List of publication for Mr. Ashis Kumar Mandal

In peer reviewed journals:

2022

30. A comparative study on copper doped sodium alumina-phosphate glass with conventional and microwave heating, Biplab Das and Ashis Kumar Mandal, Optical Materials 134 (2022) 113146.

2021

29. Microwave and conventional preparation of P_2O_5 – ZnO - Al_2O_3 - Na_2O Glass: Eu^{3+} ion as luminescent probe**" Ashis Kumar Mandal, Transactions of the Indian Institute of Metals** 74(4), 827-837 https:// doi.org/10.1007/s12666-020-02163-9; IF: 1.205 (2021) **IF: 1.205 (2021)**

28. Effect of melting time on volatility, OH in glass in microwave processing, Materials and Manufacturing Processes, (2021) 36:4, 426-434, DOI: 10.1080/10426914.2020.1843670 (IF : 3.046)

2019

27. Green synthesis of iron oxide nanoparticles for arsenic remediation in water and sludge utilization, Abhradeep Majumder · Lata Ramrakhiani · Debarati Mukherjee · Umesh Mishra · Avik Halder ·Ashish K. Mandal · Sourja Ghosh, **Clean Technologies and Environmental Policy**. https://doi.org/10.1007/s10098-019-01669-1.

26. Utilization of multi-metal laden spent biosorbent for removal of glyphosate herbicide from aqueous solution and its mechanism elucidation, Lata Ramrakhiani, Sourja Ghosha, Ashis K. Mandal, Swachchha Majumdar, **Chemical Engineering Journal** 361 (2019) 1063–1077.

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25. Preservation of higher Fe[II] content in borosilicate glass by microwave irradiation in air, Ashis K.Mandal Ranjan Sen, **Materials Research Bulletin** 108 (2018) 156–162 https://doi.org/10.1016/j.materresbull.2018.08.034

24. Mandal AK, Sen R. Optimization of melting parameters and minimizing OH content in SiO_2 - B_2O_3 - Na_2O - BaO glass system in microwave heating. ***Int J Appl Glass Sci.*** 2018;00:1-9. https://doi.org/10.1111/ijag.12439.

23. Preparation of colourless phosphate glass by stabilising higher Fe[II] in microwave heating, **A. K. Mandal**[*], B. Mandal, Kavya I, T.G. Ajithkumar, A. Halder, P. K. Sinha, and Ranjan Sen, **Scientific Reports** | *(2018) 8:6195* | DOI:10.1038/s41598-018-24287-1

22. Preparation of Chromium doped phosphate glass adopting microwave irradiation and comparative analysis of properties with conventional glass, Arijit Basak, Lata Ramrakhiani, Sourja Ghosh, Ranjan Sen, **Ashis K Mandal**[*]**, Journal of Non-Crystalline Solids** 500 (2018) 11–17 ***(2018).*** https://doi.org/10.1016/j.jnoncrysol.2018.04.014]

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21 . A Comparative Property Investigation of Lithium Phosphate Glass Melted in Microwave and Conventional Heating, Avik Halder, Biswajit Mandal, Sourindra Mahanty, Ranjan Sen and **Ashis Kumar Mandal***, **Bull. Mater. Sci**., 40, 5 (2017) 999–1006**;** DOI 10.1007/s12034-017-1437-6.

20. Industrial waste derived biosorbent for toxic metal remediation: Mechanism studies and spent biosorbent management, Lata Ramrakhiani, Avik Halder, Abhradeep Majumder, **Ashis K. Mandal**, Swachchha Majumdar,Sourja Ghosh, ***Chemical Engineering Journal*** 308 (**2017**) 1048–1064**.**

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19. Investigation of iron redox ratio in zinc borate glass prepared in microwave heating and comparison with conventional glass, Biswajit Mandal, Avik Halder, Prasanta Kumar Sinha, Ranjan Sen, **Ashis Kumar Mandal**, ***Journal of Non-Crystalline Solids*** 450 (2016) 12–17. DOI: 10.1016/j.jnoncrysol.2016.07.028

