

- Abdulhameed, A., Mbuvi, H.M., Changamu, E.O., Maingi, F.M., "Synthesis of silicon nitride from rice husk and sugarcane bagasse ashes," *J Water Technol Treat Methods*, 1(1) (2018) 106. <http://dx.doi.org/10.31021/jwt.20181106>
- Acchar, W., Dultra, E.J.V., Segadães, A.M., "Untreated coffee husk ashes used as flux in ceramic tiles," *Applied Clay Science*, 75–76 (2013) 141–147.
- Ahmed, Y.M.Z., Ewaisem, E.M., Zaki, Z.I., "Production of porous silica by the combustion of rice husk ash for tundish lining," *J. Univ. Sci. Technol. Beijing*. 15(3) (2008) 307-313.
- Ahmed, A., Abdelmagid, W., Ritchie, H., Myers, P., Zhang, H.F., "Investigation on synthesis of spheres-on-sphere silica particles and their assessment for high performance liquid chromatography applications," *J. Chromatogr. A.*, 1270 (2012) 194-203.
- Akpınar, S., Kusoglu, I.M., Ertugrul, O., Onel, K., "In situ mullite foam fabrication using microwave energy," *Journal of the European Ceramic Society* 32 (2012) 843–848.
- Almeida M.I., Dias A.C., Demertzi M., Arroja L., "Environmental profile of ceramic tiles and their potential for improvement," *Journal of Cleaner Production*, 31 (2016) 583-593.
- Alshatwi, A.A., Athinarayanan, J., Periasamy, V.S., "Biocompatibility assessment of rice husk-derived biogenic silica nanoparticles for biomedical applications," *Mater. Sci. Eng. C*, 47 (2015) 8-16.
- Aouba, L., Countand, M., Perrin, B., Lemercier, H., "Predicting thermal performance of fired clay bricks lightened by adding organic matter: improvement of brick geometry," *Build. Phys.*, 38 (6) (2015) 531–547.
- Aouba, L., Bories, C., Coutand, M., Perrin, B., Lemercier, H., "Properties of fired clay bricks with incorporated biomasses: cases of olive stone flour and wheat straw residues," *Constr. Build. Mater.*, 102 (2016) 7–13.
- Arjmandi, R., Hassan, A., Majeed, K., Zakaria, Z., "Rice Husk Filled Polymer Composites," *International Journal of Polymer Science*, 2015 <http://dx.doi.org/10.1155/2015/501471>
- ASTM C650-04, "Standard Test Method for Resistance of Ceramic Tile to Chemical Substances," ASTM International (2014).
- ASTM C20, "Standard Test Methods for Apparent Porosity, Water Absorption, Apparent Specific Gravity and Bulk Modulus of Burned Refractory Brick and Shapes," ASTM International (2010).
- ASTM C133, "Standard Test Methods for Cold Crushing Strength and Modulus of Rupture of Refractories," ASTM International (2015).
- ASTM C583-10, "Standard Test Method for Modulus of Rupture of Refractory Materials at Elevated Temperatures," ASTM International (2015).
- Awaad, M., Naga, S.M., El-Mehalawy, N., "Effect of replacing weathered feldspar for potash feldspar in the production of stoneware tiles containing fish bone ash," *Ceramics International*, 41(2015) 7816–7822.
- Baraldi, L., "Statistics of 'World production and consumption of ceramic tiles'", *Machinery Economics Studies by ACIMAC* (2016).
- Bernalte, E., Kamieniak, J., Randviir, E.P., Bernalte-Garcia, A., Banks, C.E., "The preparation of hydroxyapatite from unrefined calcite residues and its application for lead removal from aqueous solutions," *RSC Adv.*, 9 (2019) 4054–4062.
- Beaudoin, J.J., Dramé, H., Raki, L., Alizadeh, R., "Formation and characterization of calcium silicate hydrate–hexadecyltrimethylammonium nanostructure," *J. Mater. Res.*, 23(10) (2008) 2804-2815.
- Bhattacharyya, S., Singh, R., "Effect of Solution pH on Mullite Phase Formation from a Diphasic Precursor Powder," *Journal of the Australian Ceramic Society*, 52(2)(2016) 20 – 31.

- Bhardwaj, A., Hossain, S.S., Majhi, M.R., "Preparation and characterization of clay bonded high strength silica refractory by utilizing agriculture waste," *Bol. Soc. Esp. Cerám. Vidr.*, 56 (2017) 256–262.
- Bondioli, F., Andreola, F., Barbieri, L., "Effect of rice husk ash (RHA) in the synthesis of (Pr,Zr)SiO₄ ceramic pigment," *Journal of the European Ceramic Society*, 27 (2007) 3483-2488.
- Bondioli, F., Barbieri, L., Ferrari, A.M., "Characterization of Rice Husk Ash and Its Recycling as Quartz Substitute for the Production of Ceramic Glazes," *J. Am. Ceram. Soc.*, 93(1) (2010) 121-126.
- Bories, C., Aouba, L., Vedrenne, E., "Fired clay bricks using agricultural biomass wastes: study and characterization," *Constr. Build. Mater.*, 91 (2015) 158–163.
- Bragança, S.R., Zimmer, A., Bergmann, C.P., "Use of mineral coal ashes in insulating refractory brick," *Refractories and Industrial Ceramics*, 49(4) (2008) 320-323.
- Braulio, M.A.L., Morbioli, G.G., Medeiros, J., Gallo, J.B., Pandolfelli, V.C., "Nano-bonded wide temperature range designed refractory castables," *J. Am. Ceram. Soc.*, 95 (3) (2012) 1100–1104.
- Cannillo, V., Pierli, F., Sampath, S., Siligardi, C., "Thermal and physical characterisation of apatite/wollastonite bioactive glass-ceramics," *Journal of the European Ceramic Society*, 29 (2009) 611–619.
- Cao, J., Dong, X., Li, L., Dong, Y., Hampshire, S., "Recycling of waste fly ash for production of porous mullite ceramic membrane supports with increased porosity," *Journal of the European Ceramic Society*, 34 (2014) 3181–3194.
- Cao, Z., Cao, Y., Zhang, J., Sun, C., Li, X., "Preparation and characterization of high-strength calcium silicate boards from coal-fired industrial solid wastes," *International Journal of Minerals, Metallurgy and Materials*, 22(8) (2015) 892-900.
- Carter, C.B., Nortan, M.G., "Ceramic Materials Science and Engineering," Springer, Second edition, 19 (2013).
- Carrasco-Hurtado, B., Corpas-Iglesias, F.A., Cruz-Pérez, N., "Addition of bottom ash from biomass in calcium silicate masonry units for use as construction material with thermal insulating properties," *Constr. Build. Mater.*, 52 (2014) 155 –165.
- Castellanos, A.G., Mawson, H., Burke, V., Prabhakar, P., "Fly-ash cenosphere/clay blended composites for impact resistant tiles," *Construction and Building Materials*, 156 (2017) 307–313.
- "Ceramics and Glass in Everyday Life," The American Ceramic Society. <https://ceramics.org/about/what-are-engineered-ceramics-and-glass/ceramics-and-glass-in-everyday-life>. (Accessed on 30.06.2019).
- "Ceramic Tiles Industry Statistics," <http://www.icctas.com/ceramic-tiles-industry-statistics.htm>. (Accessed on 09.09.2019)
- "Ceramic Processing: Slip Casting," 2014 <http://ceramics.org/wp-content/uploads/2014/04/Slip-Casting-Lesson-111.pdf> (Accessed on 10th Oct. 2019).
- Chaudhuri, B., Mondal, B., Modak, D.K., Pramanik, K., Chaudhuri, B.K., "Preparation and characterization of nanocrystalline hydroxyapatite from eggshell and K₂HPO₄ solution," *Materials Letters* 97 (2013) 148–150.
- Choudhary, R., Koppala, S., Swamiappan, S., "Bioactivity studies of calcium magnesium silicate prepared from eggshell waste by sol-gel combustion synthesis," *Journal of Asian Ceramic Societies*, 3 (2015) 173–177.
- Chaaban, M.A., "Hazardous waste source reduction in materials and processing technologies," *J. Mater. Process. Technol.*, 119 (2001) 336–343.
- Chandra, N., Sharma, P., Pashkov, G.L., Voskresenskaya, E.N., Amritphale, S.S., Baghel, N.S., "Coal fly ash utilization: Low temperature sintering of wall tiles," *Waste Management*, 28(2008)1993–2002.

