

PUBLICATION LIST

JEN-INN CHYI (蔡振瀛)

(B) CONFERENCE PAPER

International conferences:

1. J. Klem, J.-I. Chyi, H. Morkoc, Y. Ihm, and N. Otsuka, "Electrical Characteristics of MBE-grown GaAsSb on InP and Correlation with Film Microstructure", SPIE Proceeding, Vol.877, pp.35, 1988.
2. J.-I. Chyi, S. Kalem, N. Kumar, C. Litton and H. Morkoc, "MBE Growth and Characterization of InSb and InAsSb Grown on GaAs", Electronic Materials Conference, Boulder, Colorado, 1988.
3. D. Huang, J.-I. Chyi, s. Kalem, and H. Morkoc, "Excitonic Absorption in P-type Modulation Doped GaAs Quantum Wells", the Meeting of the American Physical society, St. Louis, Missouri, 1988.
4. J.-I. Chyi, D. Biswas, S. Lyer, N. Kumar, H. Morkoc, R. Bean, K. Zanio, R. Grober, and D. Drew, "MBE Growth and Characterization of InSb on Si", 9th NAMBE Workshop, West Lafayette, Indiana, 1988.
5. C. J. Kiely, J.-I. Chyi, A. Rockett, and H. Morkoc, "High Resolution Electron Microscopy Studies of MBE Grown InSb Layers on GaAs", MRS Symposium Proceedings Series, Vol.139, Edited W. Krakow, F.A. Ponce, and D.J. Smith. 1989.
6. J.-I. Chyi, J. Chen, N. Kumar, C. Kiely, C. K. Peng, A. Rockett, and H. Morkoc, "Low Resistance Nonalloyed Ohmic Contacts on P-type GaAs Using GaSb/GaAs Strained-Layer Superlattices", Electronic Materials Conference, Cambridge, Massachusetts, 1989.
7. J. Chen, G.B. Gao, D. Huang, J.-I. Chyi, M. S. Unlu, and H. Morkoc, "Light Emission from the GaAs/AeGaAs HBT Collector Junction at Breakdown", 47th Derice Research Conference, Cambridge, Massachusetts, 1989.
8. C. J. Kiely, A. Rockett, J.-I. Chyi, and H. Morkoc, "The Initial Stages of Growth of InSb on GaAs by MBE-A Highly Lattice Mismatched Heterointerface", MRS Symposium Proceedings Series, Vol.159, 63, 1990.
9. M. S. Unlu, J.-I. Chyi, K. Kishino, J. Reed, S.N. Mohammad, and H. Morkoc, "Gain and Spectral Response of MBE-grown AlGaAs/GaAs Heterojunction Bipolar Phototransistor with an Intermediate InGaAs Layer in the Collector", CLEO, Anaheim, 1990.
10. M.-T. Yang, R.-M. Lin, Y.-J. Chan, J.-L. Shieh, and J.-I. Chyi, "Thermal Stability of Strained AlGaAs/In_xGa_{1-x}As (0.15<x<0.25) Doped-Channel Structures", 20th Intl. Symposium on GaAs and Related Compounds, Freiburg, Germany, 1993.
11. J.-I. Chyi, T.-S. Wei, J.-W. Hong, W. Lin, and Y.-K. Tu, "High Performance InGaAs MSM Photodetectors", The First International Symposium on Lasers and Optoelectronics Technology & Applications, Singapore, 1993.
12. Y. J. Chan, J.-I. Chyi, C. S. Wu, H.-P. Hwang, M. T. Yang, R.-M. Lin, and J.-L. Shieh, "In_{0.29}Al_{0.71}As/In_{0.3}Ga_{0.7} Heterostructure Devices Grown on GaAs Substrates with a Metamorphic Buffer Design", 1994 Device Research Conf., Boulder, Colorado, U.S.A. 1994.
13. J.-I. Chyi, R.-J. Lin, R.-M. Lin, J.-L. Shieh, and J.-W. Pan, "Schottky Barrier Heights of In_xAl_{1-x}As (0<x<0.35) Epilayers on GaAs", 1994 Intl. Conf. Solid State Devices and Materials, Yokohama, Japan, 1994.
14. J.-W. Pan, J.-L. Shieh, J.-H. Gau, J.-I. Chyi, J.-C. Lee, and K.-J. Ling, "The Study of the Optical Properties of In(Al_xGa_{1-x})As by Variable Angle Spectroscopic Ellipsometry", 7th Intl. Conference on InP and Related Materials, Sapporo, Hokkaido, Japan, 1995.
15. C.-S. Wu, Y.-J. Chan, T.-H. Gan, J.-L. Shieh, and J.-I. Chyi, "In(Al_{0.9}Ga_{0.1})As/InGaAs HEMTs on InP Substrates", 7th Intl. Conference on InP and Related Materials, Sapporo, Hokkaido, Japan, 1995.
16. M.-T. Yang, Y.-J. Chan, J.-L. Shieh, and J.-I. Chyi, "Lattice-matched InAlAs/InGaAs Doped-Channel FETs", 7th Intl. Conference on InP and Related Materials, Sapporo, Hokkaido, Japan, 1995.
17. R.-H. Yuang, H.-C. Shieh, Y.-J. Chien, Y.-J. Chan, J.-I. Chyi, W. Lin, and Y.-K. Tu, "High-Performance Large-Area Pseudomorphic InGaP/InP/InGaAs MSM PDs", Tenth Intl. Conf. on Integrated Optics and Optical Fibre Communication, Hong Kong, 1995.
18. J.-I. Chyi, J.-H. Gau, J.-L. Shieh, J.-W. Pan, Y.-J. Chan, C. C. Chang, and F. Y. Chuang, "Characteristics of InAlGaAs/AlGaAs Strained Quantum Well Lasers Grown by MBE", The 1994 IUMRS Intl. Conf. on Electron. Materials, Hsinchu, Taiwan, R.O.C. 1994.
19. B. F. Chen, Y. A. Chen, T. S. Jen, C. T. Kuo, W. C. Tsay, J.-I. Chyi, and J. W. Hong, "Characteristics of Light-Emitting Diodes Based on Porous Silicon", 1994 IUMRS Intl. Conf. on Electron. Materials, Hsinchu, Taiwan, R.O.C. 1994.
20. J.-L. Shieh, J.-I. Chyi, R.-J. Lin, J.-W. Pan, and R.-M. Lin, "Band Offsets of In_{0.3}Ga_{0.7}As/In_{0.29}Al_{0.71}As Heterojunction Grown on GaAs Substrate", ICSFS-7, Hsinchu, Taiwan, R.O.C. 1994.
21. W. C. Lee, T. M. Hsu, and J.-I. Chyi, "Characterization of Low Temperature GaAs Grown by MBE", ICSFS-7, Hsinchu, Taiwan, R.O.C. 1994.
22. J.-L. Shieh, J.-I. Chyi, R.-M. Lin, and J.-W. Pan, "Residual Strain and Crystallographic Tilt of In_xGa_{1-x}As and In_xAl_{1-x}As (0<x<0.3) Epilayers Grown on GaAs Sunstrates", 22nd Intl. Sym. on Compound Semiconductors", Cheju Island, Korea, 1995.

23. H.-P. Hwang, J.-L. Shieh, J.-W. Pan, C.-C. Chou, and J.-I. Chyi, "DC and Microwave Characteristics of In_{0.3}(Al_xGa_{1-x})_{0.7}As/In_{0.3}Ga_{0.7}As Heterojunction Bipolar Transistors Grown on GaAs", 22nd Intl. Sym. on Compound Semiconductors", Cheju Island, Korea, 1995.
24. J.-I. Chyi, J.-H. Gau, S.-K. Wang, J.-L. Shieh, and J.-W. Pan, "Enhanced Carrier and Optical Confinement Quantum Well Laser with Graded Multi-Quantum Barrier", 22nd Intl. Sym. on Compound Semiconductors", Cheju Island, Korea, 1995.
25. R.-H. Yuang, J.-I. Chyi, W. Lin, and Y.-K. Tu, "High-Responsivity InGaAs Metal-Semiconductor-Metal Photodetectors with Semi-Transparent Schottky Contacts", 22nd Intl. Sym. on Compound Semiconductors", Cheju Island, Korea, 1995.
26. C.-S. Wu, Y.-J. Chan, C.-H. Chen, J.-L. Shieh, and J.-I. Chyi, "In(Al_{1-x} Ga_x)As/InGaAs (0<x<1) Heterostructures and Its Application on HEMTs", 22nd Intl. Sym. on Compound Semiconductors", Cheju Island, Korea, 1995.
27. J.-W. Pan, and J.-I. Chyi, "Analysis of the Temperature Dependence of 1.3 μ m InAlGaAs/InP Multiple Quantum Well Lasers", 8th Intl. Conference on InP and Related Materials, Schwabisch Gmund, Germany, 1996.
28. J.-I. Chyi, T.-E. Nee, C.-T. Lee, J.-L. Shieh, and J.-W. Pan, "Formation of Self-Aligned Quantum Dots on GaAs by Molecular Beam Epitaxy", Ninth International Conference on Molecular Beam Epitaxy, Malibu, California, U.S.A., 1996.
29. R.-H. Yuang, Y.-J. Chien, J.-L. Shieh, J.-I. Chyi, and J.-S. Chen, "GaAs Metal-Semiconductor-Metal Photodetectors with Recessed Cathodes and/or Anodes", 23rd Intl. Sym. on Compound Semiconductors, St. Petersburg, Russia, 1996.
30. H.-P. Hwang, Y.-S. Cheng, J.-L. Shieh, J.-W. Pan, and J.-I. Chyi, "High Thermal Conductive Passivation Films on AlGaAs/GaAs Heterojunction Diodes and Bipolar Transistors", 23rd Intl. Sym. on Compound Semiconductors, St. Petersburg, Russia, 1996.
31. J.-L. Shieh, M.-N. Chang, Y.-S. Cheng, and J.-I. Chyi, "Defect Study on Strain-Relaxed In_xAl_{1-x}As Epilayers (x<0.4) Grown on GaAs", 23rd Intl. Sym. on Compound Semiconductors, St. Petersburg, Russia, 1996.
32. L.-S. Lai, Y.-J. Chan, J.-W. Pan, J.-L. Shieh, J.-I. Chyi, "Reduced Impact Ionization by Using In(Al_xGa_{1-x})As (x=0.1, 0.2) Channel in InP HEMTs", 23rd Intl. Sym. on Compound Semiconductors, St. Petersburg, Russia, 1996.
33. J.-W. Pan, S.-K. Wang, J.-I. Chyi, and G.-W. Liaw, "Studies of the Effects of Multi-Stack Multiquantum Barrier on the Properties of 1.3 μ m AlGaInAs/InP Quantum Well Lasers", 24th Intl. Sym. Compound Semiconductors, San Diego, U.S.A., 1997.
34. T.-E. Nee, N.-T. Yeh, J.-I. Chyi, and C.-T. Lee, "Matrix-Dependent Structural and Photoluminescence Properties of In_{0.5}Ga_{0.5}As Quantum Dots Grown by Molecular Beam Epitaxy", Intl. Workshop on Nano-Physics and Electronics, Tokyo, Japan, 1997.
35. L. S. Lai, Y. J. Chan, J.-W. Pan, and J.-I. Chyi, "Fully Quaternary In(Al_{1-x} Ga_x)As/In(Al_xGa_{1-x})As (x=0, 0.1, 0.2) Heterostructures on InP for HFETs", 10th Intl. Conference on InP and Related Materials, Tsukuba, Japan, 1998.
36. N.-T. Yeh, T.-E. Nee, P.-W. Shiao, M.-N. Chang, J.-I. Chyi, and C.-T. Lee, "Photoluminescence Characteristics of Self-Assembled In_{0.5}Ga_{0.5}As Quantum Dots on Vicinal GaAs Substrates", 2nd Intl. Symposium on Formation, Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, 1998.
37. T.-E. Nee, N.-T. Yeh, J.-I. Chyi, and C.-T. Lee, "Room-Temperature Operation of In_{0.5}Ga_{0.5}As Quantum Dot Lasers Grown on Misoriented GaAs Substrates by Molecular Beam Epitaxy", 2nd Intl. Symposium on Formation, Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, 1998.
38. W.-H. Chang, T.-M. Hsu, K.-F. Tsai, T.-E. Nee, J.-I. Chyi, and N.-T. Yeh, "Excitation Density and Temperature Dependent Photoluminescence of InGaAs Self-Organized Quantum Dots", 2nd Intl. Symposium on Formation, Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, 1998.
39. J.-W. Pan, M.-H. Chen, and J.-I. Chyi, "High Performance Phosphorus-Free 1.3 μ m AlGaInAs/InP MQW Lasers", Tenth International Conference on Molecular Beam Epitaxy, Cannes, France, 1998.
40. T.-E. Nee, N.-T. Yeh, J.-M. Lee, J.-I. Chyi, and C.-T. Lee, "High Characteristic Temperature Be-doped In_{0.5}Ga_{0.5}As Quantum Dot Lasers Grown on GaAs Substrates by Molecular Beam Epitaxy", Tenth International Conference on Molecular Beam Epitaxy, Cannes, France, 1998.
41. N.-T. Yeh, T.-E. Nee, and J.-I. Chyi, "Characterization of In_{0.5}Ga_{0.5}As Quantum Dot p-i-n Structures with Different Matrices", Tenth International Conference on Molecular Beam Epitaxy, Cannes, France, 1998.
42. M. N. Chang, K. C. Hsieh, T.-E. Nee, C.-C. Chuo, and J.-I. Chyi, "Behavior of Arsenic Precipitation in Low-Temperature Grown III-V Arsenides", Tenth International Conference on Molecular Beam Epitaxy, Cannes, France, 1998.
43. N.-T. Yeh, J.-M. Lee, P.-W. Shiao, T.-E. Nee, and J.-I. Chyi, "Self-Assembled In_{0.5}Ga_{0.5}As Quantum Dot Lasers with Doped Active Region", OSA Quantum Optoelectronics Meeting, Aspen, U.S.A., 1999.

