

DR. TANMOY DAS



a) Brief Personal Introduction : Born in Naihati, West Bengal and brought up in Burdwan town, education was in Burdwan. Research career was followed in Jadavpur, Kolkata.

b) Present Designation including date of effect : Assistant Professor
Effect from 07.11.2005

c) Academic Qualifications : M.Sc. [Chemistry, B.U.], Ph.D. (Sc., J.U.)

d) Areas of Research Interest : Glass, Water quality, Oxynitride glass, Diffusion, Radiotracer technique, Radioactive waste glass etc.

e) Awards & Achievements : (i) Awardee of National Scholarship.
(ii) AIR INDIA Statesman BOLT Teacher Award winner at the District Level & Runner Up at the State Level.



(iii) Work on diffusion in oxynitride glass was first of its kind.

(iv) Work on Mossbauer spectra in oxynitride glass was first of its kind.

f) Special Chair held, if any : Not Applicable.

g) Research Projects : UGC Minor Research Project – Rs. 7.5 lacs

h) Research Scholars Guided : a) Patit Paban Malik, Asanosl B.B. College, Burdwan.
b) Goutam Hazra, Kalna College, Burdwan.
c) Nilam Singh, Vivekananda Mahavidyalaya, Burdwan
d) Abhijit Ghosh, Full Timer, Dept. of Chemistry, B.U.

i) List of Publication of Books : 1 Book on Netaji Subhas Chandra Basu
(with ISBN)

j) List of Publication of Papers : [Click here](#) for List of Publication
Invited talks : 04
Workshop conducted : 01

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List of Publication

1. "Diffusion coefficients of iron and sodium in yttrium oxynitride glasses", **T. Das**, A. S. Sanyal & J. Mukerji, Physics and Chemistry of Glasses, **32** (1991), p.180-182.
2. "Diffusion measurements of Iron and Sodium in the Glasses of the system Y-Si-Al-O-N, **T. Das**, A. S. Sanyal and J. Mukerji, Annual session, Indian Ceramic Society, Kolkata, Technical session-IA, Basic Science, 1992.
3. "Development of Dense Ceramics for High Temperature Application as Bearing and Wear Parts in Aeronautical Application" (Tribological properties of Advanced Ceramics), J. Mukerji, P. K. Das, S. Bandopadhyaya, **T. Das** & A. S. Sanyal, Central Glass & Ceramic Research Institute with the participation of M.F.WANI & Braham Prakas, Indian institute of technology, Delhi, Report No. 3 on the project 504, Aeronautical Research and Development Board, Min. of Defence, December, 1990, p.1 –35.
4. "Effect of Nitrogen on the Diffusion Coefficients of Sodium and Iron in Yttrium Oxynitride Glasses", **T. Das**, A. S. Sanyal & J. Mukerji, Bol.Soc.Esp.Ceram.Vid.: 31-C(1992)2,XVI International Congress on Glass, Madrid, 1992, p. 409-414.
5. "Comparison of the Diffusion Behaviours of Na and Fe in Oxide and Nitrogen Glasses as measured by Radiotracer Technique, **Tanmay Das**, Amiya S. Sanyal, Joydeb Mukerji, Proc. Nuclear and Radiochemistry Symp, Andhra University, December 21-24,1992.P –331-333.
6. "Diffusion of ^{22}Na and ^{59}Fe in Mg-Si-Al-O-N- glasses, **T. Das**, A. S. Sanyal and J. Mukerji, Physics and Chemistry of glasses, Vol.35, No.5, October, 1994, p. 198-201.
7. "Comparison of diffusion behaviors of sodium and iron in oxide and oxynitride glass-pair in yttriumaluminosilicate system, **T. Das**, A. S. Sanyal and J. Mukerji, Physics and Chemistry of glasses, Vol .36, No.4, August, 1995, p. 191-193.
8. "Preparation of ALON Powder and its Sintering, A.S. Sanyal, K. Mukherjee, **T. Das** and J. Mukerji, Second report, Defence Research and Development Laboratory, Min. of Defence, Project on development of ALON Dome for Missile, November, 1993, p 1-6.
9. "Preparation of ALON powder, its sintering and transmission measurement of sintered product, A. S. Sanyal, K. Mukherjee, K. K. Dhargupta, S. Bandopadhyay, **T. Das** and J. Mukerji, Final report on the project ALON, February, 1996, p 1-31.
10. "Oxynitride glasses – an Overview", **T. Das**, Bull. Mater. Sci., Vol.23, No.6, 2000, p. 499-507.