- Chen, C.C., Lai, M.H., Wang, W.C., Ding, S.J., "Properties of anti-washout-type calcium silicate bone cements containing gelatin," *J. Mater. Sci. Mater. Med.*, 21 (2010) 1057–1068.
- Chen, G.L., Qi, H., Xing, W.H., Xu, N.P., "Direct preparation of macroporous mullite supports for membranes by in situ reaction sintering," *J. Membr. Sci.*, 318 (1-2) (2008) 38.
- Chen, J., Wen, Z., Zhong, S., Wang, Z., Wu, J., Zhang, Q., "Synthesis of hydroxyapatite nanorods from abalone shells via hydrothermal solid-state conversion," *Materials and Design* 87 (2015) 445–449.
- Chen, B., Wang, K., Chen, X., Lu, A., "Study of Foam Glass with High Content of Fly Ash Using Calcium Carbonate as Foaming Agent," *Materials Letters*, 79 (2012) 263–265.
- Chen, M., Lu, L., Wang, S., Zhao, P., Zhang, W., Zhang, S., "Investigation on the formation of tobermorite in calcium silicate board and its influence factors under autoclaved curing," *Constr. Build. Mater.*, 143 (2017) 280–288.
- Chen, M., Zhu, L., Dong, Y., Li, L., Liu, J., "Waste-to-Resource Strategy To Fabricate Highly Porous Whisker-Structured Mullite Ceramic Membrane for Simulated Oil-in-Water Emulsion Wastewater Treatment," *ACS Sustainable Chem. Eng.* 4 (2016) 2098–2106.
- Chen, J.J., Li, H.J., Zhou, X.H., Li, E.Z., Wang, Y., Guo, Y.L., Feng, Z.S., "Efficient synthesis of hollow silica microspheres useful for porous silica ceramics," *Ceramics International*, 43 (2017b) 13907–13912.
- Cheng, X.S., Ke, S.J., Wang, Q.H., Wang, H., Shui, A.Z., Liu, P.A., "Fabrication and characterization of anorthite-based ceramic using mineral raw materials," *Ceram. Int.*, 38 (2012) 3227–3235.
- Colloidal silica import data, Seair info solution private limited, <https://www.seair.co.in/colloidal-silica-import-data.aspx> (Accessed on 12.02.2019).
- Cui, S., Yu, S., Lin, B., Shen, X., Gu, D., "Preparation of SiO₂ aerogel from rice husk ash," *RSC Adv.*, 5 (2015) 65818–65826.
- Cui, J., Sun, H., Luo, Z., Sun, J., Wen, Z., "Preparation of low surface area SiO₂ microsphere from wheat husk ash with a facile precipitation process," *Materials Letters*, 156 (2015b) 42–45.
- Dan, D., Tanasa, C., Stoian, V., "Passive house design – an efficient solution for residential buildings in Romania," *Energy Sustain. Dev.*, 32 (2016) 99–109.
- Dasgupta, S., Das, S.K., "Paper pulp waste- a new source of raw material for the synthesis of a porous ceramic composite," *Bull. Mater. Sci.*, 25 (2002) 381–385.
- Das, P., Ganguly, S., Maity, P.P., Bose, M., Mondal, S., Dhara, S., Das, A.K., Banerjee, S., Das, N.C., "Waste chimney oil to nanolights: A low cost chemosensor for tracer metal detection in practical field and its polymer composite for multidimensional activity," *Journal of Photochemistry & Photobiology, B: Biology* 180 (2018) 56–67.
- Deer, Howie, Zussman, "Rock Forming Minerals; Single Chain Silicates," Vol. 2A, Second Edition, London, The Geological Society, (1997).
- Della, V.P., Kuhn, I., Hotza, D., "Rice husk ash as an alternate source for active silica production," *Mater. Lett.* 57 (2002) 818–821.
- Deng, X., Wang, J., Liu, J., Zhang, H., Li, F., Duan, H., Lu, L., Huang, Z., Zhao, W., Zhang, S., "Preparation and characterization of porous mullite ceramics via foam-gel casting," *Ceramics International* 41 (2015) 9009–9017.
- Ding, S.Q., Zeng, Y.P., Jiang, D.L., "Fabrication of mullite ceramics with ultrahigh porosity by gel freeze drying," *J. Am. Ceram. Soc.* 90 (2007) 2276–2279.
- Dhara, S., Bhargava, P., "A simple direct casting route to ceramic foams," *J Am Ceram Soc*, 86 (2005) 1645–50.
- Długosz P., Raczka A., Kopec A., Krzyzak R., Darłak P., Hebda M., "Properties of Light MMCs Modified with Cordierite Synthesized from Fly Ash," *Journal of Materials Engineering and Performance*, 25 (2016) 2261–2266. <http://dx.doi.org/10.1007/s11665-016-2089-1>

- Dorcheh, A.S., Abbasi, M.H., "Silica aerogel; synthesis, properties and characterization," *J. Mater. Process. Technol.*, 199 (2008) 10-26.
- Dondi, M., Guarini, G., Raimondo, M., Zanelli, C., "Recycling PC and TV waste glass in clay bricks and roof tiles," *Waste Management*, 29 (2009) 1945–1951.
- Dong, Y., Zhou, J., Lin, B., Wang, Y., Wang, S., Miao, L., Lang, Y., Liu, X., Meng, G., "Reaction-sintered porous mineral-based mullite ceramic membrane supports made from recycled materials," *J. Hazard. Mater.*, 172 (2009) 180–186.
- Duan, P., Yan, C., Zhou, W., "Development of fly ash and iron ore tailing based porous geopolymers for removal of Cu(II) from wastewater," *Ceram. Int.*, 42 (12) (2016) 13507–13518.
- Du, X., Zhao, L., He, X., Wang, X., Qu, W., Chen, H., Chen, H., Wang, J., Lei, Z., "A novel method based on ultrastable foam and improved gelcasting for fabricating porous mullite ceramics with thermal insulation–mechanical property trade-off," *J Porous Mater* 23 (2016) 381–388.
- Eniu, D., Gruian, C., Vanea, E., Patcas, L., Simon, V., "FTIR and EPR spectroscopic investigation of calcium-silicate glasses with iron and dysprosium," *Journal of Molecular Structure*, 1084 (2015) 23–27.
- Erol, M., Kucukbayrak, S., Ersoy-Mericboyu, A., "Characterization of coal fly ash for possible utilization in glass production," *Fuel*, 86 (2007) 706–714.
- Eliche-Quesada, D., Pérez-Villarejo, L., Iglesias-Godino, F.J., Martínez-García, C., Corpas-Iglesias, F.A., "Incorporation of coffee grounds into clay brick production," *Adv. Appl. Ceram.*, 110 (4) (2011) 225–232.
- Fan, F., Liu, Z., Xu, G., Peng, H., Cai, C.S., "Mechanical and thermal properties of fly ash based geopolymers," *Construction and Building Materials*, 160 (2018) 66-81.
- Farshid, G., Younesi, H., Zahra, M., Sabri, Ç.M., Asghar, G.A., Mansoor, A., "Preparation and characterization of highly pure silica from sedge as agricultural waste and its utilization in the synthesis of mesoporous silica MCM-41," *Journal of the Taiwan Institute of Chemical Engineers*, 44(5) (2013) 821-28.
- Felipe-Sese, M., Eliche-Quesada, D., Corpas-Iglesias, FA., "The use of solid residues derived from different industrial activities to obtain calcium silicates for use as insulating construction materials," *Ceram. Int.* 37 (2011) 3019–3028.
- Feng, Q., Chen, K., Ma, D., Lin, H., Liu, Z., Qin, S., Luo, Y., "Synthesis of high specific surface area silica aerogel from rice husk ash via ambient pressure drying," *Colloids and Surfaces*, 539 (2018) 399-406.
- Fernandes, L., Salomão, R., "Preparation and Characterization of Mullite-Alumina Structures Formed "In Situ" from Calcined Alumina and Different Grades of Synthetic Amorphous Silica," *Materials Research* (2018). <http://dx.doi.org/10.1590/1980-5373-MR-2017-0783>
- Florian, P., Fayon, F., Massiot, D., "²J Si-O-Si Scalar Spin-Spin Coupling in the Solid State: Crystalline and Glassy Wollastonite CaSiO₃," *J. Phys. Chem. C*, 113 (2009) 2562–2572.
- Fonseca, B.S.D., Vilão, A., Galhano, C., Simão, J.A.R., "Reusing coffee waste in manufacture of ceramics for construction," *Adv. Appl. Ceram.*, 113 (3) (2014) 159–166.
- Fukushima M., Yoshizawa Y., "Fabrication and morphology control of highly porous mullite thermal insulators prepared by gelation freezing route," *Journal of the European Ceramic Society* 36 (2016) 2947–2953.
- García, C.M., Fonteboa, B.G., Abella, F.M., López, D.C., "Performance of mussel shell as aggregate in plain concrete," *Construction and Building Materials*, 139 (2017) 570–583.
- Ge, S., Lin, L., Zhang, H., Bi, Y., Zheng, Y., Li, J., Deng, X., Zhang, S., "Synthesis of hierarchically porous mullite ceramics with improved thermal insulation via foam-gel casting combined with pore former addition," *Advances in Applied Ceramics* 117 (8) (2018) 493–499.
- Geraldo, R.H., Fernandes, L.F.R., Camarini, G., "Water treatment sludge and rice husk ash to sustainable geopolymers production," *J. Clean. Prod.*, 149 (2017) 146-155.

