

2011=2554 (Oct 2010 – Sep 2011)

BL3.2Ua: PES 3 articles

1. Meevasana, W., King, P.C.D., He, R.H., Mo, S-K., Hashimoto, A., Tamai, A., Songsirittthigul, P., Baumberger, F. and Shen, Z-X. "Creation and Control of a Two-Dimensional Electron Liquid at the Bare SrTiO₃ Surface" *Nature Materials* 10 (Jan 2011): 114-118.
2. Supruangnet, R., Nakajima, H., Chai-ngam, R., Songsirittthigul, P. and Kakizaki, A. "Electronic Structure and Magnetic Anisotropy Ni/Cu(001) from Angle-Resolved Photoemission Spectroscopy" *Journal of Physical Society of Japan* 80.6 (May 2011): 064706.
3. Nakajima, H., Pukird, S., Boonyaratgalin, W., Ishii, T. and Kakizaki, A. "Electronic and Magnetic Structures in O/Cr(001) Surface from Angle-Resolved Photoemission Spectroscopy" *Journal of the Physical Society of Japan* 79.10 (Oct 2010): 104710.

BL6a: DXL 2 articles

1. Kerdlaapee, P., Wisitsoraat, A., Leksakul, K., Phokharatkul, D., Phatthanakun, R. and Tuantranont, A. "Low Cost and High Resolution X-ray Lithography for Fabrication of Microactuator" *Advanced Materials Research* 254 (May 2011): 66-69.
2. Sukonrat, P., Sriphung, C., Rattanasakulthong, W. and Sirisathitkul, C. "Characterization of Cobalt Films on X-ray Lithographic Micropillars" *Advanced Materials Research* 335-336 (Sep 2011): 1000-1003.

BL8: XAS 15 articles

1. Bajamundi, J.E. Cyril, Dalida, L. P. Maria, Wantala, K., Khemthong, P., and Grisdanurak, N. "Effect of Fe³⁺ Doping on the Performance of TiO₂ Mechanocoated Alumina Bead Photocatalysts" *Korean Journal of Chemical Engineering* 28.8 (Feb 2011): 1688-1692.
2. Chayakul, K., Srithanratana, T. and Hengrasmee, S. "Effect of Re Addition on the Activities of Co/CeO₂ Catalysts for Water Gas Shift Reaction" *Journal of Molecular Catalysis A: Chemical* 340.1-2 (Apr 2011): 39-47.
3. Khemthong, P., Klysubun, W., Prayoonpokarach, P., Roessner, F. and Wittayakun, J. "Comparison between Cobalt and Cobalt-Platinum Supported on Zeolite NaY: Cobalt Reducibility and their Catalytic Performance for Butane Hydrogenolysis" *Journal Industrial and Engineering Chemistry* 12 (Nov 2010): 531-538.
4. Klysubun W., Thongkam Y., Pongkrapan S, Won-In, K., T-Thienprasert, J. and Dararutana, P. "XAS Study on Copper Red in Ancient Glass Beads from Thailand" *Analytical and Bioanalytical Chemistry* 399.9 (Mar 2011): 3033-3040.
5. Kulawong, S., Prayoonpokarach, S., Neramittagapong, A. and Wittayakun, J. "Mordenite Modification and Utilization as Supports for Iron Catalyst for Phenol Hydroxylation" *Journal of Industrial and Engineering Chemistry* 17 (Mar 2011): 346-351.
6. Loiha, S., Klysubun, W., Khemthong, P., Prayoonpokarach, S. and Wittayakun, J. "Reducibility of Ni and NiPt Supported on Zeolite Beta Investigated by XANES" *Journal of the Taiwan Institute of Chemical Engineers* 42.3 (May 2011): 527-532.
7. Ngamjarurojana, A., Srisombat, L-O., Yimnirun, R. and Ananta, S. "Extended X-Ray Absorption Fine Structure and X-Ray Diffraction Studies of Mn-Doped PZN-PZT Ceramics" *Ferroelectrics* 405.1 (Dec 2010): 50-56.
8. Prangsri-aroon, S., Viravathana, P., Bangmek, W., Worayingyong, A., Kangwansupamonkon, W., Deutschmann, O. and Schulz, H. "Promoted and Un-promoted Co/SiO₂ Fischer-Tropsch Catalysts" *Advanced Materials Research* 287-290 (Jul 2011): 3093-3097.
9. Prietzel, J., Botzaki, A., Tyufekchieva, N., Brettholle, M., Thieme J, and Klysubun, W. "Sulfur Speciation in soil by S K-Edge XANES Spectroscopy: Comparison of Spectral Deconvolution and Linear Combination Fitting" *Environmental of Science Technology* 45.7 (Apr 2011): 2878-2886.

