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Qualification: B. Tech (Ceramic Technology)
Designation: Scientist – C



Areas of interest:

Transparent Ceramics, Colloidal Processing, Slip and Gel Casting, Rheology, Characterization (Thermal, Mechanical and Optical), Hot Isostatic Pressing, Chemical Vapour Deposition

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List of Journal Publication

1. Fabrication of Transparent Spinel Honeycomb Structures by Methyl Cellulose based Thermal Gelation Processing
P. Biswas, K. Rajeswari, P. Ramavath, Roy Johnson, H. S. Maiti
Journal of American Ceramic Society (Accepted) (2013)
2. Extrusion processing of Dense $MgAl_2O_4$ Spinel Honeycombs with Low Relative Density
P. Biswas, K. Rajeswari, V. Mahendar and Roy Johnson
Ceramic International (In press) (2013)
3. Transparent Sub-micrometer Alumina from Lanthanum Oxide Doped Common Grade Alumina Powder
Papiya Biswas, Madugula Kiran Kumar, Kotikalapudi Rajeswari, Roy Johnson and Unnikrishnan Nair Saraswathy Hareesh
Ceramic International (In press) (2013)
4. Diametral Deformation Behaviour and Machinability of Methyl Cellulose Thermal Gel cast Processed Alumina Ceramics
P. Biswas, M. Swathi, P. Ramavath, K. Rajeswari, M. Buchi Suresh, Roy Johnson
Ceramic International, 38 (2012) 6115-6121.
5. Transparent Polycrystalline Ceramics: An Overview
R. Johnson, **P. Biswas**, P. Ramavath, R.S. Kumar and G. Padmanabham
Transaction of Indian Ceramic Society, 71 [2] (2012) 73-85.
6. Mechanical Properties of Transparent Polycrystalline Alumina Ceramics Processed Using an Environmentally Benign Thermal Gel Casting Process
G. Sundararajan, **P. Biswas** and N. Eswara Prasad
Experimental Mechanics, 53 (2012) 123-129

7. Colloidal Shaping of 8 mol% Ytria Stabilized Zirconia Electrolyte Honeycomb Structures by Microwave Assisted Thermal Gelation of Methyl Cellulose
K. Rajeswari, **P. Biswas**, M. B. Suresh, D. Das, U. S. Hareesh and R. Johnson
International Journal of Applied Ceramic Technology, (2012) 1-10 (DOI:10.1111/j.1744-7402.2012.02852.x).
8. Colloidal Shaping of Alumina Ceramics by Thermally Induced Gelation of Methylcellulose
Unnikrishnan Nair Saraswathy Hareesh, Rakesh Anantharaju, **Papiya Biswas**, Kotikalapudi Rajeswari, Roy Johnson
Journal of American Ceramic Society, 94 [3] (2011) 749–753
9. Effect of post CVD thermal treatments on crystallographic orientation, microstructure, mechanical and transmission Properties of ZnS Ceramics
P. Biswas, R. Senthil Kumar, P. Ramavath, V. Mahendar, G. V. N. Rao, U. S. Hareesh and R. Johnson
Journal of Alloys Compounds, 496 (2010) 273-277
10. Effect of Sphalerite to Wurtzite Crystallographic Transformation on Microstructure, Optical and Mechanical Properties of Zinc Sulphide Ceramics
P. Ramavath, **P. Biswas**, R. Senthil Kumar, V. Mahendar, G. V. N. Rao, U. S. Hareesh and R. Johnson
Ceramic International, 37 (2011) 1039-1046
11. Low Temperature In-situ Reaction Sintering of Zircon: Alumina Composites Trough Spark Plasma Sintering
M. C. Anjali, **P. Biswas**, D. Chakravarty, U. S. Hareesh, Y.S. Rao and R. Johnson
Science of Sintering, 44 (2012) 323-330.
12. Experimental Investigation on Flowability and compaction behavior of Spray granulated submicron Alumina Granules
Abhisek Choudhary, Pandu Ramavath, **Papiya Biswas**, Nukula Ravi and Roy Johnson
ISRN Ceramics (Accepted) (2013)
13. Thermally Induced Gelation of Alumina Shaping- Neutron Scattering and Rheological Measurements
Papiya Biswas, K. Rajeswari, S. Chaitanya, Roy Johnson, S.A. Prabhudesai, V.K. Sharma, S. Mitra and R. Mukhopadhyay
Open Journal of Inorganic Chemistry 3 (2013) 48-54
14. Effect of Bauxite Addition on Densification and Mullitization Behaviour of West Bengal Clay
N S Raut, **P Biswas**, T K Bhattacharya and K Das
Bulletin of Material Science, 31 [7] (2008) 995–999
15. Optical properties and fracture behaviour of compaction and slip cast processed transparent polycrystalline spinel ceramics
Pandu Ramavath, **Papiya Biswas**, Kotikalapudi Rajeswari, Madireddy Buchi Suresh, Roy Johnson, Gadhe Padmanabham, Chandrashekhar Sadasiv Kumbhar, Tapas Kumar Chongdar, Nitin Madhusudan Gokhale
Ceramics International (2013)

List of Patents

1. Process of preparation of zinc sulphide free standing article by chemical vapour deposition.
R. Senthil Kumar, P. Ramavath, **P. Biswas**, U. S. Hareesh and R. Johnson
Indian patent IN2009005-I1
2. A novel process for producing IR transparent polycrystalline alumina articles and the articles so produced.
P. Biswas, K. Rajeswari, V. Mahender, P. Ramavath, A. Rajashekhar Reddy, R. Johnson, U. S. Hareesh
Application No.: 365/DEL/2012, Filing date: 08-02-2012

List of Award & Honors

1. IRMA Award from Indian Refractory Makers Association for proficiency in studies in ceramic sciences for the year of 2005-2006
2. 2nd best award for oral presentation in the Platinum Jubilee Annual Session of the Indian Ceramic Society in 2011
3. Technology Award 2012 from ARCI for the successful development of ZnS domes