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Journal Publications

1. Rao, G.J.; Mazumder, R.; Dixit, D. **Ghoroi, C.** Bhattacharyya, S.; Chaudhuri, P, "Fabrication and characterization of Li₄SiO₄ pebbles by extrusion spherodization technique: Effects of three different binders", **Ceramic International**, 45, 4022 - 4034 (2019) [Impact Factor 2.986]
2. Dixit, D., Bank, S., Rane, R., **Ghoroi, C.**, "Influence of Ar plasma treatment on the wetting behavior of pharmaceutical powders", **Advanced Powder Technology**, 29, 2928 - 2940 (2018) [Impact Factor 2.493]
3. Maiti, S. C.; Ghadkolai, M. A; Bordia, R. K; **Ghoroi, C.**, "Reaction kinetics to Infer the effect of dopants on Ion Transport - A Case Study for Mo⁺⁶ doped Lithium Titanates (Li₂TiO_{3-δ} and Li₄Ti₅O_{12-δ})", **Ceramic International**, 44 (11), 12580-12592 (2018). [Impact Factor 2.986]
4. Gaurav, S.; **Ghoroi, C.**, Gandhi, P; Jagdish, V.; Karthikeyan, G.; Chakravarthy, A.; Nakrani, D., "Development of a unique full-scale real-fire faade testing facility at IIT Gandhinagar", **Current Science**, 115 (9), 1782-1787 (2018) [Impact Factor 0.883]
5. Jan, S.; Karde, V.; **Ghoroi, C.**; Saxena, D.C.; "Effect of particle and surface properties on flowability of rice flours", **Food Bioscience**, 23, 38-44, 2018 [Impact Factor 1.946]
6. Hadjittofis, E.; Isbell, M.; Karde, V.; Varghese, S.; **Ghoroi, C.**; Heng, J. Y. Y., "Influences of crystal anisotropy in pharmaceutical process development", **Pharmaceutical Research**, 35: 100 (2018) [Impact Factor 3.42]
7. Jan, S.; **Ghoroi, C.**; Saxena, D.C.; "Characterisation of bulk and shear properties of basmati and non-basmati rice flour", **Journal of the Science of Food and Agriculture**, 98(2):667-673(2018) [Impact Factor 2.463]
8. Gandhi, Pravin; Jagdish, V.; Karthikeyan, G.; Chakravarthy, Aravind; Nakrani, Dharmit; **Ghoroi, C.** and Srivastava, Gaurav, Performance of glass-ACP faade system in a full-scale real fire test in a G+2 structure, **Procedia Engineering**, 210, 512-519, (2017).
9. Varghese, S. and **Ghoroi, C.**, "Improving the wetting and dissolution of ibuprofen using solventless co-milling", **Int. J. Pharmaceutics**, 533(1), 145-155 (2017) [Impact Factor 3.649]
10. Bergin, M.H. ; **Ghoroi, C.**; Dixit, D.; Schauer, J.J.; Shindell D. T.; "Large reductions in solar energy production due to dust and particulate air pollution", **Environmental Science & Technology Letters**, 4 (8), 339344 (2017) [Impact Factor 5.308]
11. Jan, S.; **Ghoroi, C.**; Saxena, D.C.; "Characterisation of bulk and shear properties of basmati and non-basmati rice flour", **Journal of the Science of Food and Agriculture**, 76, 215-221, (2017) [Impact Factor 2.463]

12. Jan, S.; **Ghoroi, C.**; Saxena, D.C.; "A comparative study of flow properties of basmati and non-basmati rice flour from two different mills", **Journal of Cereal Science**, 76, 165 - 172 (2017) [Impact Factor 2.223]
13. Maiti, S. C, **Ghoroi, C.**; "Influence of catalytic nano-additive for stabilization of -dicalcium silicate and its hydration rate with different electrolytes", **Cement and Concrete Research**, 98, 111-121 (2017) [Impact Factor 4.762]
14. Jan, S.; **Ghoroi, C.**; Saxena, D.C.; "Effect of particle size, shape and surface roughness on bulk and shear properties of rice flour", **Journal of Cereal Science**, 76, 215 - 221 (2017) [Impact Factor 2.223]
