

Complete list of publications

Publication list of Dr. Kausik Dana Aug 2016

- 1) Mostofa Shamim, Kausik Dana, Thermal decomposition of layered double hydroxides: Kinetic modeling and validation, *Thermochimica Acta*, Volume 632, 20 May 2016, Pages 64-71
- 2) Kinetic modelling of solid state magnesium aluminate spinel formation and its validation, Somnath Sinhamahapatra, Mostofa Shamim, Himansu Sekhar Tripathi, Arup Ghosh, Kausik Dana *Ceramics International*, Volume 42, Issue 7, 15 May 2016, Pages 9204-9213
- 3) Kausik Dana, S.Mukhopdhyay, Thermal and thermomechanical characteristics of monolithic refractory composite matrix containing surface-modified graphite, 2016, *Ceramics International*, Volume 42 (5) pp. 6015-6024
- 4) Madhuchhanda Sarkar, Kausik Dana, Sukhen Das, Microstructural and phase evolution in metakaolin geopolymers with different activators and added aluminosilicate fillers, *J. Mol. Str.* 1098 (2015) pp 110–118
- 5) Mostofa Shamim, Tapas Kumar Mukhopadhyay, Kausik Dana, Kinetic pathway for thermal exfoliation of pyrophyllite, *Appl.Clay,Sci* 114 (2015) pp 40-47
- 6) Sinhamahapatra, S.; Dana, K.; Ghosh, A.; Reddy, V. P.; Tripathi, H. S., Dynamic thermal study to rationalise the role of titania in reaction sintering of magnesia-alumina system. *Ceramics International* 2014, 41, (1), 1073-1078.
- 7) Shamim, M.; Molla, A. R.; Mukhopadhyay, T. K.; Dana, K., Non-Isothermal Kinetic Evaluation of Pyrophyllite Dehydroxylation. *Transactions of the Indian Ceramic Society* 2014, 73, (2), 181-186.
- 8) Nath, M.; Dana, K.; Gupta, S.; Tripathi, H. S., Hot corrosion behavior of slip-cast alumina-chrome refractory crucible against molten glass. *Materials and Corrosion-Werkstoffe Und Korrosion* 2014, 65, (7), 742-747.
- 9) Kapusetti, G.; Misra, N.; Singh, V.; Srivastava, S.; Roy, P.; Dana, K.; Maiti, P., Bone cement based nanohybrid as a super biomaterial for bone healing. *Journal of Materials Chemistry B* 2014, 2, (25), 3984-3997.
- 10) Dana, K.; Sinhamahapatra, S.; Tripathi, H. S.; Ghosh, A., Refractories of Alumina-Silica System. *Transactions of the Indian Ceramic Society* 2014, 73, (1), 1-13.
- 11) Mondal, D.; Mollick, M. M. R.; Bhowmick, B.; Maity, D.; Bain, M. K.; Rana, D.; Mukhopadhyay, A.; Dana, K.; Chattopadhyay, D., Effect of poly(vinyl pyrrolidone) on the morphology and physical properties of poly(vinyl alcohol)/sodium montmorillonite nanocomposite films. *Progress in Natural Science-Materials International* 2013, 23, (6), 579-587.
- 12) Chakraborty, C.; Sukul, P. K.; Dana, K.; Malik, S., Suppression of Keto Defects and Thermal Stabilities of Polyfluorene-Kaolinite Clay Nanocomposites. *Industrial & Engineering Chemistry Research* 2013, 52, (20), 6722-6730.
- 13) Hayrapetyan, S.; Kellarakis, A.; Estevez, L.; Lin, Q.; Dana, K.; Chung, Y. L.; Giannelis, E. P., Non-toxic poly(ethylene terephthalate)/clay nanocomposites with enhanced barrier properties. *Polymer* 2012, 53, (2), 422-426.
- 14) Ganguly, S.; Dana, K.; Parya, T. K.; Mukhopadhyay, T. K.; Ghatak, S., Organic-Inorganic Hybrids Prepared from Alkyl Phosphonium Salts Intercalated Montmorillonites. *Ceramics-Silikaty* 2012, 56, (4), 306-313.

