

**Papers published in Science Citation Index journals
(2003-2004)**

1. Effect of sillimanite beach sand composition on mullitisation and properties of $\text{Al}_2\text{O}_3\text{-SiO}_2$ system
H S Tripathi, S K Das, B Mukherjee, A Ghosh and G Banerjee
Bull Mater Sci 26(2) 217-220 (2003)
2. Reaction sintering of alumina-rich magnesium alumina spinel
A Ghosh and R Sarkar
Amer Ceram Soc Bull 82 (12) 9501-9506 (2003)
3. Effect of synthetic aggregate on alumina castables
S K Das, P K Mandal and R Sarkar
Amer Ceram Soc Bull 82 (10) 9101-9106 (2003)
4. Reaction sintering of magnesium aluminates – Effect of MgSO_4
R Sarkar, T K Pal and G Banerjee
Amer Ceram Soc Bull 82 (8) 9601-9607(2003)
5. Evidence for 2-stage mullite formation during thermal decomposition of kaolinite
A Chakraborty, S Das & S Gupta
Brit Ceram Trans 102 (4) 153-157 (2003)
6. Synthesis and densification of magnesium aluminate spinel-effect of MgO reactivity
H S Tripathi, B Mukherjee, S Das, M K Haldar, S K Das & A Ghosh
Ceram Int 29(8) 915-918 (2003)
7. Reaction sintered magnesia rich magnesium aluminate spinel : Effect of alumina reactivity
R Sarkar, A Ghosh and S K Das
Ceram Int 29 (4) 407-411 (2003)
8. Effect of Fe_2O_3 on the densification and properties of lime
A Ghosh, T K Bhattacharyya, B Mukherjee, H S Tripathi and S K Das
Ceram-Silikaty 47 (2)45-50 (2003)
9. Solid state sintering of lime in presence of La_2O_3 and CeO_2
T K Bhattacharyya, A Ghosh, H S Tripathi and S K Das
Bull Mater Sci 26 (7) 703-706 (2003)

10. Effect of magnesia addition on the properties of Zirconia-mullite composites derived from sillimanite beach sand
M K Halder
Ceram Int 29 (5) 573-581 (2003)
11. Beach sand sillimanite based zirconia-mullite composites
M K Halder, S K Das and A C Das
Amer Ceram Soc Bull 83(3) 9101-9105(2004)
12. Inorganic-organic hybrid coatings on polycarbonate : Spectroscopic studies on the simultaneous polymerisations of methacrylate and silica network
S K Medda , D Kundu and G De
J Non-Cryst Solids 318(1-2) 149-156 (2003)
13. Near-net-shape fibre reinforced ceramic matrix composites by sol infiltration technique
A Dey, M Chatterjee, M K Naskar and K Basu
Mater Lett 57(19) 2919-2926 (2003)
14. Study of refractive index and physical thickness of porous silica films with aging in hydrated ammonia and air
S Das, S Roy, A Patra and P K Biswas
Mater Lett 57 (15) 2320-2325 (2003)
15. Effects of tin on IR reflectivity, thermal emissivity, Hall mobility and plasma wavelength of sol-gel indium tin oxide films on glass
P K Biswas, A De, N C Pramanik, P K Chakraborty, K Ortner ,
V Hock and S Korder
Mater Lett 57(15) 2326-2332 (2003)
16. Novel technique for the synthesis of lithium aluminate (LiAlO_2) powders from water-based sols
M Chatterjee and M K Naskar
J Mater Sci Lett 22(24) 1747-1749 (2003)
17. UV absorbing transparent sol-gel derived coatings on glass
D Kundu and R Mukherjee
J Mater Sci Lett 22 (23) 1647-1649 (2003)

