

Assist Prof. Dr.Sirithan Jiemsirilers
Dept. of Materials Science, Faculty of Science,
Chulalongkorn University
Tel **02-218-5557** Fax **02-218-5561**
Email: sirithan.j@chula.ac.th, dr.sirithan@gmail.com

Education

Clemson University, Clemson, SC

Doctor of Philosophy in Ceramic Engineering, *Effects of Glass Composition on the Liquidus Surfaces of High Zirconia Containing Waste Glasses*, August 2000

Vanderbilt University, Nashville, TN

Master of Science in Materials Science, *Sr₂TiSi₂O₈ Grain Oriented Glass Ceramics*, Date: August 1996

Chulalongkorn University, Bangkok, Thailand

Bachelor of Science in Materials Science, *Synthesis of Zircon Pigment* Date: May 1989

Working Experience

August 2000 – Present, Department of Materials Science, Faculty of Science, Chulalongkorn university, Bangkok, Thailand

Lecturer: Conducting lectures for undergraduate and graduate students, conducting researches in the field of glasses and ceramics as followings

May 1989 - February 1994, Thai Ceramic Company Co. Ltd. (Siam Cement Group), Saraburi Thailand. Research Scientist: in a department of Technical and development Responsibilities include researching and developing new products according to market demands, maintaining consistency in production operation, trouble shooting in production lines, analyzing and solving problems, reducing production cost, replacing shortage and expensive materials.

November - December 1989, Technical Training, *Fast Firing Mosaic*, Takasago Co. LTD Nagoya, Japan

May 1990, Technical training, *Fast Firing Mosaic Glazes*, Takasago Co. LTD Nagoya, Japan

May-June 1988, Internship, studied on *the effect of green shrinkage on fired sanitary ware*, American Standard Co. Ltd. , Bangkok, Thailand:

Publications;

1. Kaewtabutr, Y., Tonchangya, S., Jiemsirilers, S., Jinawath, S., Wada, S., (2003), Effect of pin-diameter on the strength of Al₂O₃ ceramics, Journal of Scientific Research, Chulalongkorn University, vol 28-2, pp. 77-85

2. Supothina, S., Thavornniti, P., Jiemsirilers, S., Crystallization Study of Modified Hydrometallurgical Zinc Waste, REWAS' 04: Global Symposium on Recycling, Vol. III (Print Format), I. Gaballah, B. Mishra, R. Solosabal, M. Tanaka, editors , pp. 2831, 2004
3. Jiemsirilers, S., Pattarachao, B., Thavorniti, P., and Supothina, S., Properties of glass-ceramics synthesized from hydrometallurgical zinc waste, Ceramic Transaction, Melt Chemistry, Relaxation, and Solidification Kinetics of Glasses, CeramicTransactions, Volume 170, p. 237-246, 2005
4. Wada, S., Jiemsirilers, S., and Jinawath, S. (2005) "Thermal Conductivity of Al_2O_3 Ceramics: A Discussion on the Application of Kitayama Model to the Thermal Conductivity of Al_2O_3 Ceramics", Journal of Scientific Research , Chulalongkorn University, 30 [2], 193-204
5. Patarachao, B., Jiemsirilers, S., Thavorniti, P., and Supothina, S., (2006), "The Effect of Crystal Phase Formation on Leachability of Pb from Glass Ceramics Prepared from Industrial Zinc Waste", Eco – Materials Processing and Design, Ceramic Transactions Series, Vol 193, pp. 91 – 98
6. Kreethawate, L., Jiemsirilers, S., Thavorniti, P., and Supothina, S., (2006), "High Percentages of Hydrometallurgical Zinc Waste Loading in Unglazed Tile Body", Eco – Materials Processing and Design, Ceramic Transactions Series, Vol 193, pp. 99 – 106
7. Aungatichart, P., Jiemsirilers, S., and Wada, S., (2006), "Design and Reliability of Clay Hardness Tester", Journal of the Ceramic Society of Japan, 114[10], 829-832
8. Jiemsirilers, S., Prayoonpantarut, W., Laosuparp, P., Kashima, D.P., (2006), "Preparation of porous calcium phosphate glass ceramics for biomaterial applications", Archives of Bioceramics Research, Volume 6, 254-256
9. Pimtong-Ngam, Y., Jiemsirilers, S., and Supothina, S., (2006) Journal: SENSORS AND ACTUATORS A: PHYSICAL, Vol.139, Issue 1-2, 7-11
10. Hanpongpun, W., Jiemsirilers, S., and Thavorniti, P., (2007), "Effects of Clear and Amber Cullet on Physical and Mechanical Properties of Glass-Ceramics Containing Zinc Hydrometallurgy Waste", Journal of Solid Mechanics and Materials Engineering, Volume 1, (11), 1305-1312
11. Kasuriya, S., Jiemsirilers, S., and Thavorniti, P., "Effect of MSW Incineration Bottom Ash in Clay Based Ceramics", Materials Science Forum, 2008, 569, 205-208
12. Saiintawong, K, Tada, M., Jinawath, S. and Jiemsirilers, S., "Forming Porcelain Insulators", Ceramic Industry, May 2008, 19-23.
13. Chaitree, W., Jiemsirilers, S., Mekasuwandumrong, O., Praserttham, P., Charinpanitkul, T., Panpranot, J., (2010) Effect of Milling on the Formation of Nanocrystalline $\chi\text{-Al}_2\text{O}_3$ from Gibbsite, Journal of the American Ceramic Society, Volume 93, 10, 3377 – 3383
14. Kreethawate, L., Larpiattaworn, S., Jiemsirilers, S., Besra, L., and T. Uchikoshi, T., (2010), "Application of electrophoretic deposition for inner surface coating of porous ceramic tubes", Surface and Coatings Technology Volume 205, 7, 1922-1928
15. Apirat Theerapapvisetpong, Sirithan Jiemsirilers, Parjaree Thavorniti, Reinhard Conradt, "Barium-Free Glass-Ceramic Sealants from the System $\text{CaO-MgO-B}_2\text{O}_3\text{-Al}_2\text{O}_3\text{-SiO}_2$ for Application in the SOFC", Materials Science Forum (Volume 695), (2011), pp1-4