18. A comparative spectrophotometric study using ferrozine and 1, 10 ortho-phenanthroline to evaluate the iron redox ratio (Fe^{2+}/Σ Fe) in glass prepared by microwave heating, Biswajit Mandal, Prasanta Kumar Sinha, Ranjan Sen And **Ashis Kumar Mandal*,** ANALYTICAL SCIENCES MAY 2016, VOL. 32, Page 571-576**. DOI:** 10.2116/analsci.32.571

17. An Overview on Microwave Processing of Material: A Special Emphasis on Glass melting, **Ashis K. Mandal*** and Ranjan Sen; **Materials and Manufacturing Processes, 2016,** DOI: 10.1080/10426914.2016.1151046

16. Fabrication of Reliable Joints of Alumina Ceramics by Microwave-Assisted Reactive Brazing Technique, M Shukla, S Ghosh, N Dandapat, **AK Mandal**, VK Balla - **MATERIALS TRANSACTIONS**, 57, 3, **2016**, 392-396

15. Microwave-assisted brazing of alumina ceramics for electron tube applications ; Mayur Shukla, Sumana Ghosh, Nandadulal Dandapat, **Ashis K Mandal** and Vamsi K Balla , ***Bulletin of Materials Science*** · Vol. 39, No. 2, April 2016, pp. 587–591, DOI: 10.1007/s12034-016-1167-1

14. Comparative Study on Conventional Sintering with Microwave Sintering and Vacuum Sintering of Y2O3-Al2O3-ZrO2 Ceramics, Mayur Shukla, Sumana Ghosh, Nandadulal Dandapat, **Ashis K. Mandal,** Vamsi K. Balla, **Journal of Materials Science and Chemical Engineering, 2016**, 4, 71-78.

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13. Microwave absorption of barium borosilicate, zinc borate, Fe-doped alumino-phosphate glasses and its raw material, **Ashis K Mandal** ,*, Ranjan Sen, **Technologies *(Microwave Energy Applications)* 2015**, *3*(2), 111-125; doi:10.3390/technologies3020111.

12. Higher Fe^{2+}/ total Fe ratio in Iron doped phosphate glass melted by microwave heating, **Ashis K. Mandal***, Prasanta K. Sinha, Dipankar Das, Chandan Guha, Ranjan Sen, **Materials Research Bulletin** 63 (2015) 141–146.

11. Energy efficient melting of Glass for Nuclear Waste Immobilization using Microwave radiation**; Mandal A.K.***, Sen S., Mandal S. , Guha C. and Sen R. **International Journal of Green Energy** (2015) **12**, 1280–1287

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10. Microwave and conventional preparation of Zinc Borate glass: Eu3+ ion as luminescent probe, **Ashis K. Mandal[*],** S. Balaji and Ranjan Sen, Journal of Alloys and Compounds 615 (**2014**) 283–289**.**

9. Cordierite based glass-ceramic glazed floor tile by microwave processing, S. Ghosh, K. S. Pal, **A. K. Mandal**, N. Biswas, M. Bhattacharya, P. Bandyopadhyay, **Materials Characterization** 95 (**2014**) 192 – 200.

8. Microwave preparation of SiO_2 - B_2O_3 -Na_2O- K_2O- CaO-Fe_2O_3 - TiO_2 Glass system, **Ashis Kumar Mandal[*],** Prasanta Kumar Sinha, Santanu Sen, Sitendu Mandal, Chandan Guha and Ranjan Sen. **J. Chem. Chem. Eng.** 8 (**2014**) 349-357.

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7. Preparation of Homogeneous Barium Borosilicate Glass Using Microwave Energy**; Ashis Kumar Manda**l[*], Dinesh Agrawal and Ranjan Sen **, Journal of Non-Crystalline Solids**, Volumes 371–372, 1 July 2013, Pages 41–46.