- Ghosh, S., Majumdar, R., Sinhamahapatra, B.K., Nandy, R.N., Mukherjee, M., Mukhopadhyay, S., "Microstructures of refractory castables prepared with sol-gel additives," *Ceram. Int.* 29 (2003) 671–677.
- Glucklich, J., Korin, U., "Effect of moisture content on strength and strain energy release rate of cement mortar," *J. Am. Ceram. Soc.*, 58 (1975) 517–521.
- Gonzalves, M.R.F., Bergmann, C.P., "Thermal insulators made with rice husk ashes: production and correlation between properties and microstructure," *Constr. Build Mater.*, 21(12) (2007) 2059–2065.
- Gorilla, G., "The waste hierarchy," *Recycling & waste solutions*, (2019). Available at. <https://www.greengorilla.co.nz/tips-tools-and-guides> (Accessed on 24.08.2019).
- Görhan, G., Simsek, O., "Porous clay bricks manufactured with rice husks," *Construction and Building Materials*, 40 (2013) 390–396.
- Gu, S., Zhou, J., Yu, C., Luo, Z., Wang, Q., Shi, Z., "A novel two-staged thermal synthesis method of generating nanosilica from rice husk via pre-pyrolysis combined with calcination," *Industrial Crops and Products*, 65 (2015) 1-6.
- Gurav, J.L., Rao, A.V., Nadargi, D.Y., "Ambient pressure dried TEOS-based silica aerogels: good absorbents of organic liquids," *J. Mater. Sci.*, 45 (2010) 503-510.
- Guzmán, A.Á., Gordillo, S.M., Delvasto, A.S., Quereda, V.M.F., Sánchez, V.E., "Optimization of the technological properties of porcelain tile bodies containing rice straw ash using the design of experiments methodology," *Ceramics International*, 42 (2016) 15383–15396.
- Han, G., Yang, S., Peng, W., Huang, Y., Wu, H., Chai, W., Liu, J., "Enhanced recycling and utilization of mullite from coal fly ash with a flotation and metallurgy process," *J. Clean. Prod.*, 178 (2018) 804-813.
- Haque, M.E., "Indian fly-ash production and consumption scenario," *Internat. J. Waste Resources*, 3(1) (2013) 22-25.
- Hammel, E.C., Ighodaro, O.L.R., Okoli, O.I., "Processing and properties of advanced porous ceramics: an application based review," *Ceram. Int.* 40 (2014) 15351–15370.
- Hasselman, D.P.H., "Unified theory of thermal shock fracture initiation and crack propagation in brittle ceramics," *J. Am. Ceram. Soc.*, 52(1969) 600–604.
- Herek, L.C.S., Hori, C.E., Reis, M.H.M., Mora, N.D., Tavares, C.R.G., Bergamasco, R., "Characterization of ceramic bricks incorporated with textile laundry sludge," *Ceram. Int.*, 38 (2012) 951–959.
- Heriyanto, Pahlevani, F., Sahajwalla, V., "Synthesis of calcium silicate from selective thermal transformation of waste glass and waste shell," *Journal of Cleaner Production*, 172 (2018) 3019–3027.
- He, H., Yue, Q., Su, Y., Gao, B., Gao, Y., Wang, J., Yu, H., "Preparation and mechanism of the sintered bricks produced from Yellow River silt and red mud," *Journal of Hazardous Materials*, 203– 204 (2012) 53– 61.
- Hossain, S.S., Mathur, L., Singh, P., Majhi M.R., "Preparation of forsterite refractory using highly abundant amorphous rice husk silica for thermal insulation," *J. Asian Ceramic Societies*, 5 (2017) 82-87.
- Hajjou, H., Saâdi, L., Waqif, M., "Synthesis of cordierite using industrial waste fly ash," *Arab J Geosci*, 10 (2017) 359-367. <http://dx.doi.org/10.1007/s12517-017-3156-0>.
- Hurtado, B.C., Iglesias, F.A.C., Pérez, N.C., Cepeda, J.T., Villarejo, L.P., "Addition of bottom ash from biomass in calcium silicate masonry units for use as construction material with thermal insulating properties," *Construction and Building Materials*, 52 (2014) 155–165.
- Hu, W., Liun, H., Hao, H., Yao, Z., Cao, M., Wang, Z., Song, Z., "Influence of TiO₂ additive on the micro wave dielectric properties of α -CaSiO₃–Al₂O₃ ceramics," *Ceramics International*, 41 (2015) S510–S514.

- Hyde, E.D.E.R., Seyfaee, A., Neville, F., Atanasio, R.M., "Colloidal Silica Particle Synthesis and Future Industrial Manufacturing Pathways: A Review," *Ind. Eng. Chem. Res.*, 55 (2016) 8891–8913.
- Ismail, H., Shamsudin, R., Hamid, M.A.A., Awang, R., "Characteristics of β -wollastonite derived from rice straw ash and limestone," *Journal of The Australian Ceramic Society*, 52(2) (2016) 163 – 174.
- Ismael M.R., Anjos R.D., Pandolfelli V.C., "Colloidal Silica as a Nano structured Binder Refractory Castables," *Refractory Application and news*, 11 (4) (2006) 16-20.
- Ismael, M.R., Salomao, R., Pandolfelli, V.C., "Colloidal Silica Bonded Refractory Castables: Optimization of the Particle Size Distribution," *Refractories Application and News*, 13 (2008) 1.
- Iwamoto, M., Tanaka, Y., Sawamura, N., "Remarkable effect of pore size on the catalytic activity of mesoporous silica for the acetalization of cyclohexanone with methanol," *J. Am. Chem. Soc.*, 125 (2003) 13032–13033.
- Jardim, I.M., Souza, D.F., Vasconcelos, D.C.L., Nunes, E.H.M., Vasconcelos, W.L., "Preparation of amine-impregnated silica foams using agar as the gelling agent," *Materials Characterization*, 120 (2016) 175–184.
- Jamo, H.U., Maharaz, M.N., Influence of Addition of Rice Husk Ash on Porcelain Composition, *Science World Journal*, 10(1) (2015) 7-16.
- Janackovič, D., Jokanovič, V., Gvozdenovič, L.K., Zec, S., Uskokovič, D., "Synthesis and formation mechanism of sub micrometer spherical cordierite powder by ultrasonic spray pyrolysis" *J. Mater. Sci.*, 32 (1997) 163–168.
- Janackovi, D., Jokanovic, V., Gvozdenovic, L.K., Zivkovic, L., Uskokovic, D., "Synthesis, morphology, and formation mechanism of mullite particles produced by ultrasonic spray pyrolysis," *Journal of Materials Research*, 11(7) (1996) 1706-1716.
- Ji, R., Zhang, Z., Yan, C., Zhu, M., Li, Z., "Preparation of novel ceramic tiles with high Al_2O_3 content derived from coal fly ash," *Construction and Building Materials*, 114 (2016) 888–895.
- Ji, R., Wu, S., Yan, C., Wang, H., He, Y., Zhao, D., Wang, X., "Preparation and characterization of the one-piece wall ceramic board by using solid wastes," *Ceramics International*, 43 (2017) 8564–8571.
- Julie, Paul, "High-quality tiles from building waste and recycled material," (2019). Available at. <http://www.meman.eu/contents/ficheiros/factsheet-nexiform-tiles.pdf>. (Accessed on 31.07.2019).
- Kadir, A.A., Zahari, N.A.M., Mardi, N.A., "Utilization of palm oil waste into fired clay brick," *Adv. Environ. Biol.*, 7 (12) (2013) 3826–3834.
- Kang P.C., Chen G.Q., Zhang B., Wu G.H., Mula S., Koch C.C., "Oxidation protection of carbon fibers by a reaction sintered nanostructured SiC coating," *Surface & Coatings Technology* 206 (2011) 305–311.
- Kavas, T., Karasu, B., Arslan, O., "Utilization of refractory brick wastes in concrete production as aggregates," *the minerals, metals & materials society*, 5 (2006).
- Kima, K., Kim, K., Hwang, J., "Characterization of ceramic tiles containing LCD waste glass," *Ceramics International*, 42 (2016) 7626–7631.
- Kim J., Cho K.H., Kagomiya I., Park K., "Structural studies of porous Ni/YSZ cermets fabricated by the solid-state reaction method," *Ceramics International* 39 (2013) 7467–7474.
- Karamanov, A., Pelino, M., "Induced crystallization porosity and properties of sintered sdiopsidite and wollastonite glass-ceramics," *Journal of the European Ceramic Society*, 28 (2008) 555–562.
- Katsube, K., Hashida, M., Tenra, T., "Development of high-performance vacuum insulation panel," *Matsushita Tech. J.*, 52 (6) (2006) 482–485.