11. "Diffusion of sodium and iron in yttrium and magnesium containing oxynitride glasses" – A comparative and mechanistic study, **Tanmay Das**, Res. J. Chem. Environ. Vol.10, No.4, December 2006, p. 63-71.
12. "Water - its qualitative and quantitative acceptability", **T. Das**, p. 40, vol.5, no.1, ENVIRONICA, November 2007.
13. "Role of Iron Diffusion in Oxynitride Glass – a Mossbauer and EPR Study", **Tanmay Das** and Partha Mitra, p. 1, Vol. 69, no.2, Trans. Ind. Ceram. Soc, 2010.
14. Removal of Arsenic from water – Exploration of Different Approaches, **Tanmay Das**, Environmental Science (2008).
15. Role of Iron Diffusion in Oxynitride Glass – A Mossbauer and EPR study, **Tanmay Das** and Partha Mitra, Pl. Vol. 69, No. 2, Trans. Ind. Ceram. Soc., 2010.
16. Effect of Different Modifiers on Melting Points and pH under Leaching in Nuclear Waste Glasses in Borosilicate and Phosphate Systems, Pait P. Malik, Partha Mitra and **Tanmoy Das**, Material Science Research India, Vol. 9(1), 105-109 (2012).
17. Role of different modifiers on melting points, pH under leaching and leaching rates in nuclear waste glasses, P.P. Malik, G. Hazra, P. Mitra and **T. Das**, Progress Theoretical Applied Physics, 1, 01-10 (2012).
18. Incorporation of Nuclear Wastes in LIP and Uranium containing LIP Glasses, A. Ghosh, G. Hazra, P. Mitra and **T. Das**, Oriental Journal of Chemistry, Vol. 30, No. 1, March 2014.
19. Preparation and Studies of Uranium Doped Lead-Iron-Phosphate Simulated Nuclear Waste Glasses, International Journal of Advanced Research in Engineering and Applied Sc., G.Hazra. P.Mitra and **T.Das**
20. Colorimetric and fluorescence recognition of tryptophan and histidine using phthalaldehyde based probe: Experimental, computational, imaging and fish tissue analysis, A.Ghosh, T.Das, D.Das et al. **RSC Adv.**, 2014, **DOI:** 10.1039/C4RA10158H
21. Water Quality of Bardhaman Circle, West Bengal, Tanmoy Das, Periodic Research. Vol III, 1. August, 2014
22. Effect of different modifiers on melting points, pH under leaching and leaching rates in simulated nuclear waste glasses in borosilicate and phosphate systems, G.Hazra, P.Mitra and T.Das, The Holistic Approach to Environment, Vol. 4, No. 4 (2014)
23. "Development of pH Dependent Solid Phase Spectrometric (SPS) Determination of Ni(II) with Pyridine 2,6 .Ddimethanol as an Analytical Reagent', , Md. F.Rahman, A.Chakroborty and T.Das
24. IOSR Journal of Applied Chemistry (IOSR-JAC), Vol 8. Vol.1 (Jan 2015), pp14-20

25. The Journey of Electron to Mars, Global Journal of Physics, Tanmoy Das, Vol 2, No.2, 2015
26. Electron Ki Mongal Yatra, Tanmoy Das, Remarking, Vol2, Issue June-2011
27. Extractive Determination of Co(II) and Ni(II) by *N,N'*-bis(5-(4-nitrophenyl)-2-hydroxybenzylideneamino)ethylenediamine (NDHBDED) impregnated with alumina by pH dependent SPS, Md. Faridur Rahman, B.Chakraborty and T.Das, *Oriental Journal of Chemistry* Vol 32, No3 June2016 pp 1531-1538
28. . Towards Safe Water from Water Resources Point of View in South Bengal Districts of W.B. BARDHAMAN Circle, W.B. and a Multidisciplinary Approach to Mitigation of As, T.Das, *International Journal of Multidisciplinary Research and Information*, Vol-I, Issue – X, pp, xxx, 2016
29. M F Rahman, A. Chakraborty, S. N. Bandyopadhyay², Tanmoy Das, ‘Solid Phase Extraction of Cu (II) by Pyridine-2, 6-dimethanol modified with alumina for its pH dependent determination by FAAS.’ *Golden Research Thoughts (GRT)*, Vol.3, Issue: 9, pp.1-6, **March, 2014.**
30. M. F. Rahman, A. Chakraborty and T. Das, ‘Spectrophotometric Application for pH Dependent Determination of Vanadium (IV) Complexed with Thiophene-2-Carboxaldehyde Thiosemicarbazone by SPS Method.’ *IOSR Journal of Applied Chemistry (JAC)*, Vol.7, Issue:10, Ver.1, pp.54-59, **Oct., 2014.**
31. M. F. Rahman, A. Chakraborty and T. Das, ‘Development of pH dependent Solid Phase Spectrophotometric (SPS) Determination of Ni (II) with Pyridine-2, 6-dimethanol as an Analytical Reagent.’ *IOSR Journal of Applied Chemistry (JAC)*, Vol.8, Issue:I, pp.14-20, **Jan., 2015.**
32. .Md. Faridur Rahman, Aniruddha Chakraborty and Tanmoy Das, ‘Synthesis, Spectral Characterization, Magnetic Properties and Biological Activity Studies of Mn (II), Co (II), Cu (II) and Ni (II) Complexes of Azo Dye Schiff Base Ligand.’ *American Journal of Pharmtech Research (APJTR)*, 5(2), pp.496-506, **April, 2015.**
33. Md. Faridur Rahman, Aniruddha Chakraborty and Tanmoy Das, ‘An Extractive pH dependent Solid Phase Spectrophotometric (SPS) Determination of Mn (II) and Cu (II) by using *N, N'*-bis(5-(4-nitrophenyl)diazenyl)-2-hydroxybenzylideneamino)ethylenediamine (NDHBDED) modified with alumina.’ *Material Science Research India*, Vol.12, No.2, pp.95-103, **Dec., 2015.**
34. Md. Faridur Rahman, Aniruddha Chakraborty and Tanmoy Das, ‘Spectrophotometric Determination of Arsenic in Water Samples by Thiophene-2-Carboxaldehyde Thiosemicarbazone impregnated with alumina.’ *Oriental Journal of Chemistry*, Vol.31, No.4, pp.2401-2408, **Dec., 2015.**