44. J.-I. Chyi, "MBE Growth and Characterization of InGaAs Quantum Dot Lasers", 5th IUMRS Intl. Conf. on Advanced Materials, Beijing, P.R.C., 1999. (invited)
45. C.-M. Lee, H.-F. Hong, C.-C. Chuo, T.-E. Nee, and J.-I. Chyi, "Behavior of Mg in GaN Grown by Metal-Organic Chemical Vapor Deposition", Intl. Conf. on Nitride Semi-conductors", Montpellier, France, 1999.
46. C. F. Lin, H. C. Cheng, G. C. Chi, C.-C. Chuo, C.-M. Lee, and J.-I. Chyi, "Photoconductivity of AlGaN/GaN and GaN/InGaN Modulation Doped Field-Effect Transistors", Intl. Conf. on Nitride Semiconductors, Montpellier, France, 1999.
47. N.-T. Yeh, T.-E. Nee, and J.-I. Chyi, "Matrix Dependence of Strain Induced Wavelength Shift in Self-Assembled InAs Quantum Dot Heterostructures", 18th North American Conf. on Molecular Beam Epitaxy, Banff, Canada. 1999.
48. M. N. Chang, K. C. Hsieh, T.-E. Nee, J.-I. Chyi, W. C. Lee, and T. M. Hsu, "Suppression and Enhancement of Arsenic Precipitation in Low-Temperature Grown Heterostructures", 18th North American Conf. on Molecular Beam Epitaxy, Banff, Canada. 1999.
49. M. Hong, K. A. Anselm, J. P. Mannaerts, J. Kwo, A. Y. Cho, A. R. Kortan, C.-M. Lee, J.-I. Chyi, and T. S. Lay, "Properties of $\text{Ga}_2\text{O}_3(\text{Gd}_2\text{O}_3)/\text{GaN}$ MIS Diodes", 18th North American Conf. on Molecular Beam Epitaxy, Banff, Canada. 1999.
50. G. T. Dang, A. P. Zhang, M. M. Mshewa, F. Ren, J.-I. Chyi, C.-M. Lee, C.-C. Chuo, G. C. Chi, J. Han, S. N. G. Chu, R. G. Wilson, X. A. Cao, and S. J. Pearton, "High Breakdown Voltage Au/Pt/GaN Schottky Diodes", National American Vacuum Society Symposium, Seattle, U.S.A., 1999.
51. X. A. Cao, G. T. Dang, A. P. Zhang, F. Ren, S. J. Pearton, C.-M. Lee, C.-C. Chuo, J.-I. Chyi, G. C. Chi, J. Han, S. N. G. Chu, and R. G. Wilson, "Temperature Dependent Performance of GaN Schottky Rectifiers", Intl. Conf. SiC and Related Materials, Research Triangle Park, U.S.A., 1999.
52. S. J. Pearton, F. Ren, J. Han, J.-I. Chyi, C.-C. Chuo, C.-M. Lee, G. T. Dang, A. P. Zhang, X. A. Cao, S. N. G. Chu, R. G. Wilson, and J. M. Van Hove, "GaN-Based Materials for Microelectronics", Intl. Semicon. Device Research Symposium, Charlottesville, U.S.A., 1999.
53. S. J. Pearton, H. Cho, F. Ren, J.-I. Chyi, J. Han, R. G. Wilson, "Properties and Effects of Hydrogen in GaN", MRS Fall Meeting, Boston, U.S.A., 1999.
54. C.-C. Chuo, C.-M. Lee, T.-E. Nee, and J.-I. Chyi, "Alloy Fluctuation and Piezoelectric Effect in Thermal Annealed High Indium Content InGaN/GaN Quantum Wells", 3rd Intl. Symposium on Blue Laser and Light Emitting Diodes, Berlin, Germany. 2000.
55. S. J. Pearton, X. A. Cao, H. Cho, K. P. Lee, C. Monier, F. Ren, G. Dang, A. P. Zhang, W. Johnson, J. R. LaRoche, B. P. Gila, C. R. Abernathy, R. J. Shul, A. G. Baca, J. Han, J.-I. Chyi, and J. M. Van Hove, "Device Processing for GaN High Power Electronics", MRS Spring Meeting, San Francisco, U.S.A., 2000.
56. M. Hong, H. M. Ng, J. Kwo, A. R. Kortan, J. N. Baillargeon, K. A. Anselm, J. P. Mannaerts, A. Y. Cho, C.-M. Lee, J.-I. Chyi, T. S. Lay, F. Ren, C. R. Abernathy, and S. J. Pearton, "Insulator/GaN Heterostructures of Low Interfacial Density of States", MRS Spring Meeting, San Francisco, U.S.A., 2000.
57. X. A. Cao, G. T. Dang, A. P. Zhang, F. Ren, S. J. Pearton, J. Han, J.-I. Chyi, C.-M. Lee, and C.-C. Chuo, "GaN Power Rectifiers", MRS Spring Meeting, San Francisco, U.S.A., 2000.
58. S. J. Pearton, F. Ren, A. P. Zhang, G. Dang, A. X. Cao, H. Cho, C. R. Abernathy, J. Han, A. G. Baca, C. Monier, P. Chang, R. J. Shul, L. Zhang, J. M. Van Hove, P. P. Chow, J. J. Klaassen, C. J. Polley, A. M. Wowchack, D. J. King, S. N. G. Chu, M. Hong, A. Y. Polyakov, N. B. Smirnov, A. V. Govorkov, J.-I. Chyi, C.-M. Lee, T.-E. Nee, C.-C. Chuo, G. C. Chi, and J. M. Redwing, "GaN Electronics for High Power, High Temperature Application", 197th Electrochemical Society Meeting, Toronto, Canada, 2000.
59. M. Hong, H. M. Ng, J. Kwo, A. R. Kortan, J. N. Baillargeon, S. N. G. Chu, J. P. Mannaerts, A. Y. Cho, F. Ren, C. R. Abernathy, S. J. Pearton, and J.-I. Chyi, "Low D_{it} Dielectric/GaN MOS Systems", 197th Electrochemical Society Meeting, Toronto, Canada, 2000.
60. S. J. Pearton, F. Ren, A. P. Zhang, G. Dang, A. X. Cao, K. P. Lee, H. Cho, B. P. Gila, J. W. Johnson, C. Monier, C. R. Abernathy, J. Han, A. G. Baca, J.-I. Chyi, C.-M. Lee, T.-E. Nee, C.-C. Chuo, G. C. Chi, and S. N. G. Chu, "GaN Electronics for High Power, High Temperature Application", E-MRS, Strasbourg, France, 2000.
61. S. J. Pearton, F. Ren, A. P. Zhang, G. Dang, A. X. Cao, K. P. Lee, H. Cho, B. P. Gila, J. W. Johnson, C. Monier, C. R. Abernathy, J. Han, A. G. Baca, J.-I. Chyi, C.-M. Lee, T.-E. Nee, C.-C. Chuo, G. C. Chi, and S. N. G. Chu, "GaN High Power Devices", 198th Electrochemical Society Meeting, Phoenix, U.S.A., 2000.
62. C.-C. Chuo, C.-M. Lee, and J.-I. Chyi, "Thermal Stability of InGaN/GaN Multiple Quantum Wells Grown by Metalorganic Chemical Vapor Deposition", Intl. Workshop Nitride Semiconductors, Nagoya, Japan, 2000.
63. J.-M. Lee, C.-C. Chuo, J.-F. Dai, X.-F. Zheng, and J.-I. Chyi, "Temperature Dependence of the Radiative Recombination zone in GaN/InGaN Multiple-Quantum-Well Light Emitting Diodes", Intl. Workshop Nitride Semiconductors, Nagoya, Japan, 2000.
64. S. W. Feng, C. C. Liao, C. C. Yang, Y. S. Lin, K. J. Ma, C.-C. Chuo, C.-M. Lee, and J.-I. Chyi, "Optical Characterization for Indium Aggregation Studies in InGaN/GaN Quantum Wells", Intl. Workshop Nitride Semiconductors, Nagoya, Japan, 2000.
65. C. C. Chen, H. W. Chuang, G. C. Chi, C.-C. Chuo, and J.-I. Chyi, "Band Offset Parameter Measured by

