

## Publication List

### Refereed Journal Paper

1. Chii-Chang Chen, **Tao-Hung Hsueh**, Yi-Sheng Ting, Gou-Chung Chi, Chin-An Chang, and S. C. Wang, "Thermal annealing effects on the optical gain of InGaN/GaN quantum well structures," **Solid-State Electronics**. 47, 575 (2003).
2. H. C. Kuo, Y. S. Chang, F. Y. Lai, **T. H. Hsueh**, L. H. Lai, and S. C. Wang, "High speed modulation of 850 nm InGaAsP/InGaP strain-compensated VCSELs," **Electronics Letters** 39, 1051 (2003).
3. Fang-I Lai, **Tao-Hung Hsueh**, Ya-hsien Chang, Wen-chun Shu, Li-Hung Lai, H. C. Kuo and S. C. Wang, "Performance of 850 nm VCSEL utilizing Si implant induced disordering," **Solid State Electronics** 47, 1805 (2003).
4. **T. H. Hsueh**, H. C. Kuo, F. I. Lai, L. H. Lai and S. C. Wang, "High speed characteristics of large area single transverse mode vertical cavity surface emitting lasers," **Electronics Letters** 39, 1519 (2003).
5. H. W. Huang, C. C. Kao, **T. H. Hsueh**, C. C. Yu, C. F. Ling, J. T. Chu, H. C. Kuo, S. C. Wang, "Fabrication of GaN-based nanorod light emitting diodes using self-assemble nickel nano-mask and inductively coupled plasma," **Materials Science & Engineering B** 113, 125 (2004).
6. F. I. Lai, Y. H. Chang, **T. H. Hsueh**, H. W. Huang, L. H. Lai, H. C. Kuo, S. C. Wang, "Improvement of knick characteristics performance of GaAs VCSEL with a indium-tin-oxide top transparent overcoating," **Materials Science & Engineering B** 113, 203 (2004).
7. F. I. Lai, **T. H. Hsueh**, Y. H. Chang, H. C. Kuo, S. C. Wang, L. H. Lai, C. P. Song, H. P. Yang, "10 Gb/s single-mode vertical-cavity surface-emitting laser with large aperture and oxygen implantation," **Semiconductor Science and Technology** 19, L86 (2004).
8. **T. H. Hsueh**, H. W. Huang, C. C. Kao, Y. H. Chang, M-C O. Yang, H. C. Kuo and S. C. Wang, "Characterizaion of InGaN/GaN Multiple Quantum Well Nanorods Fabricated by Plasma Etching with Self-Assembled Nickel Metal Nanomasks," **Japanese Journal of Applied Physics** 44, 2661 (2005).
9. Y. H. Chang, **T. H. Hsueh**, F. I. Lai, C. W. Chang, C. C. Yu, H. W. Huanf, C. F. Len, H. C. Kuo, and S. C. Wang, "Fabrication and Micro-photoluminescence Investigation of Mg-Doped Gallium Nitride Nanorods," **Japanese Journal of Applied Physics** 44, 2657 (2005).
10. **T. H. Hsueh**, H.W. Huang, F. I. Lai, J. K. Sheu, Y. H. Chang, H. C. Kuo, and S. C. Wang, "Photoluminescence from  $\text{In}_{0.3}\text{Ga}_{0.7}\text{N}/\text{GaN}$  multiple-quantum-well nanorods," **Nanotechnology** 16, 448 (2005).
11. **T. H. Hsueh**, J. K. Sheu, H. W. Huang, J. Y. Chu, C. C. Kao, H. C. Kuo, and S. C. Wang, "Enhancement in Light Output of InGaN-Based Microhole Array Light-Emitting Diodes," **IEEE Photonics Technology Letters** 17, 1163 (2005).