- Kazmi, S.M.S., Abbas, S., Saleem, M.A., Munir, M.J., Khitab, A., "Manufacturing of sustainable clay bricks: Utilization of waste sugarcane bagasse and rice husk ashes," *Construction and Building Materials*, 120 (2016) 29–41.
- Ke, S., Wang, Y., Pan, Z., Ning, C., Zheng, S., "Recycling of polished tile waste as a main raw material in porcelain tiles," *J. Clean. Prod.*, 115 (2016) 238–244.
- Khezrabad, M.N., Braulio, M.A.L., Pandolfelli, V.C., Golestani-Fard, F., Rezaie, H.R., "Nanobonded refractory castables," *Ceram. Int.* 39 (2013) 3479–3497.
- Khoo, Y.C., Johari, I., Ahmad, Z.A., "Influence of rice husk ash on the engineering properties of fired clay brick," *Adv. Mater. Res.*, 795 (2013) 14–18.
- Kingery, W.D., Bowen, H.K., Uhlmann, D.R., "Introduction to ceramics," 2nd edition, New York: Wiley, (1976).
- Kishore, R., Bhikshma, V., Prakash, P., "Study on strength characteristics of high strength rice husk ash concrete," *Procedia Eng.* 14 (2011) 2666–2672.
- Kurama, S., Kurama, H., "The reaction kinetics of rice husk based cordierite ceramics," *Ceram. Int.*, 34 (2008) 269–272.
- Kumar, G.S., Girija, E.K., Venkatesh, M., Karunakaran, G., Kolesnikov, E., Kuznetsov, D., "One step method to synthesize flower-like hydroxyapatite architecture using mussel shell bio-waste as a calcium source," *Ceramics International* 43 (2017) 3457–3461.
- Lamouria, S., Hamidouche, M., Bouaouadja, N., Belhoucheta, Q.H., Garnier, V.T., Fantozzi, G., Trekkat, J.F., "Control of the γ -alumina to α -alumina phase transformation for an optimized alumina densification," *Bol. Soc. Esp. Cerám. Vidr.* (2016), <http://dx.doi.org/10.1016/j.bsecv.2016.10.001>
- Leung, N., "High Fireproof Calcium Silicate Board for Indoor Ceiling/ Partition," Foshan Olar Co., Ltd., (2019) <https://fs-olar.en.made-in-china.com/product/vBtmirhMXOWa/China-High-Fireproof-Calcium-Silicate-Board-for-Indoor-Ceiling-Partition.html> (Accessed on 07.09.2019).
- Leite, F.H.G., Almeida, T.F., Faria-Jr R.T., Holanda J.N.F., "Synthesis and characterization of calcium silicate insulating material using avian eggshell waste," *Ceramics International* 43 (2017) 4674–4679.
- Lee, W.E., Vieira, W., Zhang, S., Ahari, K.G., Sarpoolaky, H., Parr, C., "Castable refractory concrete," *Intern. Mater. Rev.*, 46 (3) (2001) 145–167.
- Li, G., Xu, X., Chen, E., Fan, J., Xiong, G., "Properties of cement-based bricks with oyster-shells ash," *J. Clean. Prod.*, 91 (2015) 279–287.
- Li, W., Huang, Q., Guo, H., Hou, Y., "Green synthesis and photoluminescence property of β -SiC nanowires from rice husk silica and phenolic resin," *Ceramics International*, 44 (2018a) 4500–4503.
- Li, Y., Lu, J., Zeng, Y., Liu, Z., Wang, C., "Preparation and characterization of mullite powders from coal fly ash by the mullitization and hydrothermal processes," *Materials Chemistry and Physics*, 213 (2018b) 518–524.
- Li, T., Wang, T., "Preparation of silica aerogel from rice hull ash by drying at atmospheric pressure," *Materials Chemistry and Physics*, 112 (2008) 398–401.
- Li, J.H., Ma, H.W., Huang, W.H., "Effect of V₂O₅ on the properties of mullite ceramics synthesized from high-aluminum fly ash and bauxite," *J. Hazard. Mater.*, 166 (2-3) (2009) 1535.
- Li, Z., Luo, Z., Li, X., Liu, T., Guan, L., Wu, T., Lu, A., "Preparation and characterization of glass-ceramic foams with waste quartz sand and coal gangue in different proportions," *J Porous Mater.*, 23 (2016) 231–238.
- Li, S., Du, H., Guo, A., Xu, H., Yang, D., "Preparation of self-reinforcement of porous mullite ceramics through in situ synthesis of mullite whisker in flyash body," *Ceramics International* 38 (2012) 1027–1032.