- Optical-Pumping Spectra for High-Indium-Content InGaN/GaN Multiple Quantum Well Structures”, Intl. Workshop Nitride Semiconductors, Nagoya, Japan, 2000.
66. Y. S. Lin, C. Hsu, K. J. Ma, S. W. Feng, C. C. Liao, C. C. Yang, C.-C. Chuo, C.-M. Lee, and J.-I. Chyi, “Indium Aggregation and Phase Separation InGaN/GaN Quantum Wells Studied with High Resolution Transmission Electron Microscopy”, Intl. Workshop Nitride Semiconductors, Nagoya, Japan, 2000
 67. N.-T. Yeh, T.-E. Nee, and J.-I. Chyi, “Improved Electroluminescence of InAs Quantum Dots with Strain Reducing Layer”, 11th Intl. Conf. Molecular Beam Epitaxy, Beijing, China, 2000.
 68. J.-I. Chyi, C.-M. Kan, T.-E. Nee, C.-C. Chuo, C.-M. Lee, and C.-K. Peng, “AlGaN/InGaN Heterostructure Field Effect Transistors Grown on Sapphire by Metal-Organic Chemical Vapor Deposition”, MRS Fall Meeting, Boston, U.S.A., 2000.
 69. N.-T. Yeh, W.-S. Liu, S.-H. Chen and J.-I. Chyi, “Effects of Spacer Thickness on the Performance of InGaAs/GaAs Quantum Dot Lasers”, MRS Fall Meeting, Boston, U.S.A., 2000.
 70. M. Hong, A. R. Kortan, J. Kwo, J. P. Monnaerts, C.-M. Lee, and J.-I. Chyi, “Single Crystal Rare Earth Oxides Epitaxially Grown on GaN”, Intl. Sym. Compound Semiconductors, Monterey, U.S.A., 2000.
 71. T.M. Hsu, W.-H. Chang, C. C. Huang N. T. Yeh and J.-I. Chyi, “Quantum-Confining Stark Effects on Optical Transitions of InAs Self-Assembled Quantum Dots”, 25th International Conference on Physics of the Semiconductor (ICPS’25), Osaka, Japan, 2000.
 72. W.-H. Chang, T. M. Hsu, C. C. Huang, S. L. Hsu, C. Y. Lai, N. T. Yeh, T. E. Nee and J.-I. Chyi, “A Carrier Escape Study from InAs Self-Assembled Quantum Dots by Photocurrent Measurement”, International Conference on Semiconductor Quantum Dots (QD2000), Munich, Germany, 2000.
 73. W.-H. Chang, T. M. Hsu, C. C. Huang, N. T. Yeh, T. E. Nee and J.-I. Chyi, “Effects of Electric Field and Coulomb Interaction on the Interband Transitions of InAs Self-Assembled Quantum Dots Study by Modulation Reflectance Spectroscopy”, International Conference on Semiconductor Quantum Dots (QD2000), Munich, Germany, 2000.
 74. N.-T. Yeh, W.-S. Liu, S.-H. Chen and J.-I. Chyi, “InAs/GaAs Quantum Dot Lasers with InGaP Cladding Layer Grown by Solid-Source Molecular Beam Epitaxy”, 13th Intl. Conf. InP Related Materials, Nara, Japan, 2001.
 75. L.-H. Peng, K.-T. Hsu, C.-W. Shih, C.-C. Chuo, and J.-I. Chyi, “Spontaneous Polarization Effects on the Optical Properties of AlGaN/InGaN/GaN Quantum Wells”, CLEO/Pacific Rim, Chiba, Japan, 2001.
 76. Yen-Sheng Lin, Chen Hsu, Kung-Jeng Ma, Shih-Wei Feng, Yung-Chen Cheng, Yi-Yin Chung, Chih-Wen Liu, C.C. Yang, and Jen-Inn Chyi, “Microstructure Studies of InGaN/GaN Multiple Quantum Wells”, CLEO/Pacific Rim, Chiba, Japan, 2001.
 77. Shih-Wei Feng, Yung-Chen Cheng, C.C. Yang, C.-Y. Tsai, Yen-Sheng Lin, Chen Hsu, Kung-Jeng Ma, and Jen-Inn Chyi, “Two-Component Photoluminescence Decay and Carrier Localization in InGaN/GaN Multiple Quantum Well Structures”, CLEO/Pacific Rim, Chiba, Japan, 2001.
 78. Y.-M. Hsin, H.-T. Hsu, C.-M. Lee, and J.-I. Chyi, “DC and RF Characteristics of GaN/InGaN Doped Channel Heterostructure Field Effect Transistors”, Intl. Conf. Nitride Semiconductors, Denver, U.S.A., 2001.
 79. Chia-Ming Lee, Chang-Cheng Chuo, Xian-Fa Zheng, and Jen-Inn Chyi, “InGaN/GaN Light Emitting Diodes with High Hole Concentration InGaN Contact Layer”, Intl. Conf. Nitride Semiconductors, Denver, U.S.A., 2001.
 80. Chia-Ming Lee, Chang-Cheng Chuo, Hong-Shu Lin, and Jen-Inn Chyi, “Low-Resistance Ti/Pt/Au Ohmic Contacts to p-type InGaN”, Intl. Conf. Nitride Semiconductors, Denver, U.S.A., 2001.
 81. Yung-Chen Cheng, Chi-Chih Liao, Shih-Wei Feng, C.C. Yang, Yen-Sheng Lin, Kung-Jeng Ma, and Jen-Inn Chyi, “Activation of p-Type GaN with Irradiation of the Second-Harmonics of A Q-Switched Nd:Yag Laser”, Intl. Conf. Nitride Semiconductors, Denver, U.S.A., 2001.
 82. Yen-Sheng Lin, Chen Hsu, Kung-Jeng Ma, Shih-Wei Feng, Yung-Chen Cheng, Yi-Yin Chung, Chih-Wen Liu, C.C. Yang, and Jen-Inn Chyi, “Material Characterization of InGaN/GaN Multiple Quantum Well Structures with Structures with Various Indium contents”, Intl. Conf. Nitride Semiconductors, Denver, U.S.A., 2001.
 83. Shih-Wei Feng, Yung-Chen Cheng, Yi-Yin Chung, Chin-Wen Liu, C.C. Yang, Yen-Sheng Lin, Chen Hsu, Kung-Jeng Ma, and Jen-Inn Chyi, “Two-Component Photoluminescence Decay in InGaN/GaN Multiple Quantum Well Structures”, Intl. Conf. Nitride Semiconductors, Denver, U.S.A., 2001.
 84. J.-I. Chyi and C.-C. Chuo, “Inter-Diffusion of InGaN/GaN Multiple Quantum Wells Grown by Metalorganic Chemical Vapor Deposition”, PIERS 2001, Osaka, Japan, 2001. (invited)
 85. M. Hong, A. R. Kortan, H. M. Ng, J. Kwo, S. N. G. Chu, J. P. Mannaerts, A. Y. Cho, C. M. Lee, J.-I. Chyi, and K. A. Anselm, “Single Crystal GaN/Gd₂O₃/GaN Heterostructure”, North American Conf. MBE, U.S.A., 2001
 86. L.-H. Peng, K.-T. Hsu, C.-W. Shih, C.-C. Chuo, and J.-I. Chyi, “Spontaneous Polarization Effects on the Optical Properties of Piezo-Strained InGaN Quantum Wells”, CLEO, Baltimore, U.S.A., 2001.
 87. L. H. Peng, H. M. Wu, K. T. Hsu, C.-C. Chuo, and J.-I. Chyi, “Photo-Enhanced Wet Oxidation and Etching of Gallium Nitride”, 201st Meeting of the Electrochemical Society, Philadelphia, U.S.A., 2002.

88. M. Hong, J. Kwo, S. N. G. Chu, J. P. Mannaerts, G. Dabbagh, A. R. Kortan, H. M. Ng, A. Y. Cho, K. A. Anselm, C. M. Lee, and J. I. Chyi, "GaN/Gd₂O₃/GaN Single Crystal Heterostructure", 201st Meeting of the Electrochemical Society, Philadelphia, U.S.A., 2002.
89. N.-T. Yeh, B.-R. Wu, W.-C. Ho, and J.-I. Chyi, "Improved performance of InGaAsN/GaAs Lasers with Low Temperature Grown Quantum Well by MOCVD", 14th Conf. InP and Related Materials, Stockholm, Sweden, 2002.
90. C.-C. Chuo, G.-T. Chen, C.-M. Lee, and J.-I. Chyi, "Competition of Quasi-0d and 2d Quantized-State Transitions in InGaN/GaN Multiple Quantum Well Light Emitter", Intl. Workshop on Nitride Semiconductors, Achen, Germany, 2002.
91. C.-M. Lee, C.-C. Chuo, I.-L. Chen, J.-C. Chang, and J.-I. Chyi, "High-Brightness Inverted InGaN/GaN Multiple-Quantum-Well Light-Emitting Diodes without Transparent Conductive Layer", Intl. Workshop on Nitride Semiconductors, Achen, Germany, 2002.
92. Y.-C. Cheng, S.-W. Feng, Y.-Y. Chung, C. C. Yang, C.-H. Tseng, C. Hsu, Y.-S. Lin, K.-J. Ma, and J.-I. Chyi, "Optical and Material Characteristics of InGaN/GaN Multiple Quantum Well Structures with Different Quantum Well Widths", Intl. Workshop on Nitride Semiconductors, Achen, Germany, 2002
93. C.-C. Chuo, M.-N. Chang, H.-F. Hong, J. D. S. Dang, C.-M. Lee, J.-I. Chyi, Chi-Yuan Chen², Fu-Ming Pan², A. Kikuchi, and K. Kishino, "Effect of GaN Nucleation Layer and AlN Interlayers on the Conductivity of AlGaN/GaN Heterostructures Grown by MOCVD and RF-MBE", 29th Intl. Symposium on Compound Semiconductors, Lausanne, Switzerland, 2002.
94. S.-H. Chen, M.-L. Lee, M.-Y. Tseng, W.-S. Liu, and J.-I. Chyi, "Low Current-Blocking InGaAs/InP DHBT Grown by Solid-Source MBE", The XII Intl. Conf. MBE, San Francisco, U.S.A., 2002.
95. L. H. Peng, H. M. Wu, K. T. Hsu, C.-C. Chuo, and J.-I. Chyi, "Photo-Enhanced Wet Oxidation and Etching of Gallium Nitride", 201st Meeting of the Electrochemical Society, Philadelphia, U.S.A., 2002.
96. M. Hong, J. Kwo, S. N. G. Chu, J. P. Mannaerts, G. Dabbagh, A. R. Kortan, H. M. Ng, A. Y. Cho, K. A. Anselm, C. M. Lee, and J. I. Chyi, "GaN/Gd₂O₃/GaN Single Crystal Heterostructure", 201st Meeting of the Electrochemical Society, Philadelphia, U.S.A., 2002.
97. N.-T. Yeh, B.-R. Wu, W.-C. Ho, and J.-I. Chyi, "Improved performance of InGaAsN/GaAs Lasers with Low Temperature Grown Quantum Well by MOCVD", 14th Conf. InP and Related Materials, Stockholm, Sweden, 2002.
98. C.-C. Chuo, G.-T. Chen, C.-M. Lee, and J.-I. Chyi, "Competition of Quasi-0d and 2d Quantized-State Transitions in InGaN/GaN Multiple Quantum Well Light Emitter", Intl. Workshop on Nitride Semiconductors, Achen, Germany, 2002.
99. C.-M. Lee, C.-C. Chuo, I.-L. Chen, J.-C. Chang, and J.-I. Chyi, "High-Brightness Inverted InGaN/GaN Multiple-Quantum-Well Light-Emitting Diodes without Transparent Conductive Layer", Intl. Workshop on Nitride Semiconductors, Achen, Germany, 2002.
100. Y.-C. Cheng, S.-W. Feng, Y.-Y. Chung, C. C. Yang, C.-H. Tseng, C. Hsu, Y.-S. Lin, K.-J. Ma, and J.-I. Chyi, "Optical and Material Characteristics of InGaN/GaN Multiple Quantum Well Structures with Different Quantum Well Widths", Intl. Workshop on Nitride Semiconductors, Achen, Germany, 2002
101. C.-C. Chuo, M.-N. Chang, H.-F. Hong, J. D. S. Dang, C.-M. Lee, J.-I. Chyi, Chi-Yuan Chen², Fu-Ming Pan², A. Kikuchi, and K. Kishino, "Effect of GaN Nucleation Layer and AlN Interlayers on the Conductivity of AlGaN/GaN Heterostructures Grown by MOCVD and RF-MBE", 29th Intl. Symposium on Compound Semiconductors, Lausanne, Switzerland, 2002.
102. S.-H. Chen, M.-L. Lee, M.-Y. Tseng, W.-S. Liu, and J.-I. Chyi, "Low Current-Blocking InGaAs/InP DHBT Grown by Solid-Source MBE", The XII Intl. Conf. MBE, San Francisco, U.S.A., 2002.
103. L. Jiang, S. S. Li, N.-T. Yeh, and J.-I. Chyi, "An In_{0.6}Ga_{0.4}As/GaAs Quantum Dot Infrared Photodetector with Operating Temperature up to 260K", SPIE Conference, Orlando, U.S.A., 2003
104. N.-T. Yeh, W.-J. Ho, K.-F. Huang, M. C. Wu, T.-P. Shieh, and J.-I. Chyi, "1.3 μm InAs/GaAs Quantum Dots Directly Capped with GaAs Grown by Metal-Organic Chemical Vapor Deposition", MRS Spring Meeting, San Francisco, U.S.A., 2003.
105. N.-T. Yeh, T.-P. Hsieh, P.-C Chiu, K.-F. Huang, W.-C. Ho, M.-C Wu, and J.-I. Chyi, "1.3 to 1.5 μm Range Emission from InAs/GaAs Quantum Dots Grown by Metal-Organic Chemical Vapor Deposition", 15th Conf. InP and Related Materials, Santa Barbara, U.S.A., 2003
106. Y. Irokawa, B. Luo, J. Kim, J. R. LaRoche, F. Ren, K. H. Baik, S. J. Pearton, C.-C. Pan, G.-T. Chen, J.-I. Chyi, S. S. Park and Y. J. Park, "Current-Voltage and Reverse Recovery Characteristics of Bulk GaN P-I-N Rectifiers", MRS Fall Meeting, Boston, U.S.A., 2003.
107. Y. Irokawa, B. Luo, F. Ren, B. P. Gila, C. R. Abernathy, S. J. Pearton, C. -C. Pan, G.-T. Chen, J. -I. Chyi, S. S. Park, and Y. J. Park, "Reduction of Surface-Induced Current Collapse in AlGaN/GaN HFETs on Free-Standing GaN Substrates", 45th Electronic Materials Conference, Salt Lake City, U.S.A., 2003.
108. Y. Irokawa, B. Luo, J. R. LaRoche, B. S. Kang, J. Kim, F. Ren, C. -C. Pan, G. -T. Chen, J. -I. Chyi, S. S. Park, Y. J. Park, B.P. Gila, C.R. Abernathy, K. Baik, and S. J. Pearton, "GaN Power Rectifiers and Field-