16. S. Vichaphund¹, S. Jiemsirilers² and P. Thavorniti, “Sintering of Municipal Solid Waste Incineration Bottom Ash”, Journal of Engineering Science, Vol. 8, (2012), 49–57
17. Kreethawate, L., Larpkiattaworn, S., Jiemsirilers, and T. Uchikoshi, T., “The Characteristic of Inner Surface Coating on Porous Al₂O₃ Tube by Electrophoretic Deposition”, Key Engineering Materials, Vol. 545, (2013) pp 19-23
18. Pijarn, N., Jiemsirilers, S., Jinawath, S., Photocatalytic activity of mixed phase TiO₂ from microwave-assisted synthesis. Advance Materials research 664 (2013): 661-666.
19. N. Pijarn, S. Jiemsirilers, and S. Jinawath, Effect of Sample Separation Processing Techniques on Particle Size and Photocatalytic Activity of TiO₂ from Microwave-Assisted Synthesis, International Journal of Materials, Mechanics and Manufacturing, Vol. 1, No. 3, August 2013, pp.269-273.
20. S., Onutai, S., Jiemsirilers, S., Wada, and P., Thavorniti, “Preparation and characterization of fly ash and aluminium waste geopolymer”, Key Engineering Materials Vol. 608 (2014) pp 108-113
21. N., Kosachan, A., Jaroenwolaluck, S., Jiemsirilers, S., Jinawath, and R., Stevens, “Preparation of Calcium Phosphate Cement Utilizing Dicalcium Phosphate Dihydrate and Calcium Carbonate”, Key Engineering Materials Vol. 608 (2014) pp 280-286
22. Nudthakarn Kosachan, Angkhana Jaroenworuluck, Sirithan Jiemsirilers, Supatra Jinawath, Ron Stevens, “Hydroxyapatite nanoparticles formed under a wet mechanochemical method”, Biomed Mater Res Part B, online
23. Sujitra Onutai, Sirithan Jiemsirilers; Parjaree Thavorniti; Takaomi Kobayashi, “ALUMINIUM HYDROXIDE WASTE BASED GEOPOLYMER COMPOSED OF FLY ASH FOR SUSTAINABLE CEMENT MATERIALS”, Construction and Building Materials, 101, (2015), 298-308,

Professional Memberships and committee:

- Committee of Thai Ceramic Society (2001 – present)