15. Mitra, H; Pushpadass, H. A.; Emerald, F. M. E.; Ambrose, R. P.K.; **Ghoroi, C.**; Nath, B.S. , "Influence of moisture content on the flow properties of basundi mix", **Powder Technology**, 312, 133-143 (2017) [Impact Factor 2.942]
16. Shah, U., Karde, V., **Ghoroi, C.**, Heng, J. Y.Y., "Influence of Particle Properties on Powder Bulk Behaviour and Processability", **Int. J. Pharmaceutics**, 518, 138-154 (2017) [Impact Factor 3.649]
17. Karde, V., Dixit, D., **Ghoroi, C.**, "Adhesion force approximation at varying consolidation stresses for fine powder under humid conditions", **Advanced Powder Technology**, 28, 246 - 355 (2017) [Impact Factor 2.478]
18. Srinivasan, R., and **Ghoroi, C.**, Selected papers from the International Conference on Safety, 2014 Commemorating the 30th anniversary of the Bhopal gas disaster", **Journal of Loss Prevention in the Process Industries**, 42, 1, (2016) [Editorial]
19. Kumar, D., Maiti, S. C, **Ghoroi, C.**, "Decomposition kinetics of CaCO₃ dry coated with nano-silica", **Thermochemica Acta**, 624, 35-46 (2016). [Impact Factor 2.184]
20. Maiti, S. C, and **Ghoroi, C.**, "Thermo-kinetic analysis of Ni-Al intermetallic phase formation in powder form : A case of complex solid-solid reactions", **Journal of Thermal Analysis and Calorimetry** 124 (2) 1039–1051 (2016). [Impact Factor 2.042]
21. **Ghoroi, C.** Venkateswaran, D., Suresh, A. K., "A critique of Thermokinetic analysis in solids processing: cement industry as a case study", **Thermochemica Acta**, 618, 56–66 (2015) [Impact Factor 2.184]
22. Ramanaiah, S.; Karde, V., Venkateswarlu, P.; and **Ghoroi, C.**, "Effect of temperature on the surface free energy and acidbase properties of Gabapentin and Pregabalin drugs a comparative study", **Royal Society of Chemistry (RSC) Advances**, 5, 48712–48719 (2015) [Impact Factor 3.708]
23. Karde, V., Panda, S., **Ghoroi, C.**, "Surface modification to improve powder bulk behavior under humid conditions", **Powder Technology**, 278, 181-188 (2015) [Impact Factor 2.349].
24. Karde, V., **Ghoroi, C.**, "Fine powder flow under humid environmental conditions from the perspective of surface energy". **Int. J. Pharmaceutics** 485, 192 - 201 (2015) [Impact Factor 3.650]

25. Karde, V., **Ghoroi, C.**, "Influence of surface modification on wettability and surface energy characteristics of pharmaceutical excipient powders" - **Int. J. Pharmaceutics**, 475, 351-363 (2014) [Impact Factor 3.650]
26. Thakker, M., Karde, V., Shah, D.O., Shukla, P., **Ghoroi, C.**, "Wettability measurement apparatus for porous material using the modified Washburn method", **Measurement Science and Technology Journal**, 24, 125902 (8pp) (2013). [Impact Factor 1.433]
27. Han, X., D. To, L. Jallo, **Ghoroi, C.**, R. N. Dave, "Passivation of high surface energy sites of milled ibuprofen crystals via dry coating", **Journal of Pharmaceutical Science**, 102, 2282-2296 (2013). [Impact Factor 2.59]
28. **Ghoroi, C.**, Gurumurthy, L., McDaniel, D. J., Jallo, L., Dave, R. N., "Multi-faceted characterization of pharmaceutical powders to discern the influence of surface modification", **Powder Technology**, 236, 63-74 (2013) . [Impact Factor 2.349]
29. **Ghoroi, C.**, Han, X., To, D., Jallo, L., Gurumurthy, L., Dave, R. N., "Dispersion of fine and ultrafine powders through surface modification and rapid expansion", **Chemical Engineering Science**, 85, 11–24, (2013). [Impact Factor 2.333]