- Effect Transistors on Free-Standing GaN Substrates”, 204th Meeting of the Electrochemical Society, Orlando, U.S.A., 2003.
- 109.B. S. Kang, S. Kim, J. Kim, K. H. Baik, S. Pearton, B. Gila, C. Abernathy, C.-C. Pan, G.-T. Chen, J.-I. Chyi, M. Sheplak, T. Nishida, S. Chu, and F. Ren, “The Effect of External Strain on the Conductivity of AlGaN/GaN High Electron Mobility Transistors”, 204th Meeting of the Electrochemical Society, Orlando, U.S.A., 2003.
- 110.C.-C. Pan, C.-M. Lee, W.-J. Hsu, G.-T. Chen, and J.-I. Chyi, “Luminescence Efficiency of InGaN Multiple Quantum Well UV-LEDS”, 30th Intl. Symposium on Compound Semiconductors, San Diego, U.S.A., 2003.
- 111.T.-P. Hsieh, P.-C. Chiu, Y.-C. Liu, N.-T. Yeh, W.-C. Ho, and J.-I. Chyi, “Selective Growth of InAs Quantum Dots on Patterned GaAs Substrate by Metal-Organic Chemical Vapor Deposition”, 30th Intl. Symposium on Compound Semiconductors, San Diego, U.S.A., 2003.
- 112.W.-H. Chang, T.-M. Hsu, W.-Y. Chen, H.-S. Chang, N.-T. Yeh, and J.-I. Chyi, “Conductance Mapping for Electron and Hole Energy Levels in InAs/GaAs Self-Assembled Quantum Dots”, 30th Intl. Symposium on Compound Semiconductors, San Diego, U.S.A., 2003.
- 113.J.-I. Chyi, C.-C. Pan, C.-M. Lee, W.-J. Hsu, and C.-S. Fang, “Developments of High Efficiency InGaN-Based Light-Emitting Diodes”, Intl. Conf. on Solid State Device and Materials, Tokyo, Japan, 2003. (invited)
- 114.W.-K. Wang, Y.-J. Li, C.-K. Lin, Y.-J. Chan, G.-T. Chen, and J.-I. Chyi, “Low Damage, High Selectivity Ar/Cl₂/CH₄/O₂ Gate Recess Etching for AlGaN/GaN HEMT Fabrication”, Intl. Conf. on Solid State Device and Materials, Tokyo, Japan, 2003.
- 115.S.-H. Chen, M.-L. Lee, P.-H. Chen, S.-Y. Wang, M.-Y. Tseng, and J.-I. Chyi, “InGaAs/InP Heterojunction Bipolar Transistors with Low Offset Voltage and Current Blocking”, IEEE CLEO/Pacific Rim, Taipei, Taiwan, R.O.C., 2003
- 116.Y.-C. Cheng, E.-C. Lin, S.-W. Feng, H.-C. Wang, C. C. Yang, K.-J. Ma, S.-C. Shi, L. C. Chen, C.-C. Pan, and J.-I. Chyi, “Effects of Thermal Annealing on InGaN/GaN Quantum Well Structures with Si Doping”, IEEE CLEO/Pacific Rim, Taipei, Taiwan, R.O.C., 2003
- 117.C.-C. Pan, C.-M. Lee, W.-J. Hsu, G.-T. Chen, and J.-I. Chyi, “Luminescence Efficiency of InGaN-Based Multiple Quantum Well UV-LEDS”, IEEE CLEO/Pacific Rim, Taipei, Taiwan, R.O.C., 2003.
- 118.K.-H. Lin, C.-L. Hsieh, T.-M. Liu, S. Keller, S. P. DenBaars, G.-T. Chen, C.-C. Pan, J.-I. Chyi, and C.-K. Sun, “Nano Ultrasonics: Science and Technology”, Photonics West, San Jose, CA, U.S.A., 2004.
- 119.W.-S. Liu, and J.-I. Chyi, “Optical Properties of InAs Quantum Dots with Composite InAlAs/InGaAs Matrix”, 16th Intl. Conf. InP and Related Materials, Kagoshima, Japan, 2004.
- 120.T.-P. Hsieh, P.-C. Chiu, Y.-C. Liu, N.-T. Yeh, W.-J. Ho, and J.-I. Chyi, “1.55 μm Emission from InAs Quantum Dots Grown on GaAs”, Intl. Conf. MOVPE XII, Maui, U.S.A., 2004.
- 121.Y.-C. Cheng, E.-C. Lin, C. C. Yang, J.-R. Yang, A. Rosenauer, K.-J. Ma, C.-C. Pan, and J.-I. Chyi, “Mechanisms of Emission Enhancement with Silicon Doping in InGaN/GaN Quantum Wells”, 5th Intl. Sym. Blue Laser and Light-Emitting Diodes, Gyeongju, Korea, 2004.
- 122.S.-H. Chen, S.-Y. Wang, P.-H. Chen, G.-P. Chi, M.-Y. Tseng, and J.-I. Chyi, Molecular Beam Epitaxial Growth of InP Double Heterojunction Bipolar Transistors with High $f_T \times BV_{CEO}$ ”, XIII Intl. Conf. on MBE, Edinburgh, UK, 2004.
- 123.W.-S. Liu, H. Chang, Y.-S. Liu, and J.-I. Chyi, “Investigation on the Pinhole-Like Defects on Multi-Stack InAs/GaAs Quantum Dot Layers”, XIII Intl. Conf. on MBE, Edinburgh, UK, 2004.
- 124.Y. Irokawa, Y. Nakano, M. Ishiko, T. Kachi, J. Kim, F. Ren, B. P. Gila, A. H. Onstine, C. R. Abernathy, S. J. Pearton, C.-C. Pan, G.-T. Chen and J.-I. Chyi, “GaN Enhancement Mode Metal-Oxide Semiconductor Field Effect Transistors”, Intl. Workshop on Nitride Semiconductors, Pittsburgh, U.S.A., 2004.
- 125.Y.-C. Cheng, M.-K. Chen, C.-M. Wu, C. C. Yang, J.-R. Yang, A. Rosenauer, K.-J. Ma, S.-C. Shi, L. C. Chen, C.-C. Pan, and J.-I. Chyi, “Differences in Nanostructure and Carrier Localization Behavior of InGaN/GaN Quantum-Well Structures with Different Silicon-Doping Conditions”, Intl. Workshop on Nitride Semiconductors, Pittsburgh, U.S.A., 2004
- 126.C.-C. Pan, M.-S. Chen, C.-M. Lee, and J.-I. Chyi, “Low Resistance WSix-based Ohmic Contacts to N-type GaN”, 33st Intl. Symposium on Compound Semiconductors, Seoul, Korea, 2004.
- 127.H.-C. Lin, G.-T. Chen, T.-C. Huang, J.-I. Chyi, H.-M. Lin, and M.-N. Chang, “InGaN/GaN Multiple Quantum Well Laser Diodes Fabricated by Ion Implantation Selective Activation Process”, 33st Intl. Symposium on Compound Semiconductors, Seoul, Korea, 2004.
- 128.P.-C. Chiu, N.-T. Yeh, T.-P. Hsieh, W.-J. Ho, and J.-I. Chyi, “Optical Quality Improvement of InGaAsN/GaAs Quantum Well with Reduced Al-Contamination by Growth Interruption”, 33st Intl. Symposium on Compound Semiconductors, Seoul, Korea, 2004.
- 129.W.-K. Wang, P.-C. Lin, C.-H. Lin, C.-K. Lin, Y.-J. Chan, G.-T. Chen, and J.-I. Chyi, “Performance Enhancement by Using the n+-GaN Cap Layer and Gate Recess Technology on the AlGaN/GaN HEMTs Fabrication”, 33st Intl. Symposium on Compound Semiconductors, Seoul, Korea, 2004.

- 130.W.-Y. Chiu, F.-H. Huang, Y.-S. Wu, D.-M. Lin, S.-H. Chen, J.-W. Shi, J.-I. Chyi, and Y.-J. Chan, "Reduced Mesa-Sidewall Leakage Current in InGaAs/InP MSM Photodetector by BCB Sidewall Process", Intl. Conf. on Solid State Device and Materials, Tokyo, Japan, 2004.
- 131.C.-L. Hsieh, K.-H. Lin, S.-B. Wu, C.-K. Sun, C.-C. Pan, J.-I. Chyi, S. Keller, and S. P. DenBaars, "Propagation studies of THz nano acoustic waves in GaN," in IEEE Conference on Laser and Electro-Optics/International Quantum Electronics Conference (CLEO/IQEC'2004), San Francisco, USA, 2004.
- 132.J.-I. Chyi and W.-S. Liu, "Growth of InAs Quantum Dots for Photonic Devices", IUMRS Intl. Conf. in Asia, Hsinchu, Taiwan, R.O.C., 2004. (Invited)
- 133.K.-H. Lin, C.-L. Hsieh, C.-T. Yu, C.-C. Pan, J.-I. Chyi, S. Keller, S. P. DenBaars, and C.-K. Sun, "Generation, Detection, and Propagation of Nano-Acoustic Waves in Piezoelectric Semiconductors, Photonics West, San Francisco, U.S.A., 2005.
- 134.N.-T. Yeh, P.-C. Chiu, Y.-T. Tsai, C.-C. Hong, T.-P. Hsieh, W.-J. Ho, and J.-I. Chyi, "InGaAsN/GaAs Quantum Well Lasers Using Two-Step and Nitride Passivation Growth", 17th Intl. Conf. InP and Related Materials, Glasgow, UK, 2005.
- 135.K.-H. Lin, C.-T. Yu, C.-C. Pan, J.-I. Chyi, S.-W. Huang, P.-C. Li, and C.-K. Sun, "1D Nano-Ultrasonic Scan with 1 Nanometer Spatial Resolution," Conference on Laser and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS'2005), Baltimore, USA, 2005.
- 136.C.-T. Yu, K.-H. Lin, C.-L. Hsieh, C.-C. Pan, J.-I. Chyi, and C.-K. Sun, "Generation of Frequency Tunable Nano-Acoustic Waves by Optical Coherent Control," Conference on Laser and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS'2005), Baltimore, USA, 2005.
- 137.W.-H. Chang, W.-Y. Chen, H.-S. Chang, T.M. Hsu, T.-P. Hsieh, and J.-I. Chyi, "Single-Photon Emissions from Individual InGaAs Quantum Dots in Photonic Crystal Microcavity", IEEE CLEO/Pacific Rim, Tokyo, Japan, 2005.
- 138.W.-S. Liu, H. Chang, Y.-S. Liu, and J.-I. Chyi, "Effects of Dot Height Uniformity on the Performance of 1.3 μ m InAs Quantum Dot Lasers", 5th IEEE Conference on Nanotechnology, Nagoya, Japan, 2005.
- 139.C.-C. Pan, G.-T. Chen, W.-J. Hsu, and J.-I. Chyi, "Thermal Stability Improvement on Reflective Ohmic Contacts to P-type GaN for Ultraviolet Light-Emitting Diodes", Intl. Symposium on Compound Semiconductors (ISCS), Rust, Germany, 2005.
- 140.T.-P. Hsieh, H.-S. Chang, W.-Y. Chen, W.-H. Chang, T. M. Hsu, N.-T. Yeh, W.-J. Ho, P.-C. Chiu, and J.-I. Chyi, "Growth of Low-Density InGaAs Quantum Dot for Single Photon Source by Metal-Organic Chemical Vapor Deposition", Intl. Symposium on Compound Semiconductors (ISCS), Rust, Germany, 2005.
- 141.G.-T. Chen C.-C. Pan and J.-I. Chyi, "Investigation of the Spatial Luminescence Variation of InGaN/GaN Multiple Quantum Wells Grown on Epitaxial-Lateral Overgrown GaN on Sapphire", Intl. Symposium on Compound Semiconductors (ISCS), Rust, Germany, 2005.
- 142.J.-I. Chyi, W.-S. Liu, T.-P. Hsieh, T. M. Hsu, W. H. Chang, W. Y. Chen and H. S. Chang, "Progress on InAs-Based Quantum Dot Light Emitters", the 208th Meeting of the Electrochemical Society (ECS), Los Angeles, U.S.A., 2005. (Invited)
- 143.J.-I. Chyi, T.-P. Hsieh, H. S. Chang, W. Y. Chen, W. H. Chang, and T. M. Hsu, "Single Photon Source Based on InGaAs Quantum Dots", IEEE LEOS Meeting, Sydney, Australia, 2005.
- 144.M.-H. Mao, L.-C. Su, K.-C. Wang, W.-S. Liu, P.-C. Chiu, and J.-I. Chyi, "Spectrally-Resolved Dynamics of Two-State Lasing in Quantum-Dot Lasers", IEEE LEOS Meeting, Sydney, Australia, 2005.
- 145.J.-I. Chyi, W.-S. Liu, T.-P. Hsieh, T. M. Hsu, W. H. Chang, W. Y. Chen and H. S. Chang, "Progress on InAs-Based Quantum Dot Light Emitters", SPIE Asia-Pacific Optical Communications, Shanghai, China, 2005. (Invited)
- 146.J.-I. Chyi, "(In,Ga)As Quantum Dot Photonic Devices", 3rd Intl. Workshop Nanoscale Semiconductor Devices, Chonju, Korea, 2006. (Invited)
- 147.T.-P. Hsieh, H.-S. Chang, W.-Y. Chen, T. M. Hsu, P.-C. Chiu, and J.-I. Chyi, "Enhanced Luminescence Efficiency of InAs Quantum Dots at 1.5 μ m", 4th Intl. Conf. QDs, Chamonix-Mont Blanc, France, 2006.
- 148.J.-W. Shi, A. C. Shiao, C. A. Hsieh, Y. S. Wu, F. H. Huang, S. H. Chen, J.-I. Chyi, "Dual-Depletion-Region Electro-Absorption Modulator at 1.55 μ m Wavelength for High-Speed and Low-Driving-Voltage Performance", OFC, Anaheim, U.S.A., 2006.
- 149.J.-W. Shi, Y.-T. Li, C.-L. Pan, M.-L. Lin, Y.-S. Wu, W.-S. Liu, J.-I. Chyi, "Separated-Transport-Recombination p-i-n Photodiode (STR-PD) with High-Speed and High-Power Performance under Continuous-Wave Operation", CLEO/QELS, Long Beach, U.S.A., 2006.
- 150.H.-Y. Huang, J.-W. Shi, Y.-S. Wu, J.-I. Chyi, J.-K. Sheu, W.-C. Lai, G.-R. Lin, C.-L. Pan, "Modulation-Speed Enhancement of a GaN Based Green Light-Emitting-Diode by Use of n-type Barrier Doping for Plastic Optical Fiber Communication", CLEO/QELS, Long Beach, U.S.A., 2006.
- 151.K.-H. Lin, C.-F. Chang, A.-T. Tien, K.-M. Lin, G.-Y. Guo, C.-C. Pan, J.-I. Chyi, S. Keller, U. Mishra, S. P. DenBaars, and C.-K. Sun, Transient Wavefunction Analysis of a Phononic Bandgap Nano-Crystal", CLEO/QELS, Long Beach, U.S.A., 2006.

