

2010=2553 (Oct 2009 – Sep 2010)

BL3.2Ua: PES 2 articles

1. Meevasana, W., Supruangnet, R., Nakajima, H., Topon, O., Amornkitbamrung, V. and Songsiriritthigul, P. "Electron Affinity Study of Adamantane on Si(111)" *Applied Surface Science* 256 (Nov 2009): 934-936.
2. Noothongkaew, S., Supruangnet, R., Meevasana, W., Nakajima, H., Limpijumnong, S. and Songsiriritthigul, P. "In Situ Monitoring of ZnO Formation by Photoemission Spectroscopy" *Applied Surface Science*. 256.4 (Nov 2009): 980-983.

BL6a: DXL 1 article

1. Wisitsoraat, A., Mongpraneet, S., Phatthanakun, R., Chomnawang, N., Phokharatkul, D., Patthanasettakul, V. and Tuantranont, A. "Low-Cost and High-Resolution X-Ray Lithography Utilizing a Lift-Off Sputtered Lead Film Mask on a Mylar Substrate" *Journal of Micromechanics and Micromengineering* 20 (Jun 2010): 075026.

BL8: XAS 11 articles

1. Artkla, S., Wantala, K., Srinameb, B., Grisdanurak, N., Klysubun, W. and Wittayakun, J. "Characteristics and Photocatalytic Degradation of Methyl Orange on Ti-RH-MCM-41 and TiO₂/RH-MCM-41" *Journal of Chemical Engineering* 26 (Nov 2009): 1556-1562.
2. Khemthong, P., Klysubun, W., Prayoonpokarach, S. and Wittayakun, J. "Reducibility of Cobalt Species Impregnated on NaY and HY Zeolites" *Materials Chemistry and Physics* 121.1-2 (May 2010): 131-137.
3. Kuharuangrong, S. and Sittipon, P. "Physical Properties of Sr₃Fe_{2-x}Co_xO_{7-δ} (x = 0 – 1.0) as SOFC Anode" *Advanced Materials Research* 93-94 (2010): 549-552.
4. Loiha, S., Föttinger, K., Zorn, K., Klysubun, W., Rupprechter, G. and Wittayakun, J. "Catalytic Enhancement of Platinum Supported on Zeolite Beta for Toluene Hydrogenation by Addition of Palladium" *Journal of Industrial and Engineering Chemistry* 15.6 (Nov 2009): 819-823.
5. Sarakonsri, T., Thungprasert, S., Klysubun, W. and Vilaithong, T. "Microwave-Assisted Pt-Co-Cr/C Ternary Compound Preparation Applied as a Cathode Catalyst For PEMFC" *Physica Scripta* 2010.T139 (May 2010): 014007.
6. Siritapetawee, J., Pattanasiriwisawa, W. and Sirithephawee, U. "Trace Element of Analysis Hairs in Patients with Dementia" *Journal of Synchrotron Radiation* 17.2 (Mar 2010): 268-272.
7. Taweepreda, W., Nu-Mard, R., Pattanasiriwisawa, W., Songsiriritthigul, P., "Model Compound Vulcanization Studied by XANES" *Journal of Physics: conference series* 190 (Nov 2009): 12150.
8. Tongraar, A., T-Thienprasert, J., Rujirawat, S. and Limpijumnong, S. "Structure of the Hydrated Ca²⁺ and Cl⁻: A Combined X-Ray Absorption Measurements and QM/MM MD Simulations Study" *Physical Chemistry Chemical Physics* 12 (Sep 2010): 10876-10887.
9. T-Thienprasert, J., Rujirawat, S. Nukeaw, J. and Limpijumnong, S. "X-Ray Absorption Spectroscopy of Indium Nitride, Indium Oxide, and their Alloys" *Computational Materials Science* 49.1 (Jul 2010): S37-S42.
10. Thepsuwan, W. and Kuharuangrong, S. "Properties of La_{2-x}Sr_xMo_{2-y}W_yO_{9-δ} Oxide-Ion Conductor Synthesized by Citrate Gel Method" *Advanced Materials Research* 93-94 (Jan 2010): 509-512.
11. Wantana, K., Laokiat, L., Khemthong, P., Grisdanurak, N., Fukaya, K. "Calcination Temperature Effect on Solvothermal Fe-TiO₂ and Its Performance under Visible Light Irradiation" *Journal of the Taiwan Institute of Chemical Engineers* 41.5 (Sep 2010): 612-616.