30. Han, X., **Ghoroi, C.**, Dave, R. N. "Dry coating of micronized API powders for improved dissolution of directly compacted tablets with high drug loading", **Int. J. Pharmaceutics**, 442 (1-2), 74-85 (2013). [Impact Factor 3.650]
31. Jallo, L., **Ghoroi, C.**, Gurumurthy, L., Patel, U., Dave, R. N., Improvement of flow and bulk density of pharmaceutical powders using surface modification, **Int. J. Pharmaceutics**, 423, 213–225 (2012). [Impact Factor 3.650]
32. Han, X., **Ghoroi, C.**, Chen, Y., Dave, R. N., "Simultaneous micronization and surface modification as a tool to improve flow and dissolution", **Int. J. Pharmaceutics**, 415, 185–195 (2011). [Impact Factor 3.650]
33. Suresh, A. K. and **Ghoroi, C.**, "Solid-solid reactions in series – A modelling and experimental study", **AIChE Journal**, 55(9), 2399-2413 (2009). [Impact Factor 2.748]
34. **Ghoroi, C.** and Suresh, A. K., "Intermediate conversion kinetics in tricalcium aluminate formation", **AIChE Journal**, 53(9), 2399-2410 (2007). [Impact Factor 2.748]
35. **Ghoroi, C.** and Suresh, A. K., "Solid-solid reaction kinetics – Formation kinetics of tricalcium aluminate", **AIChE Journal**, 53(2), 502-513 (2007). [Impact Factor 2.748]

E-Print Archives

1. Jain A., Nyati P., Nuwal N., Ansari A., **Ghoroi, C.** and Ghandi P., "Pre-detection of kitchen fires due to auto-ignition of cooking oil and LPG Leakage in Indian kitchen", **Fire Safety Science** (Digital Archive, Published online) (2014) (Peer-reviewed).
2. Mehta, R., Shah, P., Gupta, H., Bhat, P., Gandhi, V. Kale, K., Taldevkar, M., Singh, A., **Ghoroi, C.**, Bhargav, A., Karnik, A., "Conversion of a CNG powered auto rickshaw to an electric rickshaw designed for Indian conditions", **SAE International**, Paper 2014-01-1968 (2014), (doi:10.4271/2014-01-1968) (Peer-reviewed).

Conferences

1. Maiti, S. C, and **Ghoroi, C.**, "Enhanced CO₂ Capture Capacity using Nano-TiO₂ Coated CaCO₃", Accepted for poster presentation in 3rd International Conference on Applied Surface Science, June 17 - 20, 2019, Pisa, Italy.
2. Dixit, D., and **Ghoroi, C.**, "Droplet Wetting Behavior and Bacterial Adhesion Mechanism on the Surface Designed via Photolithography", Accepted for poster presentation in 3rd International Conference on Applied Surface Science, June 17 - 20, 2019, Pisa, Italy.
3. Dixit, D., and **Ghoroi, C.**, "Novel Surface Engineered Particles for Point-of-Use Water Disinfection", Accepted in 3rd International Conference on Applied Surface Science, June 17 - 20, 2019, Pisa, Italy.
4. Chaudhary, J.P.; Shinmar, A., Meena, B. V.; **Ghoroi, C.**, "Development of sustainable process to treat effluents from textile industries", ICW 2018, International Conference on Water: From pollution to purification, December 7-10, 2018, Kottayam, Kerala, India
5. Varun, N., and **Ghoroi, G.**; "Surface Modification to Improve Drug-Excipient Mixing for DPI Formulation", 2018 AIChE Annual Meeting, October 28 to November 02, 2018, Pittsburgh, USA.
6. Varun, N., and **Ghoroi, G.**; "Investigations of inter-particle interactions between API-excipient for improvement in demixing of DPI formulation", Poster presentation in 2018 AAPS Pharm-Sci 360, November 4-7, 2018, Washington DC.
7. Dixit, D., and **Ghoroi, C.**, "Surface engineering for designing superhydrophobic and superhydrophilic particulate solids", In 8th World Congress on Particle Technology, April 22 - 26, 2018, Orlando, Florida, USA.
