. Garai, A. R. Molla, **A. Tarafder** and B. Karmakar, "*Influence of lanthanum oxide on the properties of alkaline-earth borosilicate glass based solid oxide fuel cell sealant*" Presented in the "International Union of Materials Research Societies-International Conference in Asia-2013 (IUMRS-ICA-2013)" held at Indian Institute of Science in Bangalore during December 16-20, 2013. **(Poster Presentation)**

2014

- 25) A. R. Molla, **A. Tarafder** and B. Karmakar, "*Functional nano glass-ceramics: synthesis, properties and applications*", presented in the "International Seminar on Glasses and other Functional Materials (ISGFM-2015)", held at Acharya Nagarjuna University, Guntur, A. P. during 11-13 December, 2014. **(Poster Presentation)**
- 26) N. Shasmal, **A. Tarafder**, A. R. Molla and B. Karmakar, "*Synthesis and photoluminescence of nano silver in chloroborosilicate glass and glass-ceramics*", presented in the "International Seminar on Glasses and other Functional Materials (ISGFM-2015)", held at Acharya Nagarjuna University in Guntur, A. P. during 11-13 December, 2014. **(Poster Presentation)**

2015

- 27) **A. Tarafder**, A. R. Molla and B. Karmakar, "*Photoluminescence of Ag^0 and Ag^0-Er^{3+} containing plasmonic glass nanocomposites*", presented in the "3rd International Conference on Nanoscience and Nanotechnology (ICONN-2015)", held at Department of Physics and Nanotechnology, SRM University in Chennai during 4-6 February, 2015. **(Oral Presentation)**

2017

- 28) **A. Tarafder**, A. Mandal, R. Dasgupta and B. Karmakar, "*Enhanced mid-infrared emission from $Dy^{3+}:As_2S_3$ chalcogenide glass-ceramics: A promising material for IR photonic devices*", presented in the "International Conference on Advances in Glass Science and Technology (ICAGST-2017)", held at CSIR-Central Glass and Ceramic Research Institute, Kolkata during 23-25 January, 2017. **(Poster Presentation)**
- 29) R. Kumar and **A. Tarafder** "*KLaSiO₄ (KLS) bulk glass-ceramic nanocomposites: A novel material for photonics*", presented in the "International Conference on Advances in Glass Science and Technology (ICAGST-2017)", held at CSIR-Central Glass and Ceramic Research Institute, Kolkata during 23-25 January, 2017. **(Poster Presentation)**
- 30) A. Chakrabarty, **A. Tarafder** and A. R. Molla, "*Synthesis and characterization of Eu^{3+} doped ferroelectric $BaBi_2Ta_2O_9$ based glass-ceramic nanocomposites*", presented in the "International Conference on Advances in Glass Science and Technology (ICAGST-2017)", held at CSIR-Central Glass and Ceramic Research Institute, Kolkata during 23-25 January, 2017. **(Poster Presentation)**

2018

- 31) A. Chakrabarti, **A. Tarafder**, K. Biswas and A. R. Molla, "Use of crystallization kinetic studies for controlled crystallization of glasses for synthesis of transparent glass-ceramics: A case study for ferroelectric glass-ceramics" presented in the "ICG Annual Meeting 2018" held at Yokohama, Japan during 23-26 September 2018. **(Oral Presentation)**

2019

- 32) S. Prasad, Amarnath. R. Allu, **A. Tarafder**, K. Annapurna and K. Biswas, "Sintering behaviour and in vitro biomineralization properties of B_2O_3/CaF_2 incorporated bioactive glasses" presented in the "National Conference on 'Innovation and Technologies for Ceramics' 83rd Annual Session of InCerS" held at CSIR-NIIST, Thiruvananthapuram during 11-12 December 2019. **(Poster Presentation)**
- 33) S. Khan, K. Biswas, **A. Tarafder**, Akila Prabudessai and K. Annapurna, "Alternate mineral sources for commercial soda lime silicate glass: Effective glass melting and processing" presented in the "National Conference on 'Innovation and Technologies for Ceramics' 83rd Annual Session of InCerS" held at CSIR-NIIST, Thiruvananthapuram during 11-12 December 2019. **(Poster Presentation)**

Publication in Book

- (i) **A. Tarafder** and B. Karmakar, "Nanostructured $LiTaO_3$ and $KNbO_3$ Ferroelectric Transparent Glass-Ceramics for Applications in Optoelectronics", in ***Ferroelectrics***

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- (ii) **A. Tarafder**, A. R. Molla and B. Karmakar, "Advanced Glass-Ceramic Nanocomposites for Structural, Photonic, and Optoelectronic Applications", in **Glass Nanocomposites: Synthesis, Properties and Applications** (ISBN 978-0-323-39309-6) edited by Basudeb Karmakar, Klaus Rademann and Andrey L. Stepanov, Elsevier, Vienna, USA, Chapter 13, pp. 299-338, 2016.
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