- Lim, H.M., Lee, J., Jeong, J.H., Oh, S.G., Lee, S.H., "Comparative Study of Various Preparation Methods of Colloidal Silica," *Engineering*, 2 (2010) 998-1005.
- Lin, B., Li, S., Hou, X., Li, H., "Preparation of high performance mullite ceramics from high-aluminum fly ash by an effective method," *Journal of Alloys and Compounds*, 623 (2015) 359–361.
- Liu, R., Xue, T., Song, J., Wang, Y., Qi, T., Qu, J., Du, A., "Removal of silicon in acid leaching and flocculation processes during zirconium oxychloride octahydrate production," *Ceram. Int.*, 40 (2014) 8801-8808.
- Liu, X., Chen, X., Yang, L., "A review on recent advances in the comprehensive application of rice husk ash." *Res. Chem. Intermed.*, 42 (2016) 893–913.
- Liu, X.Y., Ding, C.X., Chu, P.K., "Mechanism of apatite formation on wollastonite coatings in simulated body fluids," *Biomaterials*, 25 (2004) 2007–2012.
- Liu, J., Dong, Y., Dong, X., Hampshire, S., Zhu, L., Zhu, Z., Li, L., "Feasible recycling of industrial waste coal fly ash for preparation of anorthite-cordierite based porous ceramic membrane supports with addition of dolomite," *Journal of the European Ceramic Society*, (2015). <http://dx.doi.org/10.1016/j.jeurceramsoc.2015.11.012>
- Liu, K., Feng, Q., Yang, Y., Zhang, G., Ou, L., Lu, Y., "Preparation and characterization of amorphous silica nanowires from natural chrysotile," *Journal of Non-Crystalline Solids*, 353 (2007) 1534–1539.
- Lee, J.H., Choi, H.J., Yoon, S.Y., Kim, B.K., Park, H.C., "Porous mullite ceramics derived from coal fly ash using a freeze-gel casting/polymer sponge technique," *J. Porous Mater.*, 20 (1) (2013) 219.
- Le, V.H., Nhan, C., Thuc, H., Thuc, H.H., "Synthesis of silica nanoparticles from Vietnamese rice husk by sol-gel method," *Nanoscale Research Letters*, 8 (2013) 58.
- Lokare, K.S., "Rising from the Ashes: Renewable Silica from Rice Husk Ash", (2017). Available at. <http://www.biofuelsdigest.com/bdigest/2017/09/06/rising-from-the-ashes-renewable-silica-from-rice-husk-ash/> (Accessed on 26.04.2018).
- Lopes, S.J.S., Luz, A.P., Gomes, D.T., Pandolfelli, V.C., "Self-flowing high-alumina phosphate-bonded refractory castables," *Ceramics International*, 43 (2017) 6239–6249.
- Lü, Q., Dong, X., Zhu, Z., "Environment-oriented low-cost porous mullite ceramic membrane supports fabricated from coal gangue and bauxite," *J. Hazard. Mater.*, 273 (6) (2014) 136–145.
- Luo, Y., Zheng, S., Ma, S., Liu, C., Ding, J., Wang, X., "Novel two-step process for synthesising β -SiC whiskers from coal fly ash and water glass," *Ceram. Int.*, (2018a) <https://doi.org/10.1016/j.ceramint.2018.03.082>.
- Luo, Y., Ma, S., Zheng, S., Liu, C., Han, D., Wang, X., "Mullite-based ceramic tiles produced solely from high-alumina fly ash: Preparation and sintering mechanism," *J. Alloys and Compounds* 732 (2018b) 828-837.
- Luo, Y., Zheng, S., Ma, S., Liua, C., Wang, X., "Ceramic tiles derived from coal fly ash: Preparation and mechanical characterization," *Ceram. Int.* 43 (2017) 11953–11966.
- Luza, A.P., Consoni, L.B., Pagliosa, C., Aneziris, C.G., Pandolfelli, V.C.. "MgO fumes as a potential binder for in situ spinel containing refractory castables," *Ceramics International*, 44 (2018) 15453–15463. A.P.
- Luz, Lopes, S.J.S., Gomes, D.T., Pandolfelli, V.C., "High-alumina refractory castables bonded with novel alumina-silica-based powdered binders," *Ceramics International* 44 (2018) 9159–9167.
- Lyckfildt, O., Ferreira, J.M.F., "Processing of porous ceramics by starch consolidation," *J Eur Ceram Soc*, 18 (1998) 131–140.
- Mandal, A.K., Verma, H.R., Sinha, O.P., "Utilization of aluminum plant's waste for production of insulation bricks," *Journal of Cleaner Production*, 162 (2017) 949-957.

- Maschio, S., Furlani, E., Tonello, G., Faraone, N., Aneggi, E., Minichelli, D., Fedrizzi, L., Bachiorrini, A., Bruckner, S., "Fast firing of tiles containing paper mill sludge, glass cullet and clay," *Waste Management*, 29 (2009) 2880–2885.
- Mitsuhashi, T., "Evaluations of thermal and mechanical properties of refractories – fundamentals and applications – 1.1 Thermal conductivity – Fundamentals (1)," *J. Tech. Assoc. Refract. Jpn.*, 25 (1) (2005) 50–58.
- Mishra, P., Chakraverty, A., Banerjee, H.D., "Studies on physical and thermal properties of rice husk related to its industrial application," *Journal of Materials Science*, 21(6) (1986) 2129–2132.
- Min Y, Akbulut M, Kristiansen K, Golan Y, Israelachvili J. The role of interparticle and external forces in nanoparticle assembly. *Nat. Mater.* 2008;7:527–538.
- Mo, K.H., Alengaram, U.J., Jumaat, M.Z., Yap S.P., Lee, S.C., "Green concrete partially comprised of farming waste residues: a review," *J. Clean. Prod.*, 117 (2016) 122–138.
- More, A., Tarade, A., Anant, A., "Assessment of suitability of fly ash and rice husk ash burnt clay bricks," *Int. J. Sci. Res. Pub.*, 14 (7) (2014) 1–6.
- Mor, S., Manchanda, C.K., Kansal, S.K., Ravindra, K., "Nanosilica extraction from processed agricultural residue using green technology," *Journal of Cleaner Production*, 143 (2017) 1284–1290.
- Montes, O.B., Álvarez, M., Aza, A.H.D., Pena, P., Baudín, C., "The main role of silica-Based cement free binders on the microstructural evolution and mechanical behavior of high alumina castables," *Journal of the European Ceramic Society*, 38 (2018) 4137–4148.
- Mucsi, G., Szenczi, Á., Nagy, S., "Fiber reinforced geopolymers from synergetic utilization of fly ash and waste tire," *J. Clean. Prod.*, 178 (2018) 429–440.
- Munasir, Supardi Z.A.I., Mashadi, Nisa Z., Kusumawati D.H., Putri N.P., Taufiq A., Sunaryono, Hidayat, Darminto N., "Phase Transition of SiO₂ Nanoparticles Prepared from Natural Sand: The Calcination Temperature Effect," *Journal of Physics: Conf. Series*, 1093 (2018) 012025. <http://dx.doi.org/10.1088/1742-6596/1093/1/012025>
- Makeitfrom, "Alumina vs. Mullite," 2018. <https://www.makeitfrom.com/compare/Alumina-Aluminum-Oxide-Al2O3/Mullite> (Accessed on 19th Oct. 2019).
- Naga, S.M., El-Maghraby, H.H., Sabed, M., "Highly porous scaffolds made of nanosized hydroxyapatite powder synthesized from eggshell," *J. Ceram. Sci. Technol.*, 6 (2015) 237–244.
- Naskar, M.K., Chatterjee, M. "A novel process for the synthesis of cordierite (Mg₂M₄Si₅O₁₈) powder from rice husk ash and other sources of silica and their comparative study," *J. Eur. Ceram. Soc.*, 24(13) (2004) 3499–3508.
- Nayak, J.P., Bera, J., "Preparation of Silica Aerogel by Ambient Pressure Drying Process using Rice Husk Ash as Raw Material," *Trans. Ind. Ceram. Soc.*, 68(2) (2009) 91–94. <http://dx.doi.org/10.1080/0371750X.2009.11082163>
- Noor, A.H.M., Aziz, S.H.A., Rashid, S.S.A., Zaid, M.H.M., Alassan, Z.N., Matori, K.A., "Synthesis and characterization of wollastonite glass-ceramics from eggshell and waste glass," *J. Solid St. Sci. & Technol. Letters*, 16 (1-2) (2015) 1–5.
- Nour, W.M.N., Mostafa, A.A., Ibrahim, D.M., "Recycled wastes as precursor for synthesizing wollastonite," *Ceramics International*, 34 (2008) 101–105.
- Ohashi, Y., "Polysynthetically-twinned structures of enstatite and wollastonite," *Phys. Chem. Miner.*, 10 (5) (1984) 217–229.
- Olivia, M., Mifshella, A.A., Darmayanti L., "Mechanical properties of seashell concrete," *Procedia Engineering*, 125 (2015) 760–764.
- Olgun, A., Erdogan, Y., Ayhan, Y., Zeybek, B., "Development of ceramic tiles from coal fly ash and tincal ore waste," *Ceramics International*, 31 (2005) 153–158.