8. Varghese, S.; Chaudhary, J.P.; **Ghoroi, C.**, "Controlled release of hydrophobic drug-ibuprofen using Fe-based nano biocomposite impregnated on a polymeric matrix", Accepted in Annual European Rheology Conference (AERC 2018), April 17-20, 2018, Sorrento Italy.
9. Gandhi, P., Jagdish, V. Karthikeyan, G., Chakravarthy, A., Nakrani, D., **Ghoroi, C.**, Gaurav, S. Performance of glass-ACP faade system in a full-scale real fire test in a G+2 structure, PROTECT 2017, December 11-12, 2017, Guangdong, China.
10. Dixit, D., and **Ghoroi, C.**; Understanding the surface chemistry, surface roughness and wettability of argon plasma treated cornstarch powder, AIChE Annual Meeting 2017, October 29 - November 3, 2017, Minneapolis, USA
11. Dixit, D., and **Ghoroi, C.**; Influence of surface asperities and surface energetics on wetting characteristics of spherical glass beads, AIChE Annual Meeting 2017, October 29 - November 3, 2017, Minneapolis, USA.
12. Dixit, D. and **Ghoroi, C.**; "Influence of nanoscale roughness on surface energy and wettability of surface modified glass beads, International Conference on Powder, Granule and Bulk Solids, December 1-3, 2016, Jaipur, India.
13. Dixit, K.; Varghese, S.; Jauhri, A.; S.C. Bhattacharya, S.C.; **Ghoroi, C.**, "Flow improvement of fine propellant powder using nano additives", International Conference on Powder, Granule and Bulk Solids, December 1-3, 2016, Jaipur, India.

14. Varun, N.; Sancheti, A.; Saroj, S; **Ghoroi, C.** "Mixing study of binary cohesive fine powders in a 2D rotary drum", International Conference on Powder, Granule and Bulk Solids, December 1-3, 2016, Jaipur, India.
15. Maiti, S. C and **Ghoroi, C.**, "Influence of nano and micron size additives towards stabilization of -C2S phase through solid state reaction", International Conference on Powder, Granule and Bulk Solids, December 1-3, 2016, Jaipur, India.
16. Varghese, S. and **Ghoroi, C.**, "Improving the wettability of ibuprofen drug using co-milling technique", International Conference on Powder, Granule and Bulk Solids, December 1-3, 2016, Jaipur, India.
17. Maiti, S. C; and **Ghoroi, C.**, Influence of Dry-Coating of Nano-additives on particulate solid flow and its reactions: Cement system a case Study", AIChE Annual Meeting, November 13 18, 2016, San Francisco, USA.
18. Maiti, S. C; and **Ghoroi, C.**, "Thermokinetic analysis of surface coated CaCO₃ with nano-TiO₂ using Master Plot method", The International Confederation for Thermal Analysis Society (ICTAC), August 14-19, 2016, Orlando, Florida, USA.
19. Maiti, S. C; Rathore, N.; **Ghoroi, C.**, "Influence of dry coated nano-additives on Ca₂SiO₄ formation", 14th NCB International Seminar on Cement and Building Materials, December 01-04, 2015, New Delhi, India.
20. Karde, V and **Ghoroi, C.**, "Investigating humidity induced agglomeration and caking behavior of pharmaceutical powders using flow energy method", AAPS Annual Meeting and Exposition, October 25 – October 29, 2015, Orlando, USA.
21. Karde, V and **Ghoroi, C.**, "Humidity dependent stick-slip behavior in fine cohesive powder", AIChE Annual Meeting, November 8 – 13, 2015, Salt Lake City, UT, USA.
22. Maiti, S. C; Rathore, N.; **Ghoroi, C.**, Influence of dry coated nano-additives on Ca₂SiO₄ formation, 14th NCB International Seminar on Cement and Building Materials, December 01-04, 2015, New Delhi, India (*accepted*).
23. Chatterjee, A; Karde, V.; Saroj, S. and **Ghoroi, C.**, "Partial least squares analysis for property prediction of binary blends" CHEMCON 2014, December 27–30, 2014, Chandigarh, India.