18. Two-dimensional Au and Au-Cu alloy nanocrystals with orientation in (111) plane embedded in glassy silica films
G De and C N R Rao
J Phys Chem, Series B 107 (49) 13597-13600 (2003)
19. Sol-emulsion-gel synthesis of alumina-zirconia composite microspheres
M Chatterjee, M K Naskar and D Ganguli
J Sol-Gel Sci Technol 28(2) 217-225 (2003)
20. Optical and electrochromic properties of sol-gel WO₃ films on conducting glass
P K Biswas, N C Pramanik, M K Mahapatra, D Ganguli and J Livage
Mater Lett 57(28) 4429-4432 (2003)
21. Study of sol-gel derived high tin content indium tin oxide (ITO) films on silica-coated soda lime silica glass
P K Biswas, A De, K Ortner and S Korder
Mater Lett, 58(10) 1540-1545(2004)
22. Sol-gel electrochromic WO₃ coatings on glass
A Patra, K Auddy, D Ganguli, J Livage and P K Biswas
Mater Lett 58 (6) 1059-1063 (2004)
23. Effects of processing parameters on the fabrication of near-net-shape fibre reinforced oxide ceramic-matrix composites via sol-gel route
M K Naskar, M Chatterjee, A Dey and K Basu
Ceram Int 30(2) 257-265 (2004)
24. Influence of nanoenvironment on luminescence lifetime of Er³⁺-activated ZrO₂ nanocrystals
G S Maciel and A Patra
J Opt Soc Amer B 21(2-3) 681-684 (2004)
25. Nonlinear optical properties of copper and silver nanoclusters in SiO₂ sol-gel films
P P Kiran, G De and D N Rao
IEE Proc Circuits Devices Syst 150 (6) 559-562 (2003)
26. Solvation dynamics in dimyristoyl-phosphatidylcholine entrapped inside a sol-gel matrix
A Halder, S Sen, A Das Burman, A Patra and K Bhattacharya
J Phys Chem Bull 108 (7) 2309-2312
27. Study of luminescence properties of Er³⁺-ions in new tellurite glasses
R El-Mallawany, A Patra, C S Friend, R Kapoor and P N Prasad
Opt Mater 26(3) 267-270 (2004)

28. Studies of dispersive transport of holes in poly (N-vinylcarbazole) Q-Cds hybrid nanocomposite
K Roy Choudhury, M Samoc and A Patra and P N Prasad
J Phys Chem Bull 108(5) 1556-1562 (2004)
29. Er³⁺-doped BaTiO₃ nanocrystals for nanothermometry : Influence of nanoenvironment on the sensitivity of a fluorescence based temperature sensor
M A R C Alencar, G S Maciel & Cid B de Aruajo and A Patra
Appl Phys Lett 84 4753 (2004)
30. Effect of crystal nature on upconversion luminescence in Er³⁺ : ZrO₂ nanocrystals
A Patra, C S Friend, R Kapoor and P N Prasad
Appl Phys Lett 83(2) 284-286 (2003)
31. Fluorescence upconversion properties of Er³⁺-doped TiO₂ and BaTiO₃ nanocrystallites
A Patra, C S Friend, R Kapoor and P N Prasad
Chem Mater 15 3650-3655 (2003)
32. Two-photon-excited absolute emission cross-sectional measurements calibrated with a luminance meter
R Kapoor, C S Friend and A Patra
J Opt Soc Am B 20 (7) 1550-1554 (2003)
33. Effect of crystal structure and concentration on luminescence in Er³⁺-ZrO₂ nanocrystals
A Patra
Chem Phys Lett 387 (1-3) 35-39 (2004)
34. Glass formation in K₂SO₄-CaO-P₂O₅ system
K Ghosh, G K Dasmohapatra and N S Biswas
Phys Chem Glass 44 (4) 313-318 (2003)
35. Blue emission spectrum of Ce³⁺-ZnO-B₂O₃-SiO₂ optical glass
K Annapurna, R N Dwivedi, P Kundu, S Buddhudu
Mater Lett 58 (5) 787-789 (2004)
36. NIR emission and up-conversion luminescence spectra of Nd³⁺-ZnO-SiO₂-B₂O₃ glass
K Annapurna, R N Dwivedi, P Kundu, S Buddhudu
Mater Lett 57(13-14) 2095-2098 (2003)