- 152.T.-P. Hsieh, C.-J. Wang, H.-S. Chang, W.-Y. Chen, T. M. Hsu, P.-C. Chiu, and J.-I. Chyi, "Spatially Controlled InGaAs Quantum Dots Grown on a Nano-plane by Metal Organic Vapor Phase Epitaxy, ICMOVPE-XIII, Miyazaki, Japan, 2006.
- 153.S.-H. Chen, R.-J. Hsieh, S.-Y. Wang, G.-P. Chi, and J.-I. Chyi, "DC Characteristics of InGaAsSb/InP HBTs Grown by Solid-Source Molecular Beam Epitaxy", 14th Intl. Conf. Molecular Beam Epitaxy, Tokyo, Japan, 2006.
- 154.W.-S. Liu, J.-I. Chyi, W.-Y. Chen, H.-S. Chang, and T.-M. Hsu, "Enhanced Thermal Stability and Emission Intensity of InAs Quantum Dots Covered by InGaAsSb Strain-Reducing Layer", 14th Intl. Conf. Molecular Beam Epitaxy, Tokyo, Japan, 2006.
- 155.G.-T. Chen, S.-B. Chang, C.-C. Hsu, M.-N. Chang, C.-R. Chen, S.-P. Chiu, and J.-I. Chyi, "Investigation of InGaN/GaN Quantum Wells Grown on V-grooved (100) Si Substrate by Metal-Organic Vapor Phase Epitaxy", Intl. Symposium on Compound Semiconductors (ISCS), Vancouver, Canada, 2006.
- 156.C.-C. Pan, C.-M. Lee, C.-W. Lin, Y.-L. Tsai, C.-H. Hsieh, G.-T. Chen, and J.-I. Chyi, "Light Output Improvement of InGaN Ultraviolet Light-Emitting Diodes Grown on SiON Stripe-Patterned Sapphire Substrates", Intl. Symposium on Compound Semiconductors (ISCS), Vancouver, Canada, 2006.
- 157.H.-C. Lin, T.-P. Hsieh, C.-C. Pan, L.-H. Chun, T.-M. Hsu, and J.-I. Chyi, "Optical Investigation of InN Quantum Dots Grown by Metal-Organic Chemical Vapor Phase Epitaxy", Intl. Workshop Nitrides, Kyoto, Japan, 2006.
- 158.J.-I. Chyi and C.-C. Pan, "GaN-Based Light-Emitting Diodes Grown on SiON Patterned Substrates", 13th Intl. Workshop Inorganic and Organic EL & 2006 Intl. Conf. Sci. and Tech. of Emissive Displays and Lighting, Jeju, Korea, 2006. (invited)
- 159.H.-S. Chang, W.-H. Chang, W.-Y. Chen, T.-P. Hsieh, J.-I. Chyi, and T.-M. Hsu, "Optical Properties of Exciton Charge States in InGaAs Quantum Dots Grown by Metalorgainc Chemical Vapor Deposition", 28th Intl. Conf. on the Physics of Semiconductor, Vienna, Austria, 2006.
- 160.W.-Y. Chen, H.-S. Chang, W.-H. Chang, T.-P. Hsieh, J.-I. Chyi, and T.-M. Hsu, "Collective and Individual Emissions for InGaAs Quantum Dots in Photonic Crystal Nonovavity", 28th Intl. Conf. on the Physics of Semiconductor, Vienna, Austria, 2006.
- 161.W.-H. Chang, W.-Y. Chen, H.-S. Chang, J.-I. Chyi, T.-P. Hsieh, and T.-M. Hsu, "Low-Density Quantum Dots Embedded in Photonic Crystal Nonocavities for Single-Photon Generations", 28th Intl. Conf. on the Physics of Semiconductor, Vienna, Austria, 2006.
- 162.J.-I. Chyi, "GaN-Based Light-Emitting Diodes Grown on Patterned Substrates by Metal-Organic Vapor Phase Epitaxy", Photonic West, San Jose, U.S.A., 2007. (Invited)
- 163.J.-I. Chyi, "High Quality InAs/In(Al,Ga)AsSb Quantum Dot Heterostructures", 211th ECS Meeting. Chicago, U.S.A., 2007. (Invited)
- 164.T.-P. Hsieh, H.-S. Chang, W.-Y. Chen, T. M. Hsu, and J.-I. Chyi, "Single Photon Emission from an InGaAs Quantum Dot on a Nano-Plane", 19th International Conf. Indium Phosphide and Related Materials, Matsue, Japan, 2007.
- 165.S.-H. Chen, S.-Y. Wang, K.-H. Teng, and J.-I. Chyi, "High Current InAlAs/InGaAsSb/InGaAs Heterojunction Bipolar Transistor with InGaAsSb Base for Low Power and High-Speed Applications, 19th International Conf. Indium Phosphide and Related Materials, Matsue, Japan, 2007.
- 166.P.-C. Chiu, W.-S. Liu, M.-J. Hsiau, J.-I. Chyi, W.-Y. Chen, H.-S. Chang, and T.-M. Hsu, "High Optical Quality InAs Quantum Dots with an InAlAsSb Strain-Reducing Layer", 19th International Conf. Indium Phosphide and Related Materials, Matsue, Japan, 2007.
- 167.S.-Y. Wang, S.-H. Chen, K.-H. Teng, and J.-I. Chyi, "DC Characteristics of GaAsSb/InGaAs Type-II Heterojunction Bipolar Transistor", 19th International Conf. Indium Phosphide and Related Materials, Matsue, Japan, 2007.
- 168.J.-W. Shi, Y.-T. Li, C.-L. Pan, C.-H. Chiu, W.-S. Liu, J.-I. Chyi, "Characterization of a Sub-THz Photonic Transmitter Based on a Separated-Transport-Recombination Photodiode", CLEO/QELS, Baltimore, U.S.A., 2007.
- 169.C.-C. Pan, C.-H. Hsieh, J.-I. Chyi, "Emission Intensity Improvement of InGaN Ultraviolet Light-Emitting Diodes Grown on Wet-Etched Sapphire Substrates", CLEO/QELS, Baltimore, U.S.A., 2007.
- 170.J.-I. Chyi, "InAs/In(Ga,Al)AsSb Quantum Dot Heterostructures for Photonic Devices", SSDM, Tsukuba, Japan, 2007. (Invited)
- 171.H.-C. Lin and J.-I. Chyi, "Enhanced Quantum Efficiency of InGaN Green Light-Emitting Diodes Prepared by Trimethylindium Treatment", Intl. Symposium on Compound Semiconductors, Kyoto, Japan, 2007.
- 172.C.-Y. Chen, T.-P. Hsieh, P.-C. Chiu, C.-J. Wang, C.-H. Chang and J.-I. Chyi, "Effects of Carrier Blocking Layer on the Optical Properties of 1.5 μ m InAs Quantum Dots", Intl. Symposium on Compound Semiconductors, Kyoto, Japan, 2007.
- 173.M.-J. Shiau, P.-C. Chiu, T.-P. Hsieh ,M.-N. Chang, and J.-I. Chyi, "Improving Long Wavelength InAs Quantum Dots by an InGaAsSb Overgrown Layer", Intl. Symposium on Compound Semiconductors, Kyoto, Japan, 2007.