## Proceedings of Conference

1. **Tao-Hung Hsueh**, Chii-Chang Chen, Li-Shei Yeh, Chien-Chieh Lee, Gou-Chung Chi, Jinn-Kong Sheu, Chin-An Chang, "Piezoelectric field in InGaN/GaN multiple quantum well structure", IEDMS, Taiwan (2000).
2. H. H. Huang, C. C. Yu, J. Y. Tsai, **T. H. Hsueh**, C. F. Chu, C. F. Lin, and S. C. Wang, "Dry etching of GaN and InGaN laser structure using inductively coupled plasma," 2002 MRS Spring Meeting, U.S.A., paper K7.8, April (2002).
3. C. C. Yu, C. F. Chu, J. Y. Tsai, H. W. Huang, **T. H. Hsueh**, C. f. Lin, and S. C. Wang, "Fabrication of controllable size and density GaN nanorods by inductively coupled plasma reactive ion etching," International Symposium on Compound Semiconductors(ISCS 2002), Switzerland, paper Tu-P-31, Oct. (2002).
4. C. C. Yu, Y. S. Chang, **T. H. Hsueh**, C. F. Lin, H. C. Kuo and S. C. Wang, "Fabrication and characterization of gallium nitride nanorods," MSM 2003, U.S.A., paper PE-24, March (2003).
5. **Tao-Hung Hsueh**, Hao-Chung Kuo, Fang-I Lai, Li-Hung Lai, and S.C. Wang, "High Performance of Large-Area Single-Mode Vertical-Cavity Surface-Emitting Lasers," CLEO U.S.A. (2003).
6. **T. H. Hsueh**, Y. S. Chang, F. Lai, H. W. Huang, M. C. Ou-yang, C. W. Chang, H. C. Kuo, S. C. Wang, J. K. Sheu, "Fabrication and emission characteristic of InGaN/GaN multiple quantum wells nanorods," CLEO U.S.A. (2004).
7. Fang-I Lai, Li-Hong Laih, **T. H. Hsueh**, S. P. Tseng, H. C. Kuo, and S. C. Wang, "Performances and reliability of 850nm VCSELs with various offset in gain peak and Fabry-Perot dip," CLEO/PR 2003, Taipei, paper THP-(2)-5, December (2003).
8. **Tao-Hung Hsueh**, Hao-Chung Kuo, Fang-I Lai, Li-Hung Lai, and S. C. Wang, "High performance large-area single-mode vertical-cavity surface-emitting lasers," CLEO/PR 2003, paper W2B-(2)-3, December (2003).
9. **T. H. Hsueh**, H. W. Huang, C. C. Kao, Y. H. Chang, M. C. O-Yang, H. C. Kuo and S. C. Wang, "Fabrication of InGaN multi-quantum-well nanorod by Ni nano-mask," Solid State Devices and Materials, Japan (2004).
10. **Tao-Hung Hsueh**, Hung-Wen Huang, Chih-Chiang Kao, Ya-Hsien Chang, Miao-Chia Ou-Yang, Hao-Chung Kuo and Shing-Chung Wang, "InGaN/GaN Multi-Quantum-Well Nanorods Fabricated by Plasma Etching Using Self-assembled Nickel Nano-masks" IUMRS, Taiwan ID 168, (2004).
11. **Tao-Hung Hsueh**, Hung-Wen Huang, Chih-Chiang Kao, Ya-Hsien Chang, Miao-Chia Ou-Yang, Hao-Chung Kuo and Shing-Chung Wang, "Fabrication and characterization of InGaN-based nanorods by plasma etching with nanoscale nickle metal islands", ICON, Taipei, NAC106, (2004).
12. H. W. Huang, **T. H. Hsueh**, J. K. Sheu, H. C. Kuo and S. C. Wang, "Photoluminescence from localized states in InGaN nanorods", session 9, APWS 2005, HsinChu (2005).
13. **T. H. Hsueh**, J. K. Sheu, J. Y. Chu, H. W. Huang, C. C. Kao, H. C. Kuo and S. C. Wang, "Characteristics of Light Output Efficiency in InGaN-based Micro-Light-Emitting Diodes", APWS (2005).