- Okada, K., Kaneda, J., Kameshima, Y., Yasumori, A., Takei, T., "Crystallization kinetics of mullite from polymeric Al₂O₃-SiO₂xerogels," *Materials Letters*, 57 (2003) 3155–3159.
- Onojah, A.D., Agbendeh, N.A., Mbakaan, C., "Rice husk ash refractory: the temperature dependent crystalline phase aspects," *IJRAS*, 15 (2) (2013) 246-248.
- Otero, J.G., Blanco, F., Garcia, M.P., Ayala, J., "Manufacture of refractory insulating bricks using fly ash and clay," *British Ceramic Transactions*, 103 (4) (2004) 181-186. <https://doi.org/10.1179/096797804225018714>
- Ozturk, Z.B., Gultekin, E., "Preparation of ceramic wall tiling derived from blast furnace slag," *Ceram. Int.*, 41 (2015) 12020–12026.
- Pan, Y., He, S., Cheng, X., Li, Z., Li, C., Huang, Y., Gong, L., "A fast synthesis of silica aerogel powders-based on water glass via ambient drying," *J. Sol-Gel Sci., Technol.* 82 (2017) 594–601.
- Palusziewicz, C., Blazewicz, M., Podporska, J., Gumiła, T., "Nucleation of hydroxyapatite layer on wollastonite material surface: FTIR studies," *Vibrational Spectroscopy*, 48 (2008) 263–268.
- Pal, A.R., Bharati, S., Krishna, N.V.S., Das, G.C., Pal, P.G., "The effect of sintering behaviour and phase transformations on strength and thermal conductivity of disposable tundish linings with varying compositions," *Ceram. Int.*, 38 (2012) 3383–3389.
- Papynov, E.K., Shichalin, O.O., Mayorov, V.Y., Modin, E.B., Portnyagin, A.S., Gridasova, E.A., Agafonova, I.G., Zakirova, A.E., Tananaev, I.G., Avramenko, V.A., "Sol-gel and SPS combined synthesis of highly porous wollastonite ceramic materials with immobilized Au-NPs," *Ceramics International* 43 (2017) 8509–8516.
- Pappua, A., Saxena, M., Asolekar, S.R., "Solid wastes generation in India and their recycling potential in building materials," *Building and Environment*, 42 (2007) 2311–2320.
- Parr, C., Pelletier, J., Wöhrmeyer, C., Zetterstrom, C., "A Review of Bond Systems for Monolithic Castable Refractories," *Refractories Worldforum*, 7 (2005) 63–70.
- Patel, K., Patel, U., Sheth, C., "Indian Ceramic Tile Industry – Organised sector to benefit from changing demographics and preferences," Credit Analysis & Research Limited (2016).
- Patel, C.S., Modi, P.I., "Feasibility study on using grog waste in production of eco-friendly building material," *International journal of advanced technology in engineering and science*, 5(1) (2017) 100-108.
- Pinheiro, B.C.A., Holanda, J.N.F., "Reuse of solid petroleum waste in the manufacture of porcelain stoneware tile," *J. Environ. Manag.*, 118 (2013) 205-210.
- Prasara-A, J., Gheewala, S.H., "Sustainable utilization of rice husk ash from power plants: A review," *J. Clean. Prod.*, 167 (2017) 1020-1028.
- Prasad, C.S., Maiti, K.N., Venugopal, R., "Effect of rice husk ash in whiteware compositions," *Ceramics International*, 27 (2001) 629-635.
- Prasad, C.S., Maiti, K.N., Venugopal, R., "Effect of substitution of quartz by rice husk ash and silica fume on the properties of whiteware compositions," *Ceramics International*, 29 (2003) 907-914.
- Puntharod, R., Sankram, C., Chantaramee, N., Pookmanee, P., Haller, K.J., "Synthesis and characterization of wollastonite from egg shell and diatomite by the hydrothermal method," *Journal of Ceramic Processing Research*, 14 (2) (2013) 198-201.
- Pyzik, A., Ziebarth, R., Han, C., Yang, K., "High-porosity acicular mullite ceramics for multifunctional diesel particulate filters," *Int. J. Appl. Ceram. Technol.* 8(5) (2011) 1059–1066.
- Qian, H., Cheng, X., Zhang, H., Zhang, R., Wang, Y., "Preparation of Porous Mullite Ceramics Using Fly Ash Cenosphere as a Pore-Forming Agent by Gelcasting Process," *Int. J. Appl. Ceram. Technol.* 11 (5) (2014) 858–863.
- Quiño, J., Franke, K., Ivanova, M., Kareth, S., Petermann, M., Braeuer, A.S., "In situ measurement of drug transport in porous silica gel," *Microporous and Mesoporous Materials*, 260 (2018) 17–23.

- Qiu, W., Ruan, G., Zhang, Z., "Properties of silica sol bonded corundum-spinel castables for steel ladles," *Int J Appl Ceram Technol.*, 15 (2018)1182–1189. <https://doi.org/10.1111/ijac.12885>
- Rafiee, E., Shahebrahimi, S., "Nano silica with high surface area from rice husk as a support for 12-Tungstophosphoric acid: an efficient nano catalyst in some organic reactions," *Chin. J. Catal.*, 33 (2012) 1326-1333.
- Rahman, M.H., Islam, M.T., Minhaj, T., Azad, M.A.K., Hasan, M.M., Haque, A.A.M.R., Study of Thermal Conductivity and Mechanical Property of Insulating Firebrick Produced by Local Clay and Petroleum Coal Dust As Raw Materials, *Procedia Engineering* 105 (2015) 121 – 128.
- Ram, R.S., "Report on Fly Ash Generation at Coal/Lignite Based Thermal Power Stations and its Utilization in the Country for the year 2017-18," Central Electricity Authority, Delhi (2018). Available at. http://www.cea.nic.in/reports/others/thermal/tcd/flyash_201718.pdf (Accessed on 26.08.2019).
- Rajanna, S.K., Kumar, D., Vinjamur, M., Mukhopadhyay, M., "Silica aerogel microparticles from rice husk ash for drug delivery," *Ind. Eng. Chem. Res.*, 54 (2015) 949-956.
- Rambaldi, E., "Porcelain Stoneware tiles containing 85% of recycled materials," (2018). Available at. http://www.wincer-project.eu/wp-content/uploads/2018/01/Layman-Report-Wincer-ENG_DEF-min.pdf. (Accessed on 31.07.2019).
- Regmi, B., "Long-Term Management of Kosi River Basin," *Environmental Science and Engineering*, (2013) 381-390. http://dx.doi.org/10.1007/978-3-642-29107-4_21
- Richerson, D.W., "The magic of ceramics," The American Ceramic Society, Westerville, A coffee table book about ceramics, illustrating their diverse applications and uses, (2000).
- Romero, M., Pérez, J.M., "Relation between the microstructure and technological properties of porcelain stoneware: A review," *Mater. Construcc.*, 65 (320) (2015). <http://dx.doi.org/10.3989/mc.2015.05915>
- Ronan, K., Kannan, M.B., "Novel Sustainable Route for Synthesis of Hydroxyapatite Biomaterial from Biowastes," *ACS Sustainable Chem. Eng.*, 5 (2017) 2237–2245.
- Roy J., Chandra S., Maitra S., "Nanotechnology in castable refractory," *Ceramics International*, (2019) <https://doi.org/10.1016/j.ceramint.2018.09.261>
- Rujitanapanich, S., Kumpapan, P., Wanjanoi, P., "Synthesis of Hydroxyapatite from Oyster Shell via Precipitation," *Energy Procedia*, 56 (2014) 112–117.
- Sandoval, M.L., Camerucci, M.A., "Shaping of porous mullite green bodies by foaming and thermal gelation of bovine serum albumin," *Journal of the European Ceramic Society* 35 (2015) 2171–2182.
- Sathiparan, N., Rumeshkumar, U., "Effect of moisture condition on mechanical behavior of low strength brick masonry," *Journal of Building Engineering*, 17 (2018) 23–31.
- Sarangi, M., Bhattacharyya, S., Behera, R.C., Effect of temperature on morphology and phase transformations of Nano crystalline silica obtained from rice husk, *Phase Transitions*, 82(5) (2009) 377-386.
- Schettino, M.A.S., Holanda, J.N F., "Characterization of sugarcane bagasse ash waste for Its Use in Ceramic Floor Tile," *Procedia Materials Science*, 8 (2015) 190 – 196.
- Schneider, H., Schreuer, J., Hildmann, B., "Structure and properties of mullite – are view," *J. Eur. Ceram. Soc.*, 28 (2008) 329–344.
- Sen, S., "Ceramic whitewares: their technologies and applications," Oxford & IBH publishing co. pvt. Ltd., 1st edition (1992) 169.
- Serra, M.F., Conconi, M.S., Gauna, M.R., Suárez, G., Aglietti, E.F., Rendtorff, N.M., "Mullite ($3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$) ceramics obtained by reaction sintering of rice husk ash and alumina, phase evolution, sintering and microstructure," *Journal of Asian Ceramic Societies* 4 (2016) 61–67.