- 15) Chakraborty, C.; Dana, K.; Malik, S., Immobilization of poly(fluorene) within clay nanocomposite: An easy way to control keto defect. *Journal Of Colloid And Interface Science* 2012, 368, 172-180.
- 16) Chakraborty, C.; Dana, K.; Malik, S., Lamination of Cationic Perylene in Montmorillonite Nano-Gallery: Induced J-Aggregated Nanostructure with Enhanced Photophysical and Thermogravimetric Aspect. *Journal Of Physical Chemistry C* 2012, 116, (39), 21116-21123.
- 17) Sarkar, M.; Dana, K.; Mukhopadhyay, T. K.; Ghatak, S., Studies on the Suitability of Iron-rich Indian Bentonites for Synthesis of Organoclays by Intercalation. *Transactions of the Indian Ceramic Society* 2011, 70, (1), 23-28.
- 18) Sarkar, M.; Dana, K.; Ghatak, S., Evolution of molecular structure and conformation of n-alkylammonium intercalated iron rich bentonites. *Journal of Molecular Structure* 2011, 1005, (1-3), 161-166.
- 19) Mukhopadhyay, T. K.; Dana, K.; Ghatak, S., Pyrophyllite - a potential material for application in tri-axial porcelain systems. *Industrial Ceramics* 2011, 31, (3), 165-173.
- 20) Ganguly, S.; Dana, K.; Mukhopadhyay, T. K.; Parya, T. K.; Ghatak, S., Organophilic Nano Clay: A Comprehensive Review. *Transactions of the Indian Ceramic Society* 2011, 70, (4), 189-206.
- 21) Ganguly, S.; Dana, K.; Mukhopadhyay, T. K.; Parya, T. K.; Ghatak, S., Characterization of 1,3-dialkyl imidazolium intercalated montmorillonites. *Journal of the Indian Chemical Society* 2011, 88, (11), 1715-1720.
- 22) Ganguly, S.; Dana, K.; Mukhopadhyay, T. K.; Ghatak, S., Simultaneous Intercalation of Two Quaternary Phosphonium Salts into Montmorillonite. *Clays And Clay Minerals* 2011, 59, (1), 13-20.
- 23) Ganguly, S.; Dana, K.; Mukhopadhyay, T. K.; Ghatak, S., Thermal degradation of alkyl triphenyl phosphonium intercalated montmorillonites. *Journal of Thermal Analysis and Calorimetry* 2011, 105, (1), 199-209.
- 24) Chakraborty, C.; Dana, K.; Malik, S., Intercalation of Perylenediimide Dye into LDH Clays: Enhancement of Photostability. *Journal of Physical Chemistry C* 2011, 115, (5), 1996-2004.
- 25) Bhattacharyya, S.; Mukhopadhyay, T. K.; Dana, K.; Ghatak, S., Pressureless reaction sintering of yttrium aluminium garnet (YAG) from powder precursor in the hydroxyhydrogel form. *Ceramics International* 2011, 37, (8), 3463-3468.
- 26) Roy, A.; Singh, S. K.; Banerjee, P. C.; Dana, K.; Das Kumar, S., Bio-beneficiation of kaolin and feldspar and its effect on fired characteristics of triaxial porcelain. *Bulletin Of Materials Science* 2010, 33, (3), 333-338.
- 27) Ganguly, S.; Dana, K.; Ghatak, S., Thermogravimetric study of n-alkylammonium-intercalated montmorillonites of different cation exchange capacity. *Journal of Thermal Analysis and Calorimetry* 2010, 100, (1), 71-78.
- 28) Sarkar, M.; Dana, K.; Ghatak, S.; Banerjee, A., Polypropylene-clay composite prepared from Indian bentonite. *Bulletin of Materials Science* 2008, 31, (1), 23-28.
- 29) Dana, K.; Das, S. K., Enhanced resistance to thermal cycling of slag-containing vitrified porcelain tiles. *Industrial Ceramics* 2008, 28, (2), 121-124.
- 30) Roy, I.; Ghosh, S.; Dana, K.; Das, S. K., Development of high strength stoneware composition using ferrogenous and inferior grade china clays *Indoceram* 2007, 43, (3), 80-83.