6. Preparation of Alumino-Phosphate Glass by Microwave Radiation, **Ashis K. Mandal[*]**, Kaushik Biswas, K. Annapurna, C. Guha and Ranjan Sen" **J. Mater. Res.,** Vol. 28, No. 14, Jul 28, 2013, pp. 1955-61

5. Indigenous Development of High Energy, High Power Laser and its Amplifier Optics, A.S. Joshi, A.K. Sharma, M.P. Kamath, R.K. Patidar, D. Daiya, P.K. Tripathi, M.S. Ansari, N. Sreedhar, R. Chandra, B. Singh, R. Pareek, S. Chatterjee, K. Annapurna, B. Karmakar, **A.K. Mandal**, R. Chakraborty, R. Sen, C.P. Navathe, P.A. Naik and P.D. Gupta, Kiran: A bulletin of Indian Laser Association, Vol 24, No 3, P-12-19, December 2013.

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3. Measurement of the figure of merit of indigenously developed Nd-doped phosphate laser glass rods for use in high power lasers, A P Kulkarni, S Jain, M P Kamath, A S Joshi, P A Naik, P D Gupta, K Annapurna, **A K Mandal**, B Karmakar, R Sen, Pramana- Journal of Physics (Impact Factor: 0.56). 01/2014; DOI:10.1007/s12043-013-0656-7.

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2. Time resolved fluorescence and energy transfer analysis of Nd^{3+}-Yb^{3+}-Er^{3+} triply-doped Ba-Al-metaphosphate glasses for an eye safe emission (1.54 μm) , A. D. Sontakke, K.Biswas, **A. K. Mandal,** K. Annapurna, J Fluoresc (2010) 20:425–434

11 Concentration quenched luminescence and energy transfer analysis of Nd3+ ion doped Ba-Al-metaphosphate laser glasses A.D. Sontakke · K. Biswas · **A.K. Mandal** · K. Annapurna, Appl Phys B (2010) 101: 235–244.

In Conference / Seminer

Sl	*Title*	*Author*	*Details of conference /others*
1.	Microwave heating: An innovative technique to develop heat absorbing properties in glass under air atmosphere". (Invited Talk/Planary talk)	**Ashis Kumar Mandal**	National Symposium on Innovative Technology & Management for Sustainable Growth will be Organized Jointly by Faculty of Engineering & Technology, Jadavpur University, Kolkata 700 032 and Vivekananda Institute of Environment & Management, Kolkata 700 091during 16- 17 January 2023Schedule of lecture is on January 17 2023.
2.	Glass melting by microwave heating: A novel process technology towards sustainable development to minimize material loss,	Bibhas Kumar[1], Biplab Das[1,2], Prasanta Kumar Sinha, Uttam Jain[3], Pranesh Sengupta[3] and Ashis Kumar Mandal[1]*	National Symposium on Innovative Technology & Management for Sustainable Growth will be Organized Jointly by Faculty of Engineering & Technology, Jadavpur University, Kolkata 700 032 and Vivekananda Institute of Environment & Management, Kolkata 700 091during 16- 17 January 2023Schedule of lecture is on January 17 2023. (Oral)
3.	"Oxidation behavior of copper metal in phosphate glass matrix: An influence of microwave heating" (Poster)	Biplab Das and Ashis Kumar Mandal	International Conference on Global Trends in Traditional to Space Ceramics, 86th Annual Session of the Indian Ceramic Society, 8th -9 th Dec, 2022, IIT-BHU Varanasi, India)
4.	"Synthesis of Cesium Bismuth Iodide for the assessment of cesium content in glass prepared by Microwave and Conventional Heating", (Poster)	Bibhas Kumar, Biplab Das, Prasanta Kumar Sinha, Uttam Jain, Pranesh Sengupta and Ashis Kumar Mandal	International Conference on Global Trends in Traditional to Space Ceramics, 86th Annual Session of the Indian Ceramic Society, 8th -9 th Dec, 2022, IIT-BHU Varanasi, India)
5.	Development of Highly Porous Glass Foam Material from Waste Tube Lights and Waste Glass Bottles,	Biplab Das, Debparna Majumder, Bibhas Kumar, Atasi Pal and Ashis Kumar Mandal *,	International Conference on Advances in Glass and Glass-Ceramics (ICAGGC 2022) (An initiative under the UN International year of Glass 2022), (In hybrid mode), CSIR-CGCRI, Kolkata, 23-25 August 2022