24. Ramanaiah, S.; Venkateswarlu, P.; Karde, V. and **Ghoroi, C.**, "Surface thermodynamics of antiepileptic gabapentin drug using iGC – Surface Energy Analyzer", 9th National Conference on Thermodynamics of Chemical, Biological, Environmental and Non-conventional Energy System (TCBNES-2014), Oct 17–18, 2014, Gujarat.
25. Gupta, A., Sharma, G., Heda, S., Dave, D., **Ghoroi, C.**, Srinivasan, R., "Towards an Indian fire accident database - An Android App for automated data gathering", National conference on Fire Research and Engineering (FiRE 2014), March 1-2, 2014, IIT Roorkee, India.
26. Maiti, S.C., Karde, V. **Ghoroi, C.**, "Improvement of aerated discharge rate of cohesive powders by nano-coating", International Conference & Exhibition of Powder, Granule and Bulk Solids: Innovations and Applications, November 28-30, 2013, Thapar University, Patiala, India.

27. Karde, V. and **Ghoroi, C.**, 2013, "Study of wettability and surface energy characteristics of nano-coated pharmaceutical excipient powders", International Conference & Exhibition of Powder, Granule and Bulk Solids: Innovations and Applications November 28-30, 2013, Thapar University, Patiala, India
28. Jain, A., Pineda, A., **Ghoroi, C.**, Papadaki, M., Mannan, S. 2013, "Thermal decomposition of alkyl pyridine N-oxides: Thermal runaway study using the Automatic Pressure Tracking Adiabatic Calorimeter (APTAC)", International Conference on Chemical and Bioprocess Engineering, November 16-17, National Institute of Technology Warangal, Andhra Pradesh, India
29. Jain, A., Nyati, P., Nuwal, N., **Ghoroi, C.**, Ansari, A., Gandhi, P. D., "UL – IIT Gandhinagar Kitchen Fire Safety System", International conference on Suppression, Detection and Signaling Research and Applications (SUPDET 2013), organized by Fire Protection Research Foundation, NFPA, February 26 - March 01, 2013, Orlando, Florida, USA.
30. Nyati, P., Jain, A., Nuwal, N., Gandhi, P. D., **Ghoroi, C.**, "Kitchen Fire Safety System", International conference on Safety, October 12 - 13, 2012, Ahmedabad, India.
31. Han, X., Jallo, L., To, D., **Ghoroi, C.**, Davé, R. N., "Using Inverse Gas Chromatography to assess passivation of high surface energy sites of milled pharmaceutical crystals via dry coating of nano-silica, AIChE Annual Meeting, October 28 – November 02, 2012, Pittsburgh, PA, USA.
32. Han, X., **Ghoroi, C.**, Davé, R. N., "Particle Engineering Via Dry Coating of Micronized API Powders for Improved Dissolution of Directly Compacted Tablets with High Drug Loading, AIChE Annual Meeting, October 28 – November 02, 2012, Pittsburgh, PA, USA.
33. Han, X, To, D. , Jallo, L., **Ghoroi, C.**, Dave, D., "Passivation of High Surface Energy Sites of Milled Ibuprofen Crystals via Dry Coating", 2012 AAPS Annual Meeting and Exposition, October 14 18, 2012, McCormick Place, Chicago, USA.
34. Thakker, M., Shah, D. O., Shukla, P. **Ghoroi, C.**, "Wettability Measurement Apparatus For Porous Material Using Modified Washburn Method", International conference on Nanotechnology - Nanocon 2012, organized by North Carolina A&T State University, USA and Bharatiya Vidyapith, October 18–19, 2012, Pune, India.
35. R. N. Davé, **Ghoroi, C.**, Han, X., To, D., Jallo, L., Gurumurthy, L., "Dispersion of ultrafine powders through surface modification or rapid expansion", Nisshin Engineering Particle Technology International Seminar (NEPTIS) 2010, December 05-08 , 2010, Sendai , Japan.