- 31) Bhattacharyya, S.; Das, S. K.; Dana, K.; Mitra, N. K., Titania doped triaxial porcelain: Enhancement of strength by controlled heat treatment. *Bull. Mat. Sci.* 2007, 30, (3), 231-234.
- 32) Dana, K.; Ghosh, S.; Mukhopadhyay, T. K.; Das, S. K., Feldspathic and pyrophyllitic porcelain : evolution during fast firing,. *Bull.Am.Ceram.Soc* 2006, 85, (12), 9201-05.
- 33) Bhar, K.; Ghosh, S.; Dana, K.; Das, S. K., Effect of additives on the fired characteristics of ferruginous clays of West Bengal. *Indoceram* 2006, 42, (2), 60-63.
- 34) Das, S. K.; Dana, K.; Singh, N.; Sarkar, R., Shrinkage and strength behaviour of quartzitic and kaolinitic clays in wall tile compositions. *Applied Clay Science* 2005, 29, (2), 137-143.
- 35) Dana, K.; Dey, J.; Das, S. K., Synergistic effect of fly ash and blast furnace slag on the mechanical strength of traditional porcelain tiles. *Ceramics International* 2005, 31, (1), 147-152.
- 36) Dana, K.; Das, S. K. R., Effect of Na-feldspar and K-feldspar on the whiteness and other properties of porcelain bodies. *Industrial Ceramics* 2004, 24, (2), 91-95.
- 37) Dana, K.; Das, S. K., Evolution of microstructure in flyash-containing porcelain body on heating at different temperatures. *Bulletin of Materials Science* 2004, 27, (2), 183-188.
- 38) Dana, K.; Das, S. K., Partial substitution of feldspar by BF slag in triaxial porcelain: Phase and microstructural evolution. *Journal of the European Ceramic Society* 2004, 24, (15-16), 3833-3839.
- 39) Dana, K.; Das, S.; Das, S. K., Effect of substitution of fly ash for quartz in triaxial kaolin-quartz-feldspar system. *Journal of the European Ceramic Society* 2004, 24, (10-11), 3169-3175.
- 40) Das, S. K.; Dana, K., Differences in densification behaviour of K- and Na-feldspar-containing porcelain bodies. *Thermochimica Acta* 2003, 406, (1-2), 199-206.
- 41) Dana, K.; Das, S. K., High strength ceramic floor tile compositions containing Indian metallurgical slags. *Journal of Materials Science Letters* 2003, 22, (5), 387-389.
- 42) Dana, K.; Das, S. K., Formulation of some frit compositions for rapid once-fired wall tiles glaze. *Trans.Ind. Cer.Soc* 2003, 62, (3), 158-161.
- 43) Mitra, N. K.; Dana, K.; Basumajumdar, A., Effect of MgO : Al₂O₃ mole ratio on the densification of magnesia-alumina precursor leading to spinel formation. *Journal of the Indian Chemical Society* 2002, 79, (11), 916-918.
- 44) Dana, K.; Swapan.K.Das, Some studies on ceramic body compositions for wall and floor tiles. *Trans.Ind. Cer.Soc.* 2002, 61, (2), 83-6.
- 45) Dana, K.; S.K.Das., Model for pinhole removal from glazed ceramic tile at maturing temperature. *Tile & Brick International* 2002, 18, (5), 294-6.

Paper/ poster presentations:

1. Invited lecture on "Imparting functionality to clays by manipulating the interlayer chemistry" by Kausik Dana at 19th Annual convention and National Conference on Application of clay science in agriculture , environment and industry, organized by

The Clay Minerals Society of India and ICAR, Paribesh Bhawan, Kolkata on 7-8 Aug 2015

2. Contributory lecture on "Imparting functionality to clays by manipulating the interlayer chemistry" by Kausik Dana at Workshop on Indian Innovations in Materials Research: New Materials and Processes (IIMR-15), Organized by CSIR-CGCRI & IAPQR at CSIR-CGCRI, Kolkata; June 25-27, 2015.
3. Training given to members of Bangabhoomi Refractory Cluster on "Basic Refractory for Metallurgical Industries: Perspective of Indian Raw Materials" as instructor and Co-convenor, 20 March 2015, CGCRI, Kolkata
4. Poster presentation: "Mechanistic pathway for thermal decomposition of Layered double hydroxides" authored by Mostofa Shamim, **Kausik Dana**, presented at RAPT 2014-an international conference and expo at University of Calcutta, 22-24th Jan, 2014
5. Oral presentation: "Pyrophyllite dehydroxylation- kinetic evaluation of mechanistic pathway"- authored by Mostofa Shamim, Atiar Rahaman Mollah, Tapas Kumar Mukhopadhyay, **Kausik Dana**; presented at the international conference on Advancements Polymeric Material (APM)-2014, 14-16th Feb at CIPET-Bhubaneswar.
6. "Thermal decomposition kinetics of layered double hydroxides"- authored by Mostofa Shamim, **Kausik Dana**, presented at 'Indian Chemical Engineering Congress' -2014, (67th Annual Session of Indian Institute of Chemical Engineers, CHEMCON -2014, ,pg-233-234), 27-30th Dec at Panjab University Chandigarh.
7. Poster presentation: "Mechanistic pathway for thermal decomposition of Layered double hydroxides"; authored by Mostofa Shamim, **Kausik Dana**, presented at the Research Scholar Day: 2nd Annual Workshop of CSIR-CGCRI, Kolkata, 20th August, 2013.
8. Technical paper presentation: "Non-isothermal Kinetic Evaluation of Pyrophyllite Dehydroxylation" authored by Mostofa Shamim, Atiar Rahaman Mollah, Tapas Kumar Mukhopadhyay, **Kausik Dana**, presented at the 77th Annual session of The Indian ceramic society at Jamshedpur, 19-20th Dec, 2013
9. Oral presentation: "Dynamic evaluation of reaction sintering in MgO-Al₂O₃ system: effect of stoichiometry and additive , **K. Dana**, S. Sinhamahapatra, H. S. Tripathi, V.P.Reddy & A. Ghosh Advances in Refractory Raw Materials- ARMM2013, CSIR-CGCRI Kolkata. 12-13 Nov 2013.
10. Comparative Study of Organic-Inorganic Hybrids Prepared from Montmorillonites Intercalated with Alkyl-Ammonium and Alkyl-Phosphonium Ions" authored by Saheli Ganguly, **Kausik Dana** & Sankar Ghatak at the 20th AGM and symposium on "New Generation composites & Hybrid materials: Concepts to Applications" organized by MRSI on 10-12 Feb, 2009 at SINP, Kolkata.
11. Studies on Indian Bentonite as a precursor to organophilic nanoclay authored by Madhuchhanda Sarkar, **Kausik Dana**, Sankar Ghatak, presented at 72nd Annual session of The Indian ceramic society at Jaipur, 28-30 Jan 2009.

