

研究著作完整目錄

A. Refereed Journal Articles

1. Yu-Jin Siao, **Po-Liang Liu***, and Yen-Ting Wu, “*Ab initio* Study of Atomic Hydrogen on ZnO Surfaces”, Applied Physics Express, Vol. 4, pp. 125601, 2011. (21/118, *PHYSICS, APPLIED, IF: 2.778@2010, Times Cited:0*)
2. **Po-Liang Liu***, Yu-Jin Siao, Yen-Ting Wu, Chih-Hao Wang and Chien-Shun Chen, “Structural, electronic and energetic properties of GaN[0001]/Ga₂O₃[100] heterojunctions: A first-principles density functional theory study”, Scripta Materialia, Vol. 65, pp. 465-468, 2011. (2/70, *METALLURGY & METALLURGICAL ENGINEERING, IF: 2.949@2009, Times Cited:0*)
3. **Po-Liang Liu*** and Yu-Jin Siao, “Ab initio study on preferred growth of ZnO”, Scripta Materialia, Vol. 64, pp. 483-485, 2011. (2/70, *METALLURGY & METALLURGICAL ENGINEERING, IF: 2.949@2009, Times Cited:0*)
4. **Po-Liang Liu***, “Highly Strained Metastable Heterojunction between Wurtzite GaN(0001) and Cubic CrN(111)”, Journal of The Electrochemical Society, Vol. 157, pp. D577-D581, 2010. (1/16, *MATERIALS SCIENCE, COATINGS & FILMS, IF: 2.241@2009, Times Cited:0*)
5. Yu-Li Tsai, Ray-Hua Horng*, **Po-Liang Liu**, Ming-Chun Tseng, Der-Yuh Lin, Dong-Sing Wu, and Xinhe Zheng, “Elimination of phase separation in MOCVD-grown GaInP epilayers by compositionally step-graded Ga_{1-x}In_xP multilayers”, Journal of Applied Physics, Vol. 106, pp. 063517, 2009. (24/105, *PHYSICS, APPLIED, IF: 2.072@2009, Times Cited: 0*)
6. Yu-Li Tsai, Ray-Hua Horng*, Ming-Chun Tseng, Chia-hao Kuo, **Po-Liang Liu**, Dong-Sing Wu, and Der-Yuh Lin, “Phase separation phenomenon in MOCVD-grown GaInP epitaxial layers”, Journal of Crystal Growth, Vol. 311, pp. 3220-3224, 2009. (12/25, *CRYSTALLOGRAPHY, IF: 1.534@2009, Times Cited:*

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7. S. Y. Huang, R.-H. Horng*, **P. L. Liu**, J. Y. Wu, H. W. Wu, and D. S. Wu
“Thermal Stability Improvement of Vertical Conducting Green Resonant-Cavity
Light-Emitting Diodes on Copper Substrates”, IEEE Photonics Technology Letters,
Vol. 20, pp.797-799, 2008. (*34/105, PHYSICS, APPLIED, 26/227, IF:
1.815@2009, Times Cited: 4*)
 8. **Po-Liang Liu**, A. V. G. Chizmeshya*, and John Kouvetakis, “Structural, Electronic
and Energetic Properties of SiC[111]/ZrB₂[0001] Heterojunctions: A First
Principles DFT Study”, Physical Review B, Vol. 77, pp.035326, 2008. (*12/66,
PHYSICS, CONDENSED MATTER, IF: 3.475@2009, Times Cited: 1*)
 9. **Po-Liang Liu***, “The Relation Between the Distribution of Dihedral Angels and
the Wetting Angle during Liquid Phase Sintering”, Computational Materials
Science, Vol. 36 No. 4, pp. 468-473, 2006. (*79/212, MATERIALS SCIENCE,
MULTIDISCIPLINARY, IF: 1.522@2009, Times Cited: 1*)
 10. Z. T. Wang, Y. Yamada-Takamura, Y. Fujikawa, T. Sakurai, Q. K. Xue, J. Tolle,
P.-L. Liu, A. V. G. Chizmeshya, J. Kouvetakis, and I.S.T. Tsong*, “Surface and
interface studies of GaN epitaxy on Si(111) via ZrB₂ buffer layers”, Physical
Review Letters, Vol. 95, pp.266105, 2005. (*6/71, PHYSICS,
MULTIDISCIPLINARY, IF: 7.328@2009, Times Cited: 10*)
 11. **Po-Liang Liu**, A. V. G. Chizmeshya, John Kouvetakis, and Ignatius S. T. Tsong*,
“First-Principles Studies of GaN(0001) Heteroepitaxy on ZrB₂(0001)”, Physical
Review B, Vol. 72, pp.245335, 2005. (*12/66, PHYSICS, CONDENSED MATTER,
IF: 3.475@2009, Times Cited: 9*)
 12. Rahul Trivedi, **Po-Liang Liu**, Radek Roucka, John Tolle, A.V.G. Chizmeshya, I. S.
T. Tsong and J. Kouvetakis*, ”Mismatched Heteroepitaxy of Tetrahedral
Semiconductors with Si via ZrB₂ Templates”, Chemistry of Materials, Vol. 17,

No.18, pp.4647-4652, 2005. (*14/212, MATERIALS SCIENCE, MULTIDISCIPLINARY, IF: 5.368@2009, Times Cited: 3*)

B. Conference Papers

1. **Po-Liang Liu***, Yen-Ting Wu, and Yu-Jin Siao, "Ab initio Study of the Hydrogen Molecule on ZnO Surfaces", 2011 MRS Spring Meeting proceedings, Vol. 1327, mrs11-1327-g08-04 (2011 MRS Spring Meeting and Exhibit, San Francisco, California, U.S.A., April 25 - 29, 2011).
2. C. H. Wang* and **P. L. Liu**, "The Effect of Methyl Radical on Hydrogen Storage of Carbon Nanotubes", The Physical Society of Republic of China, HP-054 (2011).
3. **Po-Liang Liu***, Yu-Jin Siao, and Ming-Hsien Lee, "Theoretical Studies in Epitaxial Stabilization of ZnO-based Light-emitting Semiconductors", NSTI-NanoTech 2010, Vol. 1, pp.129-132 (2010 TechConnect World Conference and Trade Show, Anaheim, California, U.S.A. June 21-25, 2010).
4. **劉柏良***、林舜天, "新的液相燒結模型-多球體模型", 粉末冶金會刊, Vol. 27, No. 2, pp.91-94, 2002.

C. Invited Articles

1. 蕭宇晉、洪永安、王致皓、**劉柏良***, "第一原理計算技術在磊晶薄膜工程之發展與應用", 電子資訊會刊, **Vol. 16, No. 2**, pp.16-21, 2011。