		(Poster)	
6.	Investigation of evaporation loss during Glass Melting adopting Microwave Heating and Conventional Heating,	Bibhas Kumar[1], Biplab Das[1], Prasanta Kumar Sinha[1], Uttam Jain[2], Pranesh Sengupta[2], Ashis Kumar Mandal[1]*, (Oral)	International Conference on Advances in Glass and Glass-Ceramics (ICAGGC 2022) (An initiative under the UN International year of Glass 2022), (In hybrid mode), CSIR-CGCRI, Kolkata, 23-25 August 2022
7.	Energy efficient melting of glass with Microwave Heating: A novel method to minimize volatilization loss during melting of glass	Ashis K. Mandal (Speaker),	**26th International Congress on Glass (ICG2022), Berlin , Germany,** 03 Jul 2022 - 08 Jul 2022.
8.	Waste as sources of raw material in glass making,	Biplab Das, Sourja Ghosh, Swachchha Majumdar and Ashis Kumar Mandal* ,	5th International Conference (Online) on "Waste Management Technology, Trend & Developments"on 28th January 2022, MatCorr, New Delhi, India. (Invited Talk).
9.	Microwave Heating : A novel Energy Efficient Technique to alter Glass Property,	Ashis Kumar Mandal,	Institute Internal Seminar, CSIR-Central Glass & Ceramic Research Institute, Kolkata**,** February 18, 2021.
10.	Comparing the effect of melting times on volatility loss of volatile ingredient in conventional and microwave heating,	Yudhisthir Mandal and Ashis Kumar Mandal,	National seminar on "Propelling innovations in Glass and Ceramics for Atma Nirbhar Bharat" 84th Annual Session of Indian Ceramic Society, Kolkata Chapter, at CGCRI December 10-12 2020
11.	Waste: Potential resources for glass article preparation,	Ashis Kumar Mandal, (Invited Talk)	Waste Utilisation and Product Development (Webninar), April 30, 2020 (Invited Talk)
12.	Toxic elements in waste: Potential resources for color glass , (excellence award)	Ashis Kumar Mandal,	9th IconSWM - CE 2019: 9th International Conference on Sustainable Waste Management towards Circular Economy, KIT(DU), Bhubaneswar, Odisha, India; November 27-30, 2019 (excellence award)
13.	Toxic Waste: A potential resource in color glass making	*Ashis Kumar Mandal*	*, "Indo-German Workshop on waste to wealth" at CSIR AMPRI, Bhopal 25-26 February 2019 (**Invited Talk**).*
14.	Industrial waste activated	Lata	National conclave on Water resources

	sludge as promising biosorbent for wastewater treatment,	Ramrakhiani, Ashis K. Mandal, Swachchha Majumdar and Sourja Ghosh,	management , CSIR- Central Glass and Ceramic Research Institute, Kolkata, January 17-18, 2019
15.	*Waste activated tannery sludge as promising biosorbent for wastewater treatment,*	*Lata Ramrakhiani, Ashis K. Mandal, Swachchha Majumdar and Sourja Ghosh*	*"Indo-German Workshop on waste to wealth" at CSIR AMPRI, Bhopal 25-26 February 2019.*
16.	A safe disposal of arsenic rich sludge obtained from treatment of contaminated groundwater in glass making,	Ashis Kumar Mandal, Sourja Ghosh,	*International Conference on Water Resources and management, CSIR-CGCRI, Kolkata, January 11-1, 2018.*
17.	Influence of microwave heating on preparation of colourless phosphate glass reducing effect of iron impurity,	**Ashis Kumar Mandal**[†], Biswajit Mandal, Avik Haldar and Ranjan Sen	*International Conference on Advances in Glass Science and Technology (ICAGST-2017), CGCRI, Kolkata, January 23-25, 2017*
18.	A comparative properties analysis of transition metal doped glass prepared in microwave and conventional heating	A. Basak, A. Halder, R. Sen and **A. K. Mandal**[*]	*International Conference on Advances in Glass Science and Technology (ICAGST-2017), CGCRI, Kolkata, , January 23-25, 2017*
19.	Small Scale Glass Melting Adopting Different Heating Technique	Sanjib Samaddar and Ashis Kumar Mandal,	*International Conference on Advances in Glass Science and Technology (ICAGST-2017), CGCRI, Kolkata, January 23-25, 2017*
20.	Investigation of Glass Preparation using Tannery Solid Waste,	A. Halder, L. Ramrakhiani, S. Ghosh, R. Sen and **A. K. Mandal**[*]	*International Conference on Advances in Glass Science and Technology (ICAGST-2017), CGCRI, Kolkata, January 23-25, 2017*
21.	Inertization of hazardous Metal laden Biosorbent in glass for safe disposal after heavy metal bioremediation,	L.Ramrakhiani, A. Halder, A.K.Mandal, S. Majumdar, S.Ghosh[*],	International Conference on Advances in Glass Science and Technology (ICAGST-2017), CGCRI, Kolkata, January 23-25, 2017.
22.	*Green Synthesis of Glass using Microwave Heating*, (***Hall presentation***),	A. K. Mandal and R. Sen	"India International Science Festival-Young Scientists' Conclave (IISF-2016), CSIR-National Physical Laboratory, New Delhi, 7th – 11th December, 2016.
23.	Toxic Metal Removal Using	L. Ramrakhiani,	6th International Conference on Solid