- 174.C.-C. Pan, C.-H. Hsieh, G.-Y. Lee, and J.-I. Chyi, "Anisotropic Behavior of the InGaN Light-Emitting Diodes Grown on Wet-Etched Patterned Sapphire Substrates with Stripes along the <11-20> and <1-100> Directions, Intl. Symposium on Compound Semiconductors, Kyoto, Japan, 2007.
- 175.J.-W. Shi, C.-C. Chen, J.-K. Sheu, W.-C. Lai, C.-H. Kuo, C.-J. Tun, T.-H. Yang, and J.-I. Chyi, "Phosphor-Free GaN-Based Transverse Junction Whit-Light Light-Emitting-Diode (LED)", Intl. Conference on White LEDs and Solid State Lighting, Tokyo, Japan, 2007
- 176.J.-W. Shi, C.-C. Chen, J.-K. Sheu, W.-C. Lai, C.-H. Kuo, C.-J. Tun, T.-H. Yang, and J.-I. Chyi, "Phosphor-Free GaN-Based Cascade Transverse Junction Light Emitting Diode Arrays for the High-Power Generation of White-Light", IEEE LEOS Meeting, Buena Vista, FL, U.S.A., 2007.
- 177.Y.-M. Hsin, C.-T. Li, K.-P. Hsueh, C.-J. Tun, H.-C. Lin, and J.-I. Chyi, "DC Characteristics of GaN/ZnO Collector-up HBT", 7th Topical Workshop on Heterostructure Microelectronics, Chiba, Japan, 2007.
- 178.J.-I. Chyi, C.-C. Pan, C.-H. Hsieh, G.-Y. Lee, T.-X. Lee, and C.-C. Sun, "Light output improvement of InGaN light-emitting diodes by using wet-etched stripe-patterned sapphire substrates", Photonic West, OPTO 2008, San Jose, U.S.A., 2008. (Invited)
- 179.G.-T. Chen, C.-H. Chan, H.-H. Liu, C.-H. Huo, N.-W. Shiu, M.-N. Chang, C.-C. Chen, and J.-I. Chyi, "Epitaxial lateral overgrowth of GaN on AlGaN/(111)Si micropillar array fabricated by microsphere lithography", Photonic West, OPTO 2008, San Jose, U.S.A., 2008.
- 180.S.-H. Chen, S.-Y. Wang, H.-Y. Chen, K.-H. Teng, and J.-I. Chyi, "Ultra Low Turn-on Voltage and High-Current InP DHBT with a Pseudomorphic $In_{0.37}Ga_{0.63}As_{0.89}Sb_{0.11}$ Base", 20th International Conf. Indium Phosphide and Related Materials, Versailles, France, 2008.
- 181.S.-Y. Wang, S.-H. Chen, K.-H. Teng, and J.-I. Chyi, "Extraction of base and collector transit time in $InP/In_{0.37}Ga_{0.63}As_{0.89}Sb_{0.11}/InGaAs$ heterojunction bipolar transistors", 20th International Conf. Indium Phosphide and Related Materials, Versailles, France, 2008.
- 182.H.-C. Lin, Y.-C. Tseng, J.-I. Chyi, and C.-M. Lee, "Enhancing the Light Extraction of InGaN Light-Emitting Diodes by Patterning the Dicing Streets", IEEE CLEO/QELS, San Jose, U.S.A., 2008.
- 183.Y.-T. Li, C.-L. Pan, J.-W. Shi, C.-Y. Huang, N.-W. Chen, S.-H. Chen, and J.-I. Chyi, "Sub-THz Photonic-Transmitters Based on GaAs/AlGaAs Uni-Traveling Carrier Photodiode and Micromachined Circular Disk Monopole Antenna for Ultra-Wideband Communication", IEEE CLEO/QELS, San Jose, U.S.A., 2008.
- 184.Y.-R. Huang, C.-C. Kuo, C.-M. Chiu, H.-P. Chen, T.-F. Kao, P.-C. Chiu, J.-I. Chyi, Y.-C. Chen, A.-S. Liu, R.-B. Wu, and C.-K. Sun, "Highly Directed Terahertz Photonic Transmitter by Using the Design of Planar Antenna Arrays", IEEE CLEO/QELS, San Jose, U.S.A., 2008.
- 185.D.-C. Wu, Y.-C. Lin, M.-H. Mao, W. S. Liu, P. C. Chiu, J.-I. Chyi, J. S. Wang, Gray Lin, and J. Y. Chi, "Temperature Dependences of Quantum-Dot Laser Thresholds under Simultaneously Three-State or Two-State Lasing Operations", IEEE CLEO/QELS, San Jose, U.S.A., 2008.
- 186.C.-J. Wang, Y. C. Tseng, P. C. Chiu, C. H. Li, T. P. Hsieh, W. Y. Chen, W. H. Chang, M. H. Shih, T. M. Hsieh, and J.-I. Chyi, "1.3 μm InAs Quantum Dot Emitters with a High Purcell Factor Photonic Crystal Nano-Cavity", 5th Intl. Conf. Semiconductor Quantum Dots, Gyeongju, Korea, 2008.
- 187.Y. C. Tseng, C. J. Wang, P. C. Chiu, T. P. Hsieh, W. Y. Chen, M. H. Shih, W. H. Chang, T. M. Hsu, and J.-I. Chyi, "Quasi-H1 Photonic Crystal Micro-Cavities with an Extremely Low Mode-Volume for 1.3 μm InAs QD Single Photon Sources", 5th Intl. Conf. Semiconductor Quantum Dots, Gyeongju, Korea, 2008.
- 188.H. Lin, S.-Y. Wang, C.-H. Lin, W.-H. Chang, S.-J. Cheng, M.-C. Lee, T.-M. Hsu, and J.-I. Chyi, "Exciton Fine Structures and Energy Transfer in Single InGaAs Quantum-Dot Molecules", 5th Intl. Conf. Semiconductor Quantum Dots, Gyeongju, Korea, 2008. (Student paper award)
- 189.M.-N. Chang, H.-M. Lin, R.-S. Lin, H.-H. Liu, H.-C. Lin, and J.-I. Chyi, "Investigations of Photo-Assisted Conductive Atomic Force Microscopy on III-Nitrides", E-MRS, Strasbourg, France, 2008.
- 190.S.-H. Chen, H.-Y. Chen, S.-Y. Wang, K.-H. Teng, and J.-I. Chyi, "Pseudomorphic InGaAsSb Base DHBT Grown by Solid-Source Molecular Beam Epitaxy", 15th Intl. Conf. Molecular Beam Epitaxy, Vancouver, Canada, 2008.
- 191.S.-Y. Wang, S.-H. Chen, K.-H. Teng, and J.-I. Chyi, "Effects of an InP Spacer at the Base-Collector Junction of InP/InGaAsSb/InGaAs HBTs", 15th Intl. Conf. Molecular Beam Epitaxy, Vancouver, Canada, 2008.
- 192.H.-C. Lin, R.-S. Lin, Y.-C. Tseng, S.-P. Lee, J.-I. Chyi, and C.-M. Lee "Enhancing the Output Power of InGaN Light-Emitting Diodes by Patterning Technologies" Intl. Workshop Nitrides, Montreux, Switzerland, 2008.
- 193.Y.-L. Lan, H.-C. Lin, Y.-C. Chen, G.-Y. Lee, J.-I. Chyi, "Smooth N-Type Ohmic Contacts for AlGaN/GaN Heterostructures" Intl. Workshop Nitrides, Montreux, Switzerland, 2008.
- 194.N.-W. Hsu, H.-H. Liu, G.-T. Chen, and J.-I. Chyi, "Luminescence Investigation of Semi-Polar {1-101} and {11-22} InGaN/GaN Light Emitting Diodes Selectively Grown on c-Plane Sapphire" Intl. Workshop Nitrides, Montreux, Switzerland, 2008.
- 195.J.-I. Chyi, "Light Output Enhancement of InGaN Light-Emitting Diodes by Patterning Technologies", Asia-Pacific Optical Communications, Hangzhou, China, 2008. (Invited)

- 196.Y.-L Lan, H.-C. Lin, G.-Y. Lee., F. Ren, S. J. Pearton and J.-I. Chyi, "Improved Surface Morphology and Edge Definition for Ohmic Contacts to AlGaN/GaN Heterostructures" Photonics West, OPTO, San Jose, U.S.A., 2009.
- 197.H.-H. Liu, G.-T. Chen, Y.-L. Lan, G.-Y. Lee and J.-I. Chyi, "Growth of High Quality AlN on Sapphire by Using a Low-temperature AlN Interlayer" Photonics West, OPTO, San Jose, U.S.A., 2009.
- 198.S.-H. Chen, C.-M. Chang, P.-Y. Chiang, S.-Y. Wang, and J.-I. Chyi, "InAlAs/InGaAsSb/InGaAs Double Heterojunction Bipolar Transistors with High Current Gain and Low Base Sheet Resistance", 21th Intl. Conf. Indium Phosphide and Related Materials, Newport Beach, U.S.A., 2009.
- 199.Y.-C. Tseng, T. Y. Chi, W. Y. Chen, P. C. Chiu, C. J. Wang, T. M. Hsu, and J.-I. Chyi, "An Electrically Driven Quasi-L2 Photonic Crystal Nano-Cavity with a Small Mode Volume", 21th Intl. Conf. Indium Phosphide and Related Materials, Newport Beach, U.S.A.,2009.
- 200.D.-W. Fan, Y.-C. Lin, H.-K. Lin, P.-C. Chiu, S.-H. Chen, and J.-I. Chyi, "Metal-Oxide-HEMT on 6.1 \AA Antimonides", 21th Intl. Conf. Indium Phosphide and Related Materials, Newport Beach, U.S.A., 2009.
- 201.Y.-C. Lin, T.-W. Fan, H.-K. Lin, P.-C. Chiu, and J.-I. Chyi, "Low-Leakage InAs/AlSb HEMT with High $f_{\text{t-Lg}}$ Product", 21th Intl. Conf. Indium Phosphide and Related Materials, Newport Beach, U.S.A., 2009.
- 202.H.-C. Lin, G.-Y. Lee, H.-H. Liu, N.-W. Hsu, C.-C. Wu, and J.-I. Chyi, "Polarization-Enhanced Mg Doping in InGaN/GaN Superlattices for Green Light-Emitting Diodes", IEEE CLEO, Baltimore, U.S.A., 2009.
- 203.Y.-T. Li, C.-S. Yang, C.-L. Pan, J.-W. Shi, C.-Y. Huang, N.-W. Chen, S.-H. Chen, and J.-I. Chyi, "Distinct Dynamic Behaviors of High-Power Photonic-Transmitters Based on Uni-Traveling Carrier and Separated-Transport-Recombination Photodiodes", IEEE CLEO, Baltimore, U.S.A., 2009.
- 204.P.-H. Wang, Y.-C. Wen, S.-H. Guo, H.-C. Lin, P.-R. Chen, J.-W. Shi, J.-I. Chyi, C.-M. Lai, and C.-K. Sun, "Bias-Controlled Coherent Acoustic Phonon Generation in InGaN/GaN Multiple-Quantum-Wells Light Emitting Diodes", IEEE CLEO, Baltimore, U.S.A., 2009.
- 205.Y.-C. Tseng, S. P. Lee, C. J. Wang, P. C. Chiu, W. Y. Chen, T. M. Hsu, and J.-I. Chyi, "Single-Mode Quasi-L2 Photonic Crystal Micro-Cavity for 1.3 μm InAs Quantum Dots Light Sources", IEEE CLEO, Baltimore, U.S.A., 2009.
- 206.H.-C. Lin, H.-H. Liu, G.-Y. Lee, J.-I. Chyi, C.-M. Lu, K.-L. Fang, C.-W. Chao, T.-C. Wang, C.-J. Chang, and S. W. S. Chi, "Growth and Characterization of GaN on Micro-Lens Patterned Sapphire Substrates", Asia-Pacific Workshop on Wide Gap Semiconductors, Zhangjiajie, China, 2009.
- 207.J.-I. Chyi, P.-C. Chiu, W.-T. Hsu, Y.-A. Liao, and W.-H. Chang, "Optical Properties of InAs/GaAs Quantum Dots with a $\text{GaAs}_{1-x}\text{Sb}_x$ Overgrown Layer," SemiconNano, Anan, Japan, 2009. (Invited)
- 208.J.-I. Chyi and H.-C. Lin, "Growth and Process Technologies for High Efficiency InGaN-Based Light-Emitting Diodes," AVS 56th Intl. Symp., San Jose, U.S.A., 2009. (Invited)
- 209.G.-Y. Lee, H.-H. Liu, Y.-L. Lan, H.-C. Lin, J.-I. Chyi, S. J. Pearton, and F. Ren, "High Performance AlGaN/GaN Schottky Rectifiers Fabricated on AlN Buffer Layer", 8th Intl. Conference on Nitride Semiconductors, Jeju, Korea, 2009.
- 210.H.-H. Liu, P.-R. Chen, H.-C. Lin, and J.-I. Chyi, "Reduction of the Efficiency Droop of InGaN Quantum Well Light-Emitting Diodes by Using an $\text{In}_{0.04}\text{Ga}_{0.96}\text{N}$ Prelayer and Trimethylindium Treatment", 8th Intl. Conference on Nitride Semiconductors, Jeju, Korea, 2009.
- 211.P.-R. Chen, H.-H. Liu, G.-Y. Lee, H.-C. Lin, and, J.-I. Chyi, "Efficiency Enhancement of InGaN LEDs with an n-type AlGaN/GaN/InGaN Current Spreading Layer," 8th Intl. Conference on Nitride Semiconductors, Jeju, Korea, 2009.
- 212.P.-R. Chen, H.-H. Liu, G.-Y. Lee, H.-C. Lin, and, J.-I. Chyi, "Efficiency Enhancement of InGaN LEDs with an n-type AlGaN/GaN/InGaN Current Spreading Layer," Photonic West, OPTO 2010, San Francisco, U.S.A., 2010.
- 213.H.-H. Liu, P.-R. Chen, H.-C. Lin, and J.-I. Chyi, "Reduction of the Efficiency Droop of InGaN Quantum Well Light-Emitting Diodes by Using an $\text{In}_{0.04}\text{Ga}_{0.96}\text{N}$ Prelayer and Trimethylindium Treatment" Photonic West, OPTO 2010, San Francisco, U.S.A., 2010.
- 214.C.-M. Chang, S.-H. Chen, S.-Y. Wang, and J.-I. Chyi, "Characterization of InAlAs/ $\text{In}_{0.25}\text{Ga}_{0.75}\text{As}_{0.72}\text{Sb}_{0.28}$ /InGaAs Double Heterojunction Bipolar Transistors", 22th Intl. Conf. Indium Phosphide and Related Materials (IPRM), Kagawa, Japan, 2010.
- 215.S.-Y. Wang, P.-Y. Chiang, C.-M. Chang, S.-H. Chen, and J.-I. Chyi, "Low Surface Recombination Velocity in InAlAs/InGaAsSb/InGaAs Double Heterojunction Bipolar Transistors", 22th Intl. Conf. Indium Phosphide and Related Materials (IPRM), Kagawa, Japan, 2010.
- 216.H.-C. Ho, T.-W. Fan, G.-Y. Liau, H.-K. Lin, P.-C. Chiu, and J.-I. Chyi, "DC and RF Characteristics of InAs-Channel MOS-MODFETs Using PECVD SiO_2 as Gate Dielectrics", 22th Intl. Conf. Indium Phosphide and Related Materials (IPRM), Kagawa, Japan, 2010.
- 217.W.-Z. He, H.-K. Lin, P.-C. Chiu, and J.-I. Chyi, " N^+ -InGaAs/InAlAs Recessed Gates for InAs/AlSb HFET Development", 22th Intl. Conf. Indium Phosphide and Related Materials (IPRM), Kagawa, Japan, 2010.