36. Davé, R. N., Gurumurthy, L., **Ghoroi, C.**, Harris, D., "Flow improvement of pharmaceutical blends via surface modification of cohesive APIs", FIP Pharmaceutical Sciences 2010 World Congress in Association with the AAPS Annual Meeting and Exposition, November 14 – 18, 2010, New Orleans, LA, USA.
37. Han, X., To, D., Chen, Y., **Ghoroi, C.**, Davé, R. N., "Simultaneous micronization and surface modification as a tool to improve flow and dissolution", FIP Pharmaceutical Sciences 2010 World Congress in Association with the AAPS Annual Meeting and Exposition, November 14 – 18, 2010, New Orleans, LA, USA.

38. **Ghoroi, C.**, Bhakay, A., Davé, R. N., "Multifaceted characterization of flow, fluidization and packing properties of pharmaceutical powders for discerning the influence of surface modification", AIChE Annual Meeting, November 07–12, 2010, Salt Lake City, UT, USA.
39. **Ghoroi, C.**, Jallo, L., Gurumurthy, L., Patel, U., To, D., Beach, L., Davé, R. N., Improvement in flowability and bulk density of pharmaceutical powders thorough surface modification, AIChE Annual Meeting, November 07 –12, 2010, Salt Lake City, UT, USA.
40. Davé, R. N., Beach, L., Mullarney, M. P., **Ghoroi, C.**, "A novel continuous device for surface modification of cohesive pharmaceutical powders via dry coating of nano-particles for improved powder flow performance", AIChE Annual Meeting, November 07 –12, 2010, Salt Lake City, UT, USA.
41. Davé, R. N., Gurumurthy, L., **Ghoroi, C.**, Harris, D., "Flow improvement of pharmaceutical blends via surface modification of cohesive API", AIChE Annual Meeting, November 07–12, 2010, Salt Lake City, UT, USA.
42. Davé, R. N., Han, X., **Ghoroi, C.**, "Simultaneous micronization and surface modification as a Tool to improve flow and dissolution of pharmaceutical powders", AIChE Annual Meeting, November 07 – 12, 2010, Salt Lake City, UT, USA.
43. Gurumurthy, L., **Ghoroi, C.**, Davé, R. N., "Improving the flowability of cohesive pharmaceutical powders by dry particle coating", poster presented at 2010 NJPhAST (New Jersey Pharmaceutical Association for Science and Technology), competition, May 20, NJ, USA. *Poster selected for one of the four NJPhAST Graduate Scholarships award.*
44. **Ghoroi, C.**, Suresh, A. K., "Solid-solid reactions: Modelling and experiments", In-House Research Scholar Symposium, Department of Chemical Engineering, IIT Bombay, February, 2007, Mumbai, India.
45. Khadse, A., **Ghoroi, C.**, Mahajani, S., Ganesh, A., Aghalayam. P., "Studies in pyrolysis of Indian coals using Thermogravimetric Analyzer", – 7th International oil and gas conference and exhibition, PETROTECH 2007, January 15 – 19, 2007, New Delhi, India.
46. Khadse, A., **Ghoroi, C.**, Mahajani, S., Aghalayam. P., "Studies in pyrolysis and combustion of Indian coals using Thermogravimetric Analyzer", – The 23rd International Pittsburgh coal conference, September 25 – 27, 2006, Pittsburgh, USA.
47. **Ghoroi, C.**, Suresh, A. K., "Kinetics of calcium aluminate phase formation, 69th Annual session of Indian Ceramic Society, 28th – 29th December, 2005, Jamshedpur, India.
48. **Ghoroi, C.**, Suresh, A. K., "Formation kinetics of tricalcium aluminate, $Ca_3Al_2O_6$ ", CHEM-CON – 2005, December 14 – 17, 2005, New Delhi, India.
49. Venkateswaran, D., **Ghoroi, C.**, Vitta, S., "Influence of glass content on the pozzolanic activity of Class – F Fly ash", International congress on Fly Ash India – 2005, December 04– 07, 2005, New Delhi, India.
50. Venkateswaran, D., **Ghoroi, C.**, "Glass content of granulated blast furnace slag -- A critical appraisal of evaluation methods", The 9th NCB International seminar on Cement and Building Materials, November 08 – 11, 2005, New Delhi, India.