	Biosorption Process and Inertization of Generated Hazardous Metal Laden Biosorbent, ***(IconSWM 2016 Excellent Paper Award)***	A. Halder, A.K. Mandal, S. Majundar, S. Ghosh,	Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.
24.	Microwave heating : an alternate process of glass melting (***Invited Talk***)	Ranjan Sen and Ashis Kumar Mandal,	**24th International Congress on Glass (ICG 2016),** Shanghai International Convention Center (SHICC) , China, April 7th to 11th, 2016
25.	Optimization of Melting Parameters to Develop Borosilicate Glass Using Microwave Energy"	A. K. Mandal and R. Sen,	**CHEMCON 2015**, the 68th Annual Session of the Indian Institute of Chemical Engineers at Indian Institute of Technology (IIT) Guwahati, Assam; 27-30 December, 2015
26.	Small Scale Glass Melting: A Comparative Study in Microwave and Conventional Heating,	**Ashis K. Mandal*,** Biswajit Mandal, Avik Halder, Santanu Sen and Ranjan Sen ,	National Conference on Functional Glasses / Glass-Ceramics and Ceramics" **(NCFGC - 2015)**, Nagpur, December 10-12, 2015.
27.	A Comparative property investigation of lithium alumino phosphate glass melted by microwave and conventional heating"	A. Haldar, B. Mandal, R. Sen and **A. K. Mandal,**	An workshop on Indian Innovations in Materials Research: New Materials and Process, CSIR-Central Glass and Ceramic Research Institute , Kolkata, India, **June 25-27, 2015.**
28.	Investigation of enhanced redox ratio (Fe^{2+}/ total Fe) in Barium Borosilicate glass melted under microwave heating,	B. Mandal**,** P. K. Sinha, K. Annapurna, R. Sen and **A. K. Mandal.**	**First** International Conference On Emerging Materials: Characterization & Application (EMCA-2014)CSIR-CGCRI, Kolkata, INDIA during December 4-6, 2014. (Page 119)
29.	Preparation and Characterization of Iron Doped Alumino-Phosphate Glass by Microwave and Conventional Heating**,**	**Mandal A.K.** and Sen R,	12th European Society of Glass- ESG Conference (**ESG 2014**), Parma, Italy , 21-24 September 2014
30.	Microwave Preparation of Calcium-Borosilicate Glass for Nuclear Waste Immobilisation,	Mandal A.K., Mandal S., Sen S., Sen R.	23rd International Congress on Glass (ICG 2013), Prague, Czech Republic during July 01- 05, 2013.
31.	"Self Stirring Effect in Glass Melted Using Microwave Radiation", **(BEST POSTER).**	**Ashis Kumar Mandal** and Ranjan Sen;	National Symposium on Materials and Processing-2012 (**MAP-2012**); BARC, Anushaktinagar Mumbai- 400 094 during October 10-12, 2012.
32.	Homogeneous Barium-boro-silicate glass melted by	**Ashis Kr Mandal**, D.	"The Second Global Congress on Microwave Energy Applications