35. Md. Faridur Rahman, Biswajit Chakraborty and Tanmoy Das, 'Extractive Determination of Co (II) and Ni (II) by N, N'-bis(5-(4-nitrophenyl)diazanyl)-2-hydroxybenzylideneamino)ethylenediimine (NDHBDED) impregnated with alumina by pH dependent SPS.' *Oriental Journal of Chemistry*, Vol.32, No.3, pp.1531-1538, **June, 2016.**

National Conference :

1. Diffusion measurements of Iron and Sodium in Glasses of the system Y-Si-Al-()-N, **T. Das**, A.S. Sanyal and J. Mukerji, Annual Session. Indian Ceramic Society. Kolkata, Technical session-IA, Basic science, 1992.
2. Comparison of the Diffusion Behaviours of Na and Fe in oxide and Nitrogen glasses as measured by Radiotracer Technique. **Tanmay Das**. Amiya. S. Sanyal and Joydeb Mukerji. Proc. Nuclear and Radiochemistry Symp. Andhra University. December 21-24. 1992.
3. Oxynitride Glasses, **T. Das**. Poster Session, Annual General Meeting. Materials Research Society of India, Science City. Kolkata 31st January to 2nd February. 2001
4. Leaching characteristics of nuclear waste glasses, **T. Das** and P.P. Malik. Contributory Paper-6. pg 57, Proc. Symp. On "Acharya Prafulla Chandra Ray and Chemistry Today (2007)", August 02-03. 2007. Indian Chemical Society and Dept. of Chemistry, C.U.
5. Effect of Different Modifiers on Melting Points and pH under Leaching in Nuclear waste Glasses in Borosilicate and Phosphate Systems". Patit P. Malik. Partha Mitra. **Tanmay Das**. UGC-Sponsored national Seminar. 25-27 April. 2008, B.U.

International Conference:

1. Effect of Nitrogen on the Diffusion Coefficients of Sodium and Iron in Yttrium Oxynitride Glasses, **T. Das**, A.S.Sanyal and J. Mukerji, XVI International Congress on Glass, Madrid, 1992
2. Role of Lead as modifier as on the Properties of Lead Iron Phosphate Glasses , Goutam Hazra, Partha Mitra and **Tanmay Das** , Proc NUCAR-2011, February 22-26. Visakhapatnam (India), 449.*
3. Effect of different Modifiers on Melting Points and pH under Leaching and Leaching Rates in Nuclear waste glasses in Borosilicate and Phosphate Systems. Patit Paban Malik, Partha Mitra and **Tanmoy Das**. 211-213, MS-27. Proc. Int. Conf on Laser, Materials Science & Communication, December 07-09. 2011. ISBN 93-80813-14-7.

4. The properties of Lead-Iron Phosphate and Borosilicate Simulated nuclear waste glasses. G. Hazra, P. Mitra, **T. Das**, P.P. Malik. DAE-BRNS 5th Symp. on Nuclear Analytical Chemistry (NAC-V), Jan. 20-24, 2014, BARC, Mumbai, India. *
5. Controlling of hazardous and Toxic radioisotope of Atomic Reactor on Glass Material, G.Hazra,A.Ghosh, P.Mitra and T.Das, International Conference on Mother Earth: save to Achieve a sustainable Future for All, ICME 2014, December 10 to12, 2014
6. Leach Resisting Activity of Ce(IV) Modifier into Lead-Iron Phosphate Nuclear Waste Glasses, Proc. NUCAR 2017, 13th DAE-BRNS- Nuclear and Radiochemistry Symp, T.Das, P.Mitra and G.Hazra, Bhubaneswar 6 to 10th February, 2017.

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