List of Publications:

In SCI Journals:

1. **Tailored Bioactive Glass Coating: Navigating Devitrification Toward a Superior Implant Performance,** A. Chakraborty, S. Bodhak, I. Tah, S. Kant D. Saha, K. K. Dey, N. Gupta, M.Ghosh, S. Tripathy A. R Allu, **K.Biswas,** *ACS Biomat. Sci. & Engg.* 10 (8), (2024) 4645-5408.

2. **Effect of Nd_2O_3 concentration on crystallization mechanism and third-order optical nonlinearity of lanthanide-titanium-tellurite glass and glass-ceramics,** P. Patra, J. Gangareddy, V. Rao Soma, **K. Biswas,** K. Annapurna, *Cryst. Growth and Design,* 24 (12), (2024) 5039.
3. **Deciphering the Nd environment and energy-transfer mechanisms in thermally stable novel calcium aluminate glasses: elucidation of broadband high-gain performance for laser applications,** S. Chakraborty, S. Khan, S. Balaji, **K. Biswas**, K. Annapurna, *J. Phys. D: Appl. Phys.* 57(38), (2024), 385304.

4. **An insight into the thermal processability of highly bioactive borosilicate glasses through kinetic approach,** A. Chakraborty, S. Bodhak, AR Molla, K. Annapurna, **K. Biswas**, *Inter. J. Appl. Glass Sci.* 14 (4), (2023) 534-548.
5. **Thermal, structural, and conductivity properties of As14Sb26S (60− x)–(AgI) x chalcogenide glasses,**
   AG Prabhudessai, S Balaji, S Prasad, S Chahal, **K Biswas**, K Ramesh, A. Yadav, S. Chakraborty, P. S. Kongar, S. Chatterjee, S. Dutta, R. Dasgupta, P. Sarkar, K Annapurna, *J. Appl. Phys.* 135 (9), (2024) 095107

6. **Effect of gamma ray irradiation on optical and luminescence properties of CeO_2 doped bismuth glass**, S. Mandal, S. Manna, **K. Biswas**, S. Nag, B. Ambade, *Ceram. Inter.* 49 (14), (2023) 23878.

7. **Thermally stable bioactive borosilicate glasses: Composition–structure–property correlations**, A. Chakraborty, S. Prasad, S. Kant, R. Vel, S. Tripathy, PK Sinha, K. K Dey, L. Lodhi, M. Ghosh, A. R Allu, S. Bodhak, **K. Biswas**, *J. Mater. Sci*. 38 (11), (2023) 2969.
8. **The effect of rare earth (RE^{3+}) ionic radii on transparent lanthanide-tellurite glass-ceramics: correlation between 'hole-formalism' and crystallization,** P. Patra, K. Jayanthi, F. Margit, S. R Keshri, S. Bysakh, **K. Biswas**, N. N. Gosvami, A. Krishnan, A. R Allu, K Annapurna, *Mater. Adv.*, 4, (2023) 2667

9. **Low expansion glass-ceramics using industrial waste and low-cost aluminosilicate minerals: fabrication and characterizations,** S. Mandal, R. Chatterjee, S. Nag, S. Manna, S. Jana, K. Biswas, B. Ambade, *Trans. Ind. Ceram. Soc.* 82 (2023) 46.
10. **Factors governing the sinterability, In vitro dissolution, apatite formation and antibacterial properties in B_2O_3 incorporated S53P4 based glass powders,** S. Prasad, M. Fabian, S.Ganisetti, A. Tarafder, S, Kanth, P. K. Sinha, S. Tripathy, K. Annapurna, A. R. Allu and **K. Biswas,** *Ceram. Inter.*48 (2022), 4512.
11. **Influence of Ho_2O_3 on Optimizing Nanostructured $Ln_2Te_6O_{15}$ Anti-Glass Phases to Attain Transparent TeO_2-Based Glass-Ceramics for Mid-IR Photonic Applications,** G. Gupta, S. Bysakh, S. Balaji, S. Khan, **K. Biswas**, A. R Allu, K. Annapurna, Adv. Eng. Mat. 22 (5), (2020)1901357.

12. **Elucidating the effect of CaF_2 on structure, biocompatibility and antibacterial properties of S53P4 glass,** S. Prasad, S.Ganisetti, A. Jana, S, Kanth, P. K. Sinha, S. Tripathy, K. Illath, T. G. Ajithkumar, K. Annapurna, A. R. Allu and **K. Biswas,** *J. Alloys Compd.*, 831 (2020) 154704

13. **Structure and Stability of High CaO and P_2O_5 Containing Silicate and Borosilicate Bioactive Glasses,** S. Prasad, A. Gaddam, A. Jana, S. Kant, P. K. Sinha, S. Tripathy, K. Annapurna, J. M. F. Ferreira, A. R. Allu, and **K.Biswas,** *J. Phys. Chem. B,* 123 (2019) 7558−7569

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15. **Frequency upconversion mechanism in Ho^{3+}/Yb^{3+}-codoped $TeO_2–TiO_2–La_2O_3$ glasses,** G. Gupta, S. Balaji, **K. Biswas,** and K. Annapurna, *Appl. Phys. B*, (2019) 28.

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19. **Structural elucidation of NASICON ($Na_3Al_2P_3O_{12}$) based glass electrolyte materials: effective influence of boron and gallium,** A. R. Allu, S. Balaji, K. Illath, C. Hareendran, T. G. Ajithkumar, **K. Biswas** and K. Annapurna, *RSC Adv.* 8 **(**2018) 14422-14433.

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21. **Eu^{3+}doped ferroelectric $BaBi_2Ta_2O_9$ based glass-ceramic nanocomposites: Crystallization kinetics and energy storage properties,** A.Chakrabarti, **K. Biswas**, A. R. Molla, *J. Alloys Compd.*, 740 (2018) 237-249.
22. Str**uctural modification associated with Al_2O_3 addition in oxyfluoride glasses: thermal and mechanical properties, K. Biswas,** P. Karmakar, S. Balaji, G. Gupta, D. Ghosh, and K. Annapurna, *J. Am. Ceram. Soc*, 100 (2017) 5490-5501.

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