	microwave radiation,	Agarwal, R. Sen	(2GCMEA 2012)". **2GCMEA 2012**; Long Beach, California, USA; July 23-27, 2012
33.	**"**Microwave Melting of Glass: A Prospective Green Processing Technology**"**,	**A.K. Mandal***, A. Dharini and R Sen	International Conference on Green Technology, SASTRA University, Thanjavur, Tamil Nadu, July 26-27, 2013.
34.	Preparation of Phosphate glass by microwave radiation: an energy efficient method	**Ashis K. Mandal**, Kaushik Biswas, K. Annapurna and Ranjan Sen	International Conference on Specialty Glass & Optical Fiber: Materials, Technology & Devices (**ICGF-2011**), held at CGCRI, Kolkata (India) during August 4-6, 2011 .
35.	"Energy Efficient Melting of Borosilicate Glass Using Microwave Radiation"	**Mandal A. K.*,** Mondal S. and Sen R.	A National Seminar on Traditional Knowledge and Practices for Sustainable Development **(TKPSD 2013)** organized at CSIR-Institute of Minerals and Materials Technology, Bhubaneswar during on April 15, 2013.
36.	'Iron impurity in Nd3+ doped phosphate laser glasses – influence on spectroscopic performance (poster)	Atul D. Sontakke, Kaushik Biswas, **Ashis K. Mandal**, K. Annapurna	DAE BRNS National Laser Symposium (NLS -20) held at Anna University , Chennai (India) during January 9-12, 2012
37.	Optical Probing and Host Dependent luminescence of Europium Doped Transparent Glass-Ceramics Containing Fluoride Nano-Crystals,	K. Biswas, A. D. Sontakke, **A. K. Mandal**, R. Sen, K. Annapurna,	International Conference on Specialty Glass & Optical Fiber: Materials, Technology & Devices (ICGF-2011), held at CGCRI, Kolkata (India) during August 4-6, 2011.
38.	Glasses for High Power Lasers	A S Joshi, R Sen, S Chatterjee, K Annapurna, B Karmakar, **A K Mandal**, R Pareek, and M P Kamath,	International Conference on Specialty Glass & Optical Fiber: Materials, Technology & Devices (ICGF-2011), held at CGCRI, Kolkata (India) during August 4-6, 2011.
39.	'Dependence of luminescence properties in Europium doped BaF_2 and $BaYF_5$ nanocrystalline glass ceramic system',	*K. Biswas, A. D. Sontakke, **A. K. Mandal**, K. Annapurna,*	*International conference on fundamentals and applications of nano-science and technology (ICFANT) held at Jadavpur University (India) during 9 – 11 December 2010.*
40.	Host sensitive energy transfer of $Nd^{3+} \rightarrow Yb^{3+}$ in oxy-fluoride glass and glass ceramics containing $NaYF_4$	Atul D. Sontakke, Kaushik Biswas, **Ashis K.**	*3rd National Symposium for Materials Research Scholars (MR – 10), IIT Bombay during 07-08 May 2010.*

	nano-crystals,	**Mandal**, K. Annapurna*,	
41.	Effect of local environment on photoluminescence properties of Eu doped transparent glass-ceramics containing fluoride nano-crystals' ,	***A. K. Mandal**, K. Biswas, A. D. Sontakke, K. Annapurna*	*International workshop and symposium on the synthesis and characterization of Glass/Glass-ceramics(IWSSCGGC-2010) held at C-MET, Pune (India) during 7 – 10 July 2010.*
42.	Structural and luminescence properties of nanocrystalline Eu:$NaYF_4$ containing transparent oxyfluoride glass ceramics	Atul D. Sontakke, **Ashis Mandal**, Kaushik Biswas and K. Annapurna	*National Seminar On Advanced Applications Of Glasses, NSAAG-2010, VNIT Nagpur (22-23 March 2010)*
43.	'Energy transfer based eye safe infra-red luminescence from Nd^{3+}-Yb^{3+}-Er^{3+} triple ion doped metaphosphate glasses' **(BEST POSTER)**	*A. D. Sontakke, K.Biswas, **A. K. Mandal**, K. Annapurna*	*International Conference on Advanced Functional Materials (ICAFM-09), NIIST, Trivandrum, Kerala (India) during 9 – 10 Dec 2009.*