Others 12 articles

1. Jungthawan, S., Kim, K. and Limpijumnong, S. "The Effects of Unit Cell Size on the Bandgap Range in the Direct Enumeration Study of $\text{Al}_x\text{Ga}_y\text{In}_{1-x-y}\text{P}$ Alloys" *Computational Materials Science* 49.1 (Jul 2010): S114-S118. .
2. Jungthawan, S., Limpijumnong, S. Collins, R., Kim, K., Graf, P.A. and Turner, J. A. "Direct Enumeration Studies of Band-Gap Properties of $\text{Al}_x\text{Ga}_y\text{In}_{1-x-y}\text{P}$ Alloys" *Journal of Applied Physics* 105 (Jun 2009): 123531.
3. Limpijumnong, S., Gordon, L., Miao, M., Janotti, A. and Van de Walle, Chris G. "Alternative Sources of p-type Conduction in Acceptor-Doped ZnO" *Applied Physics Letters* 97 (Aug 2010): 072112.
4. Limpijumnong, S., Reunchan, P., Janotti, A. and Van de Walle, Chris G. "Hydrogen Doping in Indium Oxide: An *ab Initio* Study" *Physical Review B* 80 (Nov 2009): 193202.
5. Meevasana, W., Zhou, X.J., Moritz, B., Chen, C-C, He, R.H., Fujimori, S-I., Lu, D.H., Mo, S-K. Moore, R.G. Baumberger, F., Devereaux, T.P., Van der Marel, D., Nagaosa, N., Zaanen, J. and Shen, Z-X. "Strong Energy-momentum Dispersion of Phonon-dressed Carriers in the Lightly Doped Band Insulator SrTiO_3 " *New Journal of Physics* 12 (Feb 2010): 023004.
6. Oonsivilai, A., Suthummapiwat, A. and Songsiriritthigul, P. "Investigation on Adjustable Mirror Bender Using Light Beam Size" *World Academy of Science, Engineering and Technology* 62 (Feb 2010): 95-99.
7. Oonsivilai, A., Suthummapiwat, A., Songsiriritthigul, P., Marunsri, B. and Kulworawanichpong, T. "Prototype of a Mirror Bender for Siam Photon Laboratory" *Wseas Transactions on Systems* 9.5 (May 2010): 549-558.
8. Sarasamak, K., Limpijumnong, S. and Lambrecht, Walter R.L. "First Principles Calculations of Elastic Properties Under Pressure in SiC" *Computational Materials Science* 49.1 (Jul 2010): S43-S46.
9. Sarasamak, K., Limpijumnong, S. and Lambrecht, Walter R.L. "Pressure-Dependent Elastic Constants and Sound Velocities of Wurtzite SiC, GaN, InN, ZnO and CdSe and their Relation to Phase Transition: First-principles Study" *Physical Review B* 82.3 (Jul 2010): 035201.
10. Songsiriritthigul, C., Pesatcha, P., Eijsink, Vincent G.H. and Yamabhai, M. "Directed Evolution of a *Bacillus Chitinase*" *Biotechnology Journal* 4.4 (Apr 2009): 501-509.
11. T-Thienprasert, J., Limpijumnong, S., Janotti, A., Van de Walle, C.G., Zhang, L., Du, M.-H. and Singh, D.J. "Vibrational Signatures of O_{Te} and $\text{O}_{\text{Te}}\text{-V}_{\text{Cd}}$ in CdTe: A First-Principles Study" *Computational Materials Science* 49.4 (Oct 2010): S242-S245.
12. West, D., Limpijumnong, S. and Zhang, S. B. "Band Structures and Native Defects of Ammonia Borane" *Physical Review B* 80 (Jan 2009): 064109.

SR Related 6 articles

1. Katekaew, S., Kuaprasert, B., Torikata, T., Kakuta, Y., Kimura, M., Yoneda, K. and Akaki, T. "Structure of the Newly Found Green Turtle Egg-White Ribonuclease" *Acta Crystallographica* F66 (Jul 2010): 755-759.
2. Nowicki, M. W., Kuaprasert, B., McNae, I. W., Morgan, H. P., Harding, M. M., Michels, P. A. M., Fothergill-Gilmore L. A. and Walkinshaw, M. D. "Crystal Structures of *Leishmania mexicana* Phosphoglycerate Mutase Suggest a One-Metal Mechanism and a New Enzyme Subclass" *Journal of Molecular Biology* 394.3 (Dec 2009): 535-543.
3. Seshadri, S., Akiyama, T., Opassiri, R., Kuaprasert, B. and Cairns, J. K. "Structural and Enzymatic Characterization of Os3BGlu6, a Rice β -Glucosidase Hydrolyzing Hydrophobic Glycosides and (1 $\rightarrow$ 3)- and (1 $\rightarrow$ 2)- Linked Disaccharide^s ¹[C][W][OA] " *Plant Physiology* 151 (Jul 2009): 47-58.

4. Songsiriritthigul, C., Buranabanyat, B., Haltrich, D. and Yamabhai, M. "Efficient Recombinant Expression and Secretion of a Thermostable GH26 Mannan Endo-1,4- β -Mannosidase from *Bacillus licheniformis* in *Escherichia coli*" *Microbial Cell Factories* 9.20 (Apr 2010): 1-13.
5. Songsiriritthigul, C., Lapboonrueng, S., Pechsrichuang, P., Pesatcha, P. and Yamabhai, M. "Expression and Characterization of *Bacillus licheniformis* Chitinase (ChiA), Suitable for Bioconversion of Chitin Waste" *Bioresource Technology* 101.11 (Jun 2010): 4096-4103.
6. Tanthanuch, W., Thumanu, K., Lorthongpanich, C., Parnpai, R. and Heraud, P. "Neural Differentiation of Mouse Embryonic Stem Cells Studies by FTIR Spectroscopy" *Journal of Molecular Structure* 967.1-3 (Apr 2010): 189-195.

IR end station 1 article

1. Sutapun, W., Suppakarn, N. and Ruksakulpiwat, Y. "Study of Characteristic of Vetiver Fiber Before and After Alkaline Treatment" *Advanced Materials Research* 123-125 (Aug 2010): 1191-1194.