10. Pongkrapan, S., Yamban, S., Won-in, K., Dararutana, P. and Sirikulrat, N. "Optical, Dielectric and X-Ray Absorption Properties of Soda-Based Glass Fabricated from Thai Quartz Sands Doped with Iron Oxide" *Materials Science Forum* 663-665 (2011): 385-388.
11. Sinyoung, S., Asavapisit, S., Kajitvichyanukul, P. and Songsiriritthigul, P. "Speciation of Cr in Cement Clinkers Obtained from Co-Burning with C_{203} " *Nuclear Instruments and Methods in Physics Section A* 649.1 (Sep 2011): 210-212.
12. Thungprasert, S., Sarakonsri, T., Klysubun, W. and Vilaithong, T. "Preparation of Pt-Based Ternary Catalyst as Cathode Material for Proton Exchange Membrane Fuel Cell by Solution Route Method" *Journal of Alloys and Compounds* 509.24 (Jun 2011): 6812-6815.
13. Viravathana, P., Sukwises, N., Boonpa, S. and Larpiattaworn, S. "Na₂WO₄-Mn/mullite Catalysts for Oxidative Coupling of Methane" *Advanced Materials Research* 287-290 (Mar 2011): 3015-3019.
14. Songsiriritthigul, C., Lapboonrueng, S., Roytrakul, S., Haltrich, D., and Yamabhai, M. "Crystallization and Preliminary Crystallographic Analysis of β -Mannanase from *Bacillus licheniformis*" *Acta Crystallographica Section F* 67 (Feb 2011): 217-220. Use MX, XAS
15. T-Thienprasert, J., Klaithong, S., Niltharach, A., Worayingyong, A., Na-Phattalung, S. and Limpijumnong, S. "Local Structures of Cobalt in Co-Doped TiO₂ by Synchrotron X-Ray Absorption Near Edge Structures" *Current Applied Physics* 11.3 (May 2011): S279-S284.

Others 3 articles

1. Chandarak, S., Ngamjarurojana, A., Srilomsak, S., Laoratanakul, P., Rujirawat, S. and Yimniru, R. "Dielectric Properties of BaTiO₃-Modified BiFeO₃ Ceramics" *Ferroelectrics* 410.1 (Jan 2011): 75-81.
2. Reunchan, P., Zhou, X., Limpijumnong, S., Janotti, A. and Van de Walle, C.G. "Vacancy Defects in Indium Oxide: An *ab-initio* Study" *Current Applied Physics* 11.3 (May 2011): S296-S300.
3. Sinyoung, S., Songsiriritthigul, P., Asavapisit, S. and Kajitvichyanukul, P. "Chromium Behavior During Cement-Production Processes: A Clinkerization, Hydration, and Leaching Study" *Journal of Hazardous Materials* 191.1-3 (Jul 2011): 296-305.

SR Related 3 articles

1. Sansenya, S., Opassiri, R., Kuaprasert, B., Chen, C-J. and Ketudat Cairns, J.C. "The Crystal Structure of Rice (*Oryza sativa* L.) Os4BGlu12, an Oligosaccharide and Tuberonic Acid Glucoside-Hydrolyzing β -Glucosidase with Significant Thioglucosylhydrolase Activity" *Archives of Biochemistry and Biophysics* 510 (Jun 2011): 62-72.
2. Thumanu, K., Tanthanuch, W., Ye, D., Sangmalee, A., Lortongpanich, C., Parnpai, R. and Heraud, P. "Spectroscopic Signature of Mouse Embryonic Stem Cells Derived Hepatocytes Using Synchrotron FTIR Microspectroscopy" *Journal of Biomedical Optics* 16.5 (May 2011): 057005.
3. Yamabhai, M., Buranabanyat, B., Jaruseranee, N. and Songsiriritthigul, C. "Efficient *Escherichia coli* Expression Systems for the Production of Recombinant β -mannanases and other Bacterial Extracellular Enzymes" *Bioengineered Bugs* 21 (Jan-Feb 2011): 45-49.

IR end station 2 articles

1. Chonanant, C., Jearanaikoon, N., Leelayuwat, C., Limpai boon, T., Tobin, M-J., Jearanaikoon, P. and Heraud, P. "Characterisation of Chondrogenic Differentiation of Human Mesenchymal Stem Cells Using Synchrotron FTIR Microspectroscopy" *Analyst* 136 (Apr 2011): 2542-2551.
2. Rakkapoa, N., Vao-soongnern, V., Masubuchi, Y. and Watanabe, H. "Miscibility of Chitosan/poly (ethylene oxide) Blends and Effect of Doping Alkali and Alkali Earth Metal Ions on Chitosan/PEO Interaction" *Polymer* 52 (May 2011): 2618-2627.

MX end station 2 articles

1. Kuaprasert, B., Silprasit, K., Horata, N., Khunrae, P., Wongpanya, R., Boonyalai, N., Vanavichit, A. and Choowongkamon, K. "Purification, Crystallization and Preliminary X-ray Analysis of a Recombinant Rice Betaine Aldehyde Dehydrogenase (OsBADH2), Jasmine Aroma Involving Protein

- from Thai Fragrance Rice (*Oryza sativa* L.)" *Acta Crystallography Section F* 67.10 (Aug 2011): 1221-1223.
2. Songsiriritthigul, C., Lapboonrueng, S., Roytrakul, S., Haltrich, D., and Yamabhai, M. "Crystallization and Preliminary Crystallographic Analysis of β -Mannanase from *Bacillus licheniformis*" *Acta Crystallographica Section F*. 67 (Feb 2011): 217-220. Use MX, XAS