12. Characterization of organic-inorganic hybrids prepared from n-alkylammonium-intercalated Montmorillonites authored by Saheli Ganguly, Kausik Dana, Sankar Ghatak presented at 72nd Annual session of The Indian ceramic society at Jaipur, 28-30 Jan 2009
13. Utilisation of fly ash in triaxial composition as substitution of quartz for the manufacture of ceramic tiles. **Kausik Dana** and Swapan Kr.Das, presented at Asia pacific conclave on coal combustion products: Technology and management, organized by CAAIL on 23-25 Feb 2007 ,held at Hotel Taj Bengal, Kolkata.
14. Polymer- clay composite prepared from pristine Indian bentonite, Madhuchhanda Sarkar. **Kausik Dana**, Sankar Ghatak and A.N.Bandopadhyay, presented at CERATEC 2007 on 8-10 Jan, 70th Annual session of InCerS held in Andhra University, Vizag.
15. New building construction materials : emerging opportunities". National seminar on building construction materials and equipments, Swapan K. Das, Tapas K. Mukhopadhyay, Ritwik Sarkar, **Kausik Dana**, Syamal Ghosh and Sankar Ghatak , *Inst.of Chem .Enggs., Jadavpur University, 20Aug 2005.*
16. Glittering effect on glazed surface through the development of aventurine glaze using waste red mud- an exploratory study. **Kausik Dana** , Ritwik Sarkar and S K.Das Presented at the 69th Annual session of *The Indian Ceramic Society*, Jamshedpur,28-29 Dec 2005.
17. Phase and microstructural evolution in waste-incorporated K₂O-Al₂O₃-SiO₂ system. Presented at 'Young Scientist Colloquia' organized by MRSI, Kolkata held at B.E.College, Shibpur on 9 July,2004.
18. Paper presented "Low shrinkage clays for wall tile body." **Kausik Dana**, Nar Singh,T.K.Mukhopadhyay ,Swapan Kr Das. In International Seminar on Clay and Ceramic materials, Bikaner,15-17 Feb,2004 organized by *Dept. of Mines and Ind,Cer,Soc.*
19. Poster presented: "Prediction of thermal behaviour of commercial glazes- a statistical approach" **Kausik Dana** and Swapan Kr. Das ,67th Annual session of *The Indian Ceramic Society*, 9-11Jan 2004, Chennai.
20. Poster presented: "Some studies on single fast fired wall tile frit composition for tile Industries" **Kausik Dana**, A.K.Kaviraj and Swapan Kr. Das,66th Annual session of *The Indian Ceramic Society*, 7-9 Dec 2003, Kolkata
21. Paper presented: "Some studies on multipurpose body composition for tile Industries" **Kausik Dana** and S K. Das, 65th Annual session of *The Indian Ceramic Society*, 23-24 Jan 2002 ,Jaipur.
22. Poster presented "Effect of ZrO₂ on the sintering behaviour of co-precipitated MgO: Al₂O₃ precursor powder". **Kausik Dana**, Ritwik Sarkar, Swapan.Kr.Das, N.K.Mitra .in seminar on 'Refractories, coatings and advanced ceramics' organized by *The Indian Ceramic Society*, 20 April 2002, Bangalore.