- Sembiring, S., Simanjuntak, W., Manurung, P., Asmi, D., Low, I.M., "Synthesis and characterisation of gel-derived mullite precursors from rice husk silica," *Ceramics International*, 40 (2014) 7067–7072.
- Sembiring, S., Simanjuntak, W., Situmeang, R., Riyanto, A., Sebayang, K., "Preparation of refractory cordierite using amorphous rice husk silica for thermal insulation purposes," *Ceram. Int.*, 42 (2016) 8431–8437.
- Sembiring, S., Simanjuntak, W., Situmeang, R., Riyanto, A., Karo-Karo, P., "Effect of alumina addition on the phase transformation and crystallisation properties of refractory cordierite prepared from amorphous rice husk silica," *J. Asian Ceramic Societies*, 5 (2017) 186–192.
- Serra, M.F., Conconi, M.S., Gauna, M.R., Suárez, G., Aglietti, E.F., Rendtorff, N.M., "Mullite ($3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$) ceramics obtained by reaction sintering of rice husk ash and alumina, phase evolution, sintering and microstructure," *J. Asian Ceramic Societies*, 4 (2016) 61–67.
- Shahbandeh, M., "Paddy rice production worldwide 2017-2018, by country," (2018). Available at. <https://www.statista.com/statistics/255937/leading-rice-producers-worldwide/> (Accessed on 26.04.2018).
- Shahnani, M., Mohebbi, M., Mehdi, A., Ghassemour, A., Aboul-Enein, H.Y., "Silica microspheres from rice husk: A good opportunity for chromatography stationary phase," *Industrial Crops & Products*, 121 (2018) 236–240.
- Shavandi, A., Bekhit, A.E.A., Ali, A., Sun, Z., "Synthesis of nano-hydroxyapatite (nHA) from waste mussel shells using a rapid microwave method," *Materials Chemistry and Physics* 149-150 (2015) 607-616.
- Shavandi, A., Wilton, V., Bekhit, A.E.A., "Synthesis of macro and micro porous hydroxyapatite (HA) structure from waste kina (*Evechinus chloroticus*) shells," *Journal of the Taiwan Institute of Chemical Engineers*, 65 (2016) 437–443.
- Sharafabadi, A.K., Abdellahi, M., Kazemi, A., Khandan, A., Ozada, N., "A novel and economical route for synthesizing akermanite ($\text{Ca}_2\text{MgSi}_2\text{O}_7$) nano-bioceramic," *Materials Science and Engineering C*, 71 (2017) 1072-1078.
- Shen, Y., "Rice husk silica derived nano-materials for sustainable applications," *Renewable and Sustainable Energy Reviews*, 80 (2017) 453–466.
- Shamsudin, R., Azam, F.A.A., Hamid, M.A.A., Ismail, H., "Bioactivity and Cell Compatibility of β -Wollastonite Derived from Rice Husk Ash and Limestone," *Materials*, 10 (2017) 1188.
- Sheng, J., Huang, B.X., Zhang, J., Zhang, H., Sheng, J., Yu, S., Zhang, M., Production of glass from coal fly ash. *Fuel*, 82 (2003) 181–185.
- Silva, G.H.M.J.S.D., Surangi, M.L.C., "Effect of waste rice husk ash on structural, thermal and run-off properties of clay roof tiles," *Construction and Building Materials*, 154 (2017) 251-257.
- Sigma-Aldrich, LUDOX® AS-30 colloidal silica, https://www.sigmaaldrich.com/catalog/product/aldrich/420832?lang=en®ion=IN&gclid=EAIAIQobChMI_M0t1-m14AIVRRSPCh2UwArBEAAVASAEgK9HPD_BwE (Accessed on 12.02.2019).
- Sing, K.S.W., Everett, D.H., Haul, R.A.W., Moscou, L., Pierotti, R.A., Rouquerol, J., Siemieniewska, T., "Reporting physisorption data for gas/solid systems with Special Reference to the Determination of Surface Area and Porosity," *Pure & App!. Chem.*, 57(4) (1985) 603-619.
- Singh, A.K., Sarkar, R., "Nano mullite bonded refractory castable composition for high temperature applications," *Ceramics International*, 42(2016)12937–12945.
- Singh A.K., Sarkar R., "Development of spinel sol bonded high pure alumina castable composition," *Ceramics International*, (2016b), <http://dx.doi.org/10.1016/j.ceramint.2016.08.041i>
- Singh, A.K., Sarkar, R., "High alumina castables: a comparison among various sol-gel bonding systems," *J Aust Ceram Soc*, (2017), <https://doi.org/10.1007/s41779-017-0067-1>

- Sixiao, H., Hsieh, Y.L., "Preparation of activated carbon and silica particles from rice straw," ACS Sustainable Chemistry & Engineering.; 2 (2014) 726-734.
- Śłosarczyk, A., "Recent advances in research on the synthetic fiber based silica aerogel nanocomposites," Nanomaterials, 7 (2017) 44.
- Sobrosa, F.Z., Stochero, N.P., Marangon, E., Tier, M.D., "Development of refractory ceramics from residual silica derived from rice husk ash," Ceram. Int., 43 (2017) 7142–7146.
- Soltani, N., Bahrami, A., Pech-Canul, M.I., Gonzalez, L.A., Gurlo, A., "Kinetics of Silicon Nitride Formation on SiO₂-Derived Rice Husk Ash Using the Chemical Vapor Infiltration Method," Int J Chem Kinet, 49 (2017) 293–302. <http://dx.doi.org/10.1002/kin.21075>
- Studart, A.R., Gonzenbach, T., Tervoort, E., Gauckler, L.J., "Processing routes to macroporous ceramics: a review," J. Am. Ceram. Soc. 89 (2006) 1771–1789.
- Sutcu, M., Alptekin, H., Erdogmus, E., "Characteristics of fired clay bricks with waste marble powder addition as building materials," Constr. Build. Mater., 82 (2015) 1-8.
- Sutcu, M., Akkurt, S., "The use of recycled paper processing residues in making porous brick with reduced thermal conductivity," Ceram. Int., 35 (2009) 2625-2631.
- Sukkae, R., Suebthawilkul, S., Cherdhirunkorn, B., "Utilization of coal fly ash as a raw material for refractory production," J. of Metals, Materials and Minerals, 28 (2018) 116-123.
- Sultana P., Das S., Bagchi B., Bhattacharya A., Basu R., Nandy P., "Effect of size of fly ash particle on enhancement of mullite content and glass formation," Bull. Mater. Sci., 34(7) (2011) 1663–1670.
- Tadjarodi, A., Haghverdi, M., Mohammadi, V., "Preparation and characterization of nano-porous silica aerogel from rice husk ash by drying at atmospheric pressure," Materials Research Bulletin, 47 (2012) 2584-2589.
- Talou, M.H., Camerucci, M.A., "Processing of porous mullite ceramics using novel routes by starch consolidation casting," Journal of the European Ceramic Society 35 (2015) 1021–1030.
- Talou, M.H., Camerucci, M.A., "Two alternative routes for starch consolidation of mullite green bodies," Journal of the European Ceramic Society 30 (2010) 2881–2887.
- Tangboriboon, N., Khongnakhon, T., Kittikul, S., Kunanuruksapong, R., Sirivat A., "An innovative CaSiO₃ dielectric material from eggshells by sol-gel process," J Sol-Gel Sci Technol, 58(2011)33–41.
- Tang, Y., Yuan, L., Xue, J., Duan, C., "Experimental study on fracturing coal seams using CaO demolition materials to improve permeability," Journal of Sustainable Mining, 16 (2017) 47-54.
- Tang, F., Fudouzi, H., Uchikoshi, T., Sakka, Y., "Preparation of porous materials with controlled pore size and porosity," J Eur Ceram Soc, 24 (2004) 341–344.
- Tarhan, M., Tarhan, B., Aydin, T., "The effects of fine fire clay sanitaryware wastes on ceramic wall tiles," Ceramics International, 42 (2016) 17110–17115.
- Teixeira, L.B., Fernandes, V.K., Maia, B.G.O., Arcaro, S., De-Oliveira, A.P.N., "Vitrocristalline foams produced from glass and oyster shell wastes," Ceram. Int., 43 (2017) 6730–6737.
- Teo, P.T., Seman, A.A., Basu, P., Sharif, N.M., "Recycling of Malaysia's electric arc furnace (EAF) slag waste into heavy-duty green ceramic tile," Waste Management, 34 (2014) 2697–2708.
- Thakur, A.K., Gupta, A.K., "Water absorption characteristics of paddy, brown rice and husk during soaking," Journal of Food Engineering, 75 (2006) 252–257.
- Thapa, A.B., "The sorrow of Bihar: Kosi River," (2004). Available at <http://madhesi.wordpress.com/tag/kosi/> (Accessed 20 June 2019).
- Torres, P., Fernandes, H.R., Olhero, S., Ferreira, J.M.F., "Incorporation of wastes from granite rock cutting and polishing industries to produce roof tiles," Journal of the European Ceramic Society, 29 (2009) 23–30.