- 218.S.-Y. Lin, C.-C. Tseng, W.-H. Lin, S.-C. Mai, S.-Y. Wu, S.-H. Chen, and J.-I. Chyi, "Room-Temperature Operation Type-II GaSb/GaAs Quantum-Dot Infrared Light-Emitting Diode", 22th Intl. Conf. Indium Phosphide and Related Materials (IPRM), Kagawa, Japan, 2010.
- 219.P.-C. Chiu, H.-C. Hao, H.-K. Lin, and J.-I. Chyi, "High Hole Mobility Strained InGaSb Quantum Wells Grown on GaAs", 37th Intl. Symp. Compound Semiconductors (ISCS), Kagawa, Japan, 2010.
- 220.S.-H. Chen, P.-Y. Chiang, and J.-I. Chyi, "Very Low Contact Resistivity Pt/Ti/Pt/Au Contacts to p-InGaAsSb Grown by Molecular Beam Epitaxy", 37th Intl. Symp. Compound Semiconductors (ISCS), Kagawa, Japan, 2010.
- 221.J.-I. Chyi, "Optical Properties of InAs/GaAs Quantum Dots with a $\text{GaAs}_{1-x}\text{Sb}_x$ Overgrown Layer," MBE Taiwan, Taipei, Taiwan, R.O.C., 2010. (Invited)
- 222.J.-I. Chyi, "Optical Properties of InAs/GaAs Quantum Dots with a $\text{GaAs}_{1-x}\text{Sb}_x$ Overgrown Layer," Intl. Nano-Optoelectronic Workshop, Beijing-Changchun, China, 2010. (Invited)
- 223.C.-Y. Chen, J.-I. Chyi, W.-Y. Chen, and T.-M. Hsu, "Carrier Dynamics in ZnSeO Grown on GaAs by Molecular Beam Epitaxy", 16th Intl. Conf. on Molecular Beam Epitaxy, Berlin, Germany, 2010.
- 224.P.-C. Chiu, H.-C. Hao, H.-K. Lin, and J.-I. Chyi, "High Hole Mobility Strained InGaSb Quantum Wells Grown on GaAs by Molecular Beam Epitaxy", 16th Intl. Conf. Molecular Beam Epitaxy, Berlin, Germany, 2010.
- 225.H.-H. Liu, P.-R. Chen, and J.-I. Chyi, "Roles of Electron Spillover and Auger Recombination in the Efficiency Droop of InGaN Light-Emitting Diodes" Intl. Workshop Nitride Semiconductors, Tampa, U.S.A., 2010.
- 226.G.-Y. Lee, H.-H. Liu, P.-Y. Lin, and J.-I. Chyi, "Low Leakage Current AlGaN/GaN Schottky Barrier Diodes Fabricated on AlN Buffer Layer", Intl. Workshop Nitride Semiconductors, Tampa, U.S.A., 2010.
- 227.H.-Y. Lin, H.-H. Liu, C.-Z. Liao, and J.-I. Chyi, "Growth of Crack-Free Semi-Polar (1-101) GaN on a 7°-off (001) Si Substrate by Metal-Organic Chemical Vapor Deposition," Photonics West, OPTO 2011, San Francisco, U.S.A., 2011.
- 228.C.-Y. Chen, L.-H. Siao, J.-I. Chyi, C.-K. Chao, and C.-H. Wu, "Electrical Properties of In-doped ZnO Films Grown by Plasma-Assisted Molecular Beam Epitaxy on GaN(0001) Template," Photonic West, OPTO 2011, San Francisco, California, U.S.A., 2011.
- 229.J.-W. Shi, W.-C. Weng , F.-M. Kuo, J.-I. Chyi, S. Pinches, M. Geen, and A. Joel, "Oxide-Relief Vertical-Cavity Surface-Emitting Lasers with Extremely High Data-Rate/Power-Dissipation Ratios," OFC, Los Angeles, U.S.A., 2011.
- 230.C.-J. Wang, W.-Y. Chen, Y.-C. Tseng, M.-H. Shih, T.-M. Hsu, and J.-I. Chyi, "Single Mode Operation 1.3 um InAs Quantum Dot Lasers Based on a Small Mode Volume qL2 Photonic Crystal Nano-Cavity," 4th 2011 IEEE International NanoElectronics Conference, Kweishan, Taiwan, R.O.C., 2011.
- 231.C.-A. Chang, S.-H. Chen, S.-Y. Wang, C.-M. Chang, and J.-I. Chyi, "Weak Emitter-Size Effects in InP/In_{0.37}Ga_{0.63}As_{0.89}Sb_{0.11}/In_{0.53}Ga_{0.47}As Double Heterojunction Bipolar Transistors," 23th Intl. Conf. Indium Phosphide and Related Materials (IPRM), Berlin, Germany, 2011.
- 232.J.-I. Chyi, "Semiconductor Quantum Dots for Electronics and Photonics: Promises and Accomplishments," Rump Session, 23th Intl. Conf. Indium Phosphide and Related Materials (IPRM), Berlin, Germany, 2011. (Panelist)
- 233.Y.-A. Liao, W.-T. Hsu, W.-H. Chang, P.-C. Chiu, and J.-I. Chyi, "Spatially Indirect Excitons in Type-II InAs/GaAsSb Quantum Dots," 38th International Symposium on Compound Semiconductor, Berlin, Germany, 2011.
- 234.C.-J. Wang, W.-Y. Chen, Y. C. Tseng, M. H. Shih, T. M. Hsu, and J.-I. Chyi, "Room Temperature Operation 1.3 μm InAs Quantum Dot Quasi-L2 Photonic Crystal Nano-Cavity Lasers," 38th International Symposium on Compound Semiconductor, Berlin, Germany, 2011.
- 235.Y. S. Lin, S. H. Chen, S. Y. Wang, and J.-I. Chyi, "Current Stress of Beryllium-Doped InAlAs/InGaAsSb/InGaAs HBTs," 38th International Symposium on Compound Semiconductors, Berlin, Germany, 2011.
- 236.W.-S. Liu, H.-M. Wu, T.-L. Hsu, F.-H. Tsao, Y.-A. Liao, and J.-I. Chyi, "Enhancement of Intermediate Band Solar Cell by Vertically Aligned InAs/GaAsSb Quantum Dots," 38th International Symposium on Compound Semiconductors, Berlin, Germany, 2011.
- 237.H.-H. Liu, M.-J. Li, and J.-I. Chyi, "High Performance InGaN Quantum Well Light-Emitting Diodes with Reversed Piezoelectric Polarization Field," 5th Asia-Pacific Workshop on Widegap Semiconductors, Toba, Japan, 2011.
- 238.G.-Y. Lee, H.-H. Liu, and J.-I. Chyi, "High Figure-of-Merit AlGaN/GaN Schottky Barrier Diodes Fabricated on AlGaN/AlN Buffer Layer," 5th Asia-Pacific Workshop on Widegap Semiconductors, Toba, Japan, 2011.
- 239.C.-Y. Yang, C.-Y. Chen, J.-I. Chyi, M.-D. Yang, and C.-H. Wu, "Specific Contact Resistivity of Ti/Al/Ni/Au Ohmic Contacts on Ga-doped ZnO Films," 5th Asia-Pacific Workshop on Widegap Semiconductors, Toba, Japan, 2011.