Awards/ Recognition:

1. **CSIR-CGCRI FOUNDATION DAY AWARD 2022 (FOR BEST TECHNOLOGY/PATENT FILLED)** "**A method for safe disposal of arsenic rich sludge obtained from treatment of contaminated ground water and its utilisation in developing heat protective glass";** inventors: Dr. Ashis Kumar Mandal and Dr. Sourja Ghosh, 26th August 2022, 72nd CSIR-CGCRI Foundation Day.
2. **Deokaran Award 2020** (for the best paper published on "Glass" in during 2016, 2017, 2018 and 2019 Awarded by INDIAN CERAMIC SOCIETY) [A Comparative Property Investigation of Lithium Phosphate Glass Melted in Microwave and Conventional Heating, Avik Halder, Biswajit Mandal, Sourindra Mahanty, Ranjan Sen and Ashis Kumar Mandal, Bulletin of Materials Science, 40, 5 (2017) 999–1006**;** DOI 10.1007/s12034-017-1437-6]

3. ***IconSWM 2019 Excellence Award:*** Toxic elements in waste: Potential resources for color glass , Ashis Kumar Mandal, 9th IconSWM - CE 2019: 9th International Conference on Sustainable Waste Management towards Circular Economy, KIT(DU), Bhubaneswar, Odisha, India; November 27-30, 2019.

4. **Best Poster Award:** Received Poster award for the poster entitled "Self Stirring Effect in Glass Melted Using Microwave Radiation", **Ashis Kumar Mandal** and Ranjan Sen; presented at National Symposium on Materials and Processing-2012 (MAP-2012) held at Bhabha Atomic Research Centre, Mumbai during October 10-12, 2012.

5. **Best Poster Award:** The poster entitled 'Energy transfer based eye safe infra-red luminescence from Nd^{3+}-Yb^{3+}-Er^{3+} triple ion doped metaphosphate glasses' *A. D. Sontakke, K.Biswas,* ***A. K. Mandal****, K. Annapurna,* received first prize for the best poster presented at ***International Conference on Advanced Functional Materials (ICAFM-09)*** held at NIIST, Trivandrum, Kerala (India) during 9 – 10 Dec 2009.

6. ***IconSWM 2016 Excellent Paper Award:*** **Toxic Metal Removal Using Biosorption Process and Inertization of Generated Hazardous Metal Laden Biosorbent,** L. Ramrakhiani, A. Halder, A.K. Mandal, S. Majundar, S. Ghosh, 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.

Invited Talk

SL No	Title of talk and author	Name of conference/organizer	Date
1.	Microwave heating: An innovative technique to develop heat absorbing properties in glass under air atmosphere". Ashis Kumar Mandal (Invited Talk/Planary talk)	National Symposium on Innovative Technology & Management for Sustainable Growth will be Organized Jointly by Faculty of Engineering & Technology, Jadavpur University, Kolkata 700 032 and Vivekananda Institute of Environment & Management, Kolkata 700 091	16- 17 January 2023.
2.	Waste as sources of raw material in glass making, Biplab Das, Sourja Ghosh, Swachchha Majumdar and Ashis Kumar Mandal*	5th International Conference (Online) on "Waste Management Technology, Trend & Developments, MatCorr, New Delhi, India.	28th January 2022
3.	Waste: Potential resources for glass article preparation , Ashis Kumar Mandal,	Waste Utilisation and Product Development (Webninar)	April 30, 2020
4.	"Microwave heating : an alternate process of glass melting", Ranjan Sen and Ashis Kumar Mandal,	24th International Congress on Glass (ICG 2016), Shanghai International Convention Center (SHICC) , **China**,	April 7th to 11th, 2016.
5.	Toxic Waste: A potential resource in color glass making, Ashis Kumar Mandal	"Indo-German Workshop on waste to wealth" at CSIR AMPRI, Bhopal	25-26 February 2019.