- Tomita, T., Kawasaki, S., "Effect of viscosity on preparation of foamed silica ceramics by a rapid gelation foaming method," *Journal of Porous Materials*, 12 (2005) 123–129.
- Tomita, T., Kawasaki, S., "A novel preparation method for foamed silica ceramics by sol-gel reaction and mechanical foaming," *Journal of Porous Materials*, 11 (2004) 107–15.
- Tsai, W.T., Yang, J.M., Lai, C.W., "Characterization and adsorption properties of eggshells and eggshell membranes," *Bioresour. Technol.*, 97 (2006) 488–493.
- Turkmen, O., Kucuk, A., Akpinar, S., "Effect of wollastonite addition on sintering of hard porcelain," *Ceramics International*, 41 (2015) 5505–5512.
- Ugheoke B.I., Onche E.O., Namessan O.N., Asikpo G.A., "Property optimization of kaolin-rice husk insulating fire-bricks," *Leonardo Electron. J. Pract. Technol.* 5 (2006) 167–178.
- Upadhyaya, L., "Zero Waste," Degree programme thesis, Centria University of Applied Sciences, 2013.
https://www.theseus.fi/bitstream/handle/10024/63146/Upadhyaya_Luv.pdf?sequence=1&isAllowed=y (Accessed on 31.08.2019).
- Ummartyotin S., Tangnorawich B., "Utilization of eggshell waste as raw material for synthesis of hydroxyapatite," *Colloid. Polym. Sci.*, 293 (2015) 2477–2483.
- Vakalova, T.V., Pogrebennov, V.M., Karionova, N.P., "Solid-phase synthesis of wollastonite in natural and technogenic siliceous stock mixtures with varying levels of calcium carbonate component," *Ceramics International*, 42 (2016) 16453–16462.
- Verma, J., Vijayakumar, M., Mitra, R., "Processing and microstructure of freeze-cast silica foams," *Materials Letters*, 15 (2015) 3168–3170.
- Verma, J., Mitra, R., Vijaya, k.M., "Processing of silica foam using steam heating and its characterization," *Journal of the European Ceramic Society*, 33 (2013) 943–951.
- Velmurugan, P., Shim, J., Lee, K.J., Cho, M., Lim, S.S., Seo, S.K., Cho, K.M., Bang, K.S., Oh, B.T., "Extraction, characterization, and catalytic potential of amorphous silica from corn cobs by sol-gel method," *J. Ind. Eng. Chem.*, 29 (2015) 298–303.
- Vichaphund, S., Kitiwan, M., Atong, D., Thavorniti, P., "Microwave synthesis of wollastonite powder from eggshells," *Journal of the European Ceramic Society*, 31 (2011) 2435–2440.
- Vieira, C.M.F., Monteiro, S.N., "Effect of grog addition on the properties and microstructure of a red ceramic body for brick production," *Construction and Building Materi*a 21 (2007) 1754–1759.
- Vilarrasa-García, E., Cecilia, J.A., Santo,s S.M.L., Cavalcante-Jr, C.L., Jiménez-Jiménez, J., Azevedo, D.C.S., Rodríguez-Castellón, E., "CO₂ adsorption on APTES functionalized mesocellular foams obtaine from mesoporous silicas," *Microporous and Mesoporous Materials*, 187 (2014) 125–134.
- Vijayan, S., Wilson, P., Prabhakaran, K., "Ultra low-density mullite foams by reaction sintering of thermo-foamed alumina-silica powder dispersions in molten sucrose," *Journal of the European Ceramic Society* 37 (2017) 1657–1664.
- Virta, R.L., "Wollastonite," U.S. Geological Survey, Minerals Yearbook (2009).
<http://minerals.usgs.gov/minerals/pubs/commodity/wollastonite/myb1-2009-wolla.pdf>
- Vu, D.H., Wang, K.S., Bac, B.H., "Humidity control porous ceramics prepared from waste and porous materials," *Materials Letters*, 65 (2011) 940–943.
- Wang, Y., Song, J., Guo, Q., Xi, X., Hou, G., Wei, G., Qu, J., "The environmental sustainability of synthetic wollastonite using waste from zirconium oxychloride production," *Journal of Cleaner Production*, 172 (2018b) 2576–2584.
- Wang, Z., Feng, P., Wang, X., Geng, P., Akhtar, F., Zhang, H., "Fabrication and properties of freeze-cast mullite foams derived from coal-series kaolin," *Ceramics International* 42 (2016) 12414–12421.
- Wang, H.B., Lin, Z.Z., He, Z.Y., "A new brick prepared from municipal sewage sludge and shale," *Adv. Mater. Res.*, 374–377 (2012) 18–23.

- Wang, H., Zhu, M., Sun, Y., Ji, R., Liu, L., Wang, X., "Synthesis of a ceramic tile base based on high-alumina fly ash," *Construction and Building Materials*, 155 (2017) 930–938.
- Wang, H., Sun, Y., Liu, L., Ji, R., Wang, X., "Integrated utilization of fly ash and waste glass for synthesis of foam/dense bi-layered insulation ceramic tile," *Energy & Buildings* 168 (2018) 67–75.
- Wang, S., Zhang, C., Chen, J., "Utilization of Coal Fly Ash for the Production of Glass-ceramics With Unique Performances: A Brief Review," *J. Mater. Sci. Technol.*, 30(12) (2014) 1208-1212.
- Worrall, W.E., "Clays and ceramic raw materials," 2nd edition, Elsevier applied science publishers, London (1986).
- William, R., "Properties of ceramic raw materials," Pergamon international library, 2nd edition, Guildford, Surrey (1978).
- Witoon, T., "Characterization of calcium oxide derived from waste eggshell and its application as CO₂ sorbent," *Ceram. Int.*, 37(8) (2011) 3291–3298.
- Wu, S.C., Hsu, H.C., Hsu, S.K., Chang, Y.C., Ho, W.F., "Effects of heat treatment on the synthesis of hydroxyapatite from eggshell powders," *Ceramics International*, 41 (2015) 10718–10724.
- Wu, S.C., Hsu, H.C., Hsu, S.K., Tseng, C.P., Ho, W.F., "Preparation and characterization of hydroxyapatite synthesized from oyster shell powders," *Advanced Powder Technology* 28 (2017) 1154–1158.
- Wu, C., Fan, W., Zhou, Y., Luo, Y., Gelinsky, M., Chang, J., Xiao, Y., "3D-printing of highly uniform CaSiO₃ ceramic scaffolds: preparation, characterization and in vivo osteogenesis," *J. Mater. Chem.*, 22 (2012) 12288-12295.
- Xia W, Chang J. Preparation and the phase transformation behavior of amorphous mesoporous calcium silicate. *Micropor Mesopore Mat.*, 108 (2008) 345–351.
- Xiao, J., Li, F., Zhong, Q., Bao, H., Wang, B., Huang, J., Zhang, Y., "Separation of aluminum and silica from coal gangue by elevated temperature acid leaching for the preparation of alumina and SiC," *Hydrometallurgy*, 155 (2015) 118-24.
- Yazdani, A., Rezaie, H.R., Ghassai, H., Mahmoudian, M., "The effect of processing parameters on the hydrothermal synthesis of wollastonite at low pressure," *Journal of Ceramic Processing Research*, 14(1) (2013) 12-16.
- Yin, Y., Ma, B., Li, S., Zhang, B., Yu, J., Zhang, Z., Li, G., "Synthesis of Al₂O₃-SiC composite powders from coal ash in NaCl-KCl molten salts medium," *Ceramics International*, 42 (2016) 19225–19230.
- Zhang, R., Feng, J., Cheng, X., "Porous thermal insulation materials derived from fly ash using a foaming and slip casting method," *Energy Build.*, 81 (2014) 262–267.
- Zhang, X., Ma G., Jin Y., "Puhong Cheng, Preparation of ceramic tiles with black pigments using stainless steel plant dust as a raw material," *Ceramics International*, 40 (2014) 9693–9700.
- Zhou, W., Yana, W., Li, N., Li, Y., Dai, Y., Han, B., Wei, Y., "Preparation and characterization of mullite foam ceramics with porous struts from white clay and industrial alumina," *Ceramics International* 44 (2018) 22950–22956.
- Zhu J., Yan H., "Microstructure and properties of mullite-based porous ceramics produced from coal fly ash with added Al₂O₃," *International Journal of Minerals Metallurgy and Materials*, 24(3) (2017) 309-315.