37. Emission properties of Mn^{2+} - $\text{ZnO-B}_2\text{O}_3\text{-SiO}_2$ glass
K Annapurna, R N Dwivedi, P Kundu and S Buddhudu
J Mater Sci Lett 22 (12) 873-875 (2003)
38. Comparative atomic force and scanning electron microscopic studies disclosing nanocrystallinity in cordierite glass-ceramics: Examples of surface modification
B Karmakar, G Heide, G H Frischat
Indian J Phys 78A (1) 47-51 (2004)
39. Novel method of developing oxide coating on aluminium using microwave heating
S Das, A K Mukhopadhyay, S Datta & D Basu
J Mat Sci Lett 22 (22) 1635-1637 (2003)
40. Studies of transport properties of MgB_2 superconductor
A Poddar, B Bandopadhyay, P Mandal, D Bhattacharya,
P Chaudhury, U Sinha and B Ghosh
Physica C . Superconductivity 390 (3) 191-196 (2003)
41. The effect of palladium incorporation on methane sensitivity of antimony doped tin dioxide
K Chatterjee, S Chatterjee, A Banerjee, M Raut, N C Pal, A Sen, H S Maiti
Mater Chem Phys 81 (1) 33-38 (2003)
42. Effect of phosphorous addition on the sintering and dielectric properties of $\text{Pb (ZrO}_{.52}\text{TiO}_{.48})\text{O}_3$
A K Saha, D Kumar, O Prakash, A Sen and H S Maiti
Mater Res Bull 38 (7) 1165-1174 (2003)
43. A wet chemical process to form palladium oxide sensitizer layer on thin film zinc oxide based LPG sensor
P Mitra and H S Maiti
Sensors and Actuators B: Chemical 97(1) 49-58 (2004)
44. Development of rare-earth doped fibres for amplifiers in WDM system
S K Bhadra, R Sen, M Pal, M C Paul, M K Naskar, S Chatterjee, M Chatterjee and K Dasgupta
IEE Proc Circuits Devices Syst 150 (6) 480-485 (2003)

45. Microstructure and thermo-mechanical properties of a talc doped stoneware composition containing illitic clay
T K Mukhopadhyay, M Das, S Ghosh, S Chakrabarti & S Ghatak
Ceram Int 29 (5) 587-597 (2003)
46. Differences in densification behaviour of K-feldspar-containing and Na-Feldspar-containing porcelain bodies
S K Das and K Dana
Thermochim Acta 406 (1-2) 199-206 (2003)
47. Synthesis and characterization of in-situ grown magnetoelectric composites in the BaO-TiO-FeO-CoO system
S Majumder and G S Bhattacharya
Ceram Int 30 389-392 (2004)
48. Preliminary study on the effect of pH on thermal transformation of some diphasic Al₂O₃-SiO₂ gels
A K Chakraborty
J Sol-Gel Sci Technol 28 (1) 87-95 (2003)
49. Characterisation of monophasic and diphasic mullite precursors by solid state reaction study
A Chakraborty
Brit Ceram Trans 103(1) 33-36 (2004)
50. Perturbative expansion using a vibrational phonon basis for the Holstein model
J Chatterjee, A N Das & P Chaudhury
Solid State Commun 126(3) 113-118 (2003)
51. Transport and magnetic properties of Ru (Sr^{1-x}Ax (2) RCu₂O₈ (R = Gd, Eu) superconductor
A Hassen, P Mandal, J Hemberger, A Krimmel, P Chaudhury,
B P Ghosh and A Loid
Physica C. Superconductivity 398(3-4) 123-130 (2003)
52. Comparison between the microstructural evolutions of 2 modes of SHS of NIAL – Key to a common reaction mechanism
A Biswas, S K Roy
Acta Mater 52 (2) 257-270 (2004)
53. Effect of Sn doping on the structural and optical properties of sol-gel TiO₂ thin films
S Mohanty, S Roy and S Sen
J Cryst Growth 261 (1) 77-81 (2004)

54. Effect of controlling parameters on the reaction sequences of formation of nitrogen containing magnesium aluminate spinel from MgO, Al₂O₃ and AlN
S Bandopadhyay, G Rixecker, F Aldinger and H S Maiti
J Amer Ceram Soc 87(3) 480-482 (2004)

55. Effect of substitution of quartz by rice husk ash and silica fume on the properties of whiteware compositions
C S Prasad, K N Maiti and R Venugopal
Ceram Int , 29 (8) 907-914 (2004)