- 240.C.-Y. Chen, L.-H. Siao, J.-I. Chyi, C.-K. Chao, and C.-H. Wu, "Properties of In-doped ZnO films Grown on (0001) GaN Templates by Plasma-Assisted Molecular Beam Epitaxy," 5th Asia-Pacific Workshop on Widegap Semiconductors, Toba, Japan, 2011.
- 241.T.-Y. Ke, G.-Y. Lee, H.-C. Chiu, J.-I. Chyi, and Y.-M. Hsin, "A 600V AlGaN/GaN Schottky Barrier Diode on Si Substrate with Fast Reverse Recovery Time," 9th Intl. Conf. Nitride Semiconductors, Glasgow, UK, 2011.
- 242.J.-I. Chyi, H.-H. Liu, H.-Y. Lin, and C.-Z. Liao, "Growth of Semi-Polar GaN/InGaN on V-Grooved 7°-off (100) Si Substrates by Metal-Organic Chemical Vapor Deposition," 2011 Intl Nano-Optoelectronics Workshop, Wurzburg, Germany, 2011. (Invited)
- 243.C.-A. Lin, P.-C. Chiu, M.-L. Huang, H.-K. Lin, T.-H. Chiang, W.-C. Lee, Y.-C. Chang, Y.-H. Chang, J.-I. Chyi, G. J. Brown, J. Kwo, and M. Hong, "InAs MOS devices with MBE-grown Gd_2O_3 passivation", NAMBE 2011, San Diego, U.S.A., 2011.
- 244.J.-I. Chyi, C.-J. Wang, P.-C. Chiu, W.-Y. Chen, and T.-M. Hsu, "1.3 μm InAs Quantum Dot Quasi-L2 Photonic Crystal Nano-Cavity Light Sources," SemiconNano2011, Traunkirchen, Austria, 2011. (Invited)
- 245.C. Lo, C. Chang, S. Chen, C. Chang, S. Wang, J.-I. Chyi, I. Kravchenko, S. Pearton, and F. Ren, "Fabrication and Characterization of InAlAs/InGaAsSb/InGaAs Double Heterojunction Bipolar Transistors," 220th ECS Meeting, Boston, U.S.A., 2011.
- 246.J.-I. Chyi, H.-H. Liu, H.-Y. Lin, and C.-Z. Liao, "Growth of Semi-Polar GaN/InGaN on V-Grooved 7°-off (100) Si Substrates by Metal-Organic Chemical Vapor Deposition," Intl Conf. Advanced Materials and Devices, Jeju, Korea, 2011. (Invited)
- 247.M.-J. Lee, H.-H. Liu, and J.-I. Chyi, "InGaN/GaN quantum-well light-emitting diodes with a reversed piezoelectric polarization field," Photonics West, OPTO 2012, San Francisco, U.S.A., 2012.
- 248.C.-W. Lin, H.-C. Chiu, J. S. Fu, G.-Y. Lee, and J.-I. Chyi, "A Gold-free Fully Copper Metalized AlGaN/GaN Power HEMTs on Si substrate," Intl Conf Compound Semiconductor MANufacturing TECHnology, Boston, U.S.A., 2012.
- 249.J.-I. Chyi, H.-C. Kuo, S.-J. Chang, D.-S. Wuu, and T.-H. Yang, "Technologies of High Efficiency and Color Rendering Index White LEDs," Intl LED and Green Lighting Workshop, Seoul, Korea, 2012. (Invited)
- 250.P.-C. Chiu, H.-C. Ho, S.-W. Lee, Y.-M. Hsin, and J.-I. Chyi, "Improving Electron Mobility of InAs Quantum Well High Electron Mobility Transistors Grown on Si Substrates by a GaAs/GaAsSb Step-Graded Buffer Layer," 39th International Symposium on Compound Semiconductors, Santa Barbra, U.S.A., 2012.
- 251.C. M. Chang, S. Y. Wang, J. H. Lin, W. T. Hsu, W. H. Chang, and J.-I. Chyi, "Minority Carrier Recombination Mechanisms of Heavily Be-Doped InGaAsSb," 39th International Symposium on Compound Semiconductors, Santa Barbra, U.S.A., 2012.
- 252.J.-I. Chyi, C.-Y. Chen, and L.-H. Hsiao, "Growth and Characterization of Un-doped and Ga-doped ZnO Films Grown by Plasma-Assisted Molecular Beam Epitaxy," 17th Intl. Conf. on Molecular Beam Epitaxy, Nara, Japan, 2012.
- 253.C.-Y. Chen, C.-Y. Yang, J.-I. Chyi, M.-D. Yang, and C.-H. Wu, "Optical and Electrical Properties of ZnSeO Alloys Grown by Plasma-Assisted Molecular Beam Epitaxy," 17th Intl. Conf. on Molecular Beam Epitaxy, Nara, Japan, 2012.
- 254.C. Huang, G. Lee, J.-I. Chyi, H. Cheng, C. Hsu, Y. Hsu, F. Ren, and Y. Wang, "Study of Protein-Peptide Binding Affinity Using AlGaN/GaN High Electron Mobility Transistors," PRiME, Honolulu, U.S.A., 2012.
- 255.Y. Hsu, G. Lee, J.-I. Chyi, C. Chang, C. Huang, C. Hsu, T. Huang, F. Ren, and Y. Wang, "Detection of SARS Coronavirus Nucleocapsid Protein Using AlGaN/GaN High Electron Mobility Transistors," PRiME, Honolulu, U.S.A., 2012.
- 256.H.-L. Lin, G.-Y. Lee, and J.-I. Chyi, "Normally-off Insulating-Gate AlInN/GaN/AlGaN/GaN Heterostructure Field-Effect Transistors with a High Threshold Voltage," Intl. Workshop Nitride Semiconductors, Sapporo, Japan, 2012.
- 257.G.-Y. Lee, H.-H. Liu, P.-Y. Lin, and J.-I. Chyi, "High Figure-of-Merit AlGaN/GaN Schottky Barrier Biodes Fabricated on an AlGaN/AlN Buffer Layer with High Edge Dislocation Density," Intl. Workshop Nitride Semiconductors, Sapporo, Japan, 2012.
- 258.L.-C. Cheng, H.-H. Liu, G.-Y. Lee, and J.-I. Chyi, "Reducing Threading Dislocations in GaN Grown on (111) Si by Double GaN Island Growth Method", Intl. Workshop Nitride Semiconductors, Sapporo, Japan, 2012.
- 259.J.-I. Chyi, "LED University Research in Taiwan," 50th Anniversary of the LED Symposium," Urbana-Champaign, U.S.A., 2012. (Invited)
- 260.L.-C. Cheng, H.-H. Liu, C.-Z. Liao, G.-Y. Lee, and J.-I. Chyi, "Reducing threading dislocations in GaN grown on (111) Si by double GaN island growth method," Photonics West, OPTO 2013, San Francisco, U.S.A., 2013.
- 261.J.-I. Chyi, "Nanostructures Grown by Sb-Mediated Molecular Beam Epitaxy for Device Applications," European-MRS Spring Meeting, Strasbourg, France, 2013. (Invited)
- 262.C.-Y. Chen, N.-T. Yeh, and J.-I. Chyi, "Low Resistivity and Low Compensation Ratio Ga-Doped ZnO Films Grown by Plasma-Assisted Molecular Beam Epitaxy," Asia-Pacific Workshop on Wide Gap Semiconductors, Taipei, R.O.C., 2013.

- 263.J.-I. Chyi, S.-H. Chen, and S.-Y. Wang, "Type I/Type II InP Heterojunction Bipolar Transistors," Asia-Pacific Radio Science Conference, Taipei, R.O.C., 2013. (Invited)
- 264.P.-T. Tu, G.-Y. Lee, N.-T. Yeh, and J.-I. Chyi, "High Mobility InAlN/AlN/GaN HEMTs Grown on 6 inch Si Substrates," 10th Intl. Conference on Nitride Semiconductors, Washington D C, U.S.A., 2013.
- 265.H.-H. Liu, L.-C. Cheng, G.-Y. Lee, N.-T. Yeh, C.-Z. Liao, and J.-I. Chyi, "Efficiency Improvement of GaN Light-Emitter Diodes on Si with a Double-Island Buffer Layer," CLEO-PR, Kyoto, Japan, 2013.

Domestic conferences

- 266.J.-I. Chyi and H. Morkoc, "MBE Growth of InSb on GaAs", 17th EDMS, Taipei, Taiwan, R.O.C. 1991.
- 267.J.-I. Chyi, H.-P. Hwang, J.-L. Shieh, and T.-S. Wei, "Characterization of the Recombination Currents in GaAs/AlGaAs Heterojunction Diodes", 1992 International EDMS, Taipei, Taiwan, R.O.C. 1992.
- 268.W. B. Chiou, T. S. Yih, C. T. Kuo, J.-I. Chyi, and J. W. Hong, "Persistent Photoluminescence from Porous Silicon", Annual Meeting of Physics Society, Taiwan, R.O.C. 1993.
- 269.J.-I. Chyi, T.-S. Wei, J.-W. Hong, W. Lin, and Y.-K. Tu, "High Performance InGaAs MSM Photodetectors", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 270.R.-M. Lin, M.-T. Yang, J.-L. Shieh, Y.-J. Chan, C.-H. Lin, and J.-I. Chyi, "Characteristics of Unstrained $In_{0.3}Ga_{0.7}As/In_{0.29}Al_{0.71}As$ Heterostructures Grown on GaAs", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 271.R.-H. Yang, J.-L. Shieh, R.-M. Lin, and J.-I. Chyi, "GaAs Metal-Semiconductor-Metal Photodetectors with AlGaAs Capping and Buffer Layers", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 272.J.-L. Shieh, R.-M. Lin, T.-E. Nee, and J.-I. Chyi, "Molecular Beam Epitaxial Growth of $In_xAl_{1-x}As$ on GaAs", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 273.C.-T. Kuo, N.-F. Shin, T.-S. Jen, W.-C. Tray, J.-I. Chyi, and J.-W. Hong, "Characteristics of a Schottky-Barrier-Type Porous Silicon Light Emitting Diode", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 274.M.-T. Yang, Y.-J. Chan, T.-J. Yeh, and J.-I. Chyi, "High Uniformity of AlGaAs/ $In_{0.15}Ga_{0.85}As$ Doped-Channel Structures Grown by MBE on 3"-GaAs Wafers", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 275.M.-T. Yang, Y.-J. Chan, R.-M. Lin, J.-L. Shieh and J.-I. Chyi, "Lattice-Matched and Pseudomorphic AlGaAs/ $In_xGa_{1-x}As(0 < x < 0.25)$ Doped-Channel FETs", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 276.C.-S. Wu, Y.-J. Chan, C.-D. Chan, T.-M. Chuang, F.-Y. Juang, C.-C. Chang, and J.-I. Chyi, "Submicron Pseudomorphic AlGaAs/ $In_{0.75}Ga_{0.25}As$ HEMT and Its Short-channel Effect", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 277.Y.-T. Chen, C.-D. Chen, S.-J. Chen, T.-M. Chuang, F.-Y. Juang, C.-H. Chang, Y.-J. Chan, J.-I. Chyi, "DC and Microwave Performance of Self-aligned AlGaAs/GaAs HBTs Fabricated with InGaAs Emitter Cap Layers", EDMS, Chung-Li, Taiwan, R.O.C. 1993.
- 278.H.-P. Hwang, J.-L. Shieh, R.-M. Lin, J.-I. Chyi, S. L. Tu, C. K. Peng, S. J. Yang, "High Peak-to-valley Current Ratio $In_{0.3}Ga_{0.7}As/In_{0.29}Al_{0.71}As$ Resonant Tunneling Diodes Grown on GaAs", 1994 Intl. EDMS, Hsin-Chu, Taiwan, R.O.C. 1994.
- 279.R.-H. Yuang, J.-L. Shieh, R.-M. Lin, H.-C. Shieh, and J.-I. Chyi, "The Effects of AlGaAs Cap Layers on the DC and Speed Performance of GaAs Metal-Semiconductor-Metal Photodetectors", 1994 Intl. EDMS, Hsin-Chu, Taiwan, R.O.C. 1994.
- 280.Y.-J. Chan, M.-T. Yang, C.-S. Wu, and J.-I. Chyi, " $In_{0.29}Al_{0.71}As/In_{0.3}Ga_{0.7}As$ Heterostructure Field-Effect Transistors Grown on GaAs Substrates", 1994 Intl. EDMS, Hsin-Chu, Taiwan, R.O.C. 1994.
- 281.C.-D. Chen, S.-J. Chen, Y.-T. Chen, T.-M. Chuang, F.-Y. Juang, C.-C. Chang, Y.-J. Chan, J.-I. Chyi, "0.2 μm AlGaAs/InGaAs Pseudomorphic HEMT Fabricated by Optical Lithography", 1994 Intl. EDMS, Hsin-Chu, Taiwan, R.O.C. 1994.
- 282.C. R. Hua, W. C. Chou, J.-I. Chyi, and J.-L. Shieh, "Sequence Reversal of Heavy and Light Hole Excitonic Transition in Quantum Wells", Annual Meeting of Physics Society, Kaohsiung, 1995.
- 283.Y.-J. Chan, C.-C. Chu, R.-H. Yuang, T.-J. Yeh, J.-L. Shieh, J.-I. Chyi, and C.-T. Lee, "The Integration of InAlAs/InGaAs HIGFETs and MSM Photodetectors for Fiber Communication", 1st Radio Science Symposium, Kaohsiung, Taiwan, R.O.C. 1995
- 284.J.-H. Gau, J.-I. Chyi, S.-K. Wang, J.-L. Shieh, and J.-W. Pan, "Enhanced Carrier and Optical Confinement of GaAs/AlGaAs Single Quantum Well Lasers with Graded Multi-Quantum Barrier", EDMS, Kaohsiung, Taiwan, R.O.C. 1995.
- 285.H.-P. Hwang, C.-C. Chou, J.-L. Shieh, J.-W. Pan, and J.-I. Chyi, "Anomalous Behavior of Heavily Be-doped AlGaAs/GaAs HBTs under High Current Stress", EDMS, Kaohsiung, Taiwan, R.O.C. 1995.
- 286.H.-C. Shieh, R.-H. Yuang, K.-T. Her, and J.-I. Chyi, "The Small-Signal Equivalent Circuit of Large Area GaAs Metal-Semiconductor-Metal Photodetector and Its Application in OEIC Receiver", EDMS, Kaohsiung, Taiwan, R.O.C. 1995.
- 287.T.-E. Nee, C.-T. Lee, J.-L. Shieh, J.-W. Pan and J.-I. Chyi, "Molecular Beam Epitaxial Growth of Self-Assembled $In_{0.5}Ga_{0.5}As$ Quantum Dots on $In_{0.1}Ga_{0.9}As$ and $In_{0.1}Al_{0.9}As$ ", Intl. Electron Devices and Materials Symposium, Hsin-Chu, Taiwan, R.O.C., 1996.
- 288.H.-P. Hwang, Y.-S. Cheng, J.-L. Shieh, J.-W. Pan, and J.-I. Chyi, "Improved Characteristics of AlGaAs/GaAs HBTs Passivated by Amorphous Si and SiC", Intl. Electron Devices and Materials Symposium, Hsin-Chu, Taiwan, R.O.C., 1996.

- 289.H.-P. Hwang, J.-L. Shieh, and J.-I. Chyi, "In_{0.32}Al_{0.68}As/In_{0.33}Ga_{0.67}As HBTs Grown on GaAs for High Power Application", Intl. Electron Devices and Materials Symposium, Hsin-Chu, Taiwan, R.O.C., 1996.
- 290.R.-H. Yuang, J.-L. Shieh, J.-I. Chyi, and J.-S. Chen, "High-Speed Operation at Low Bias in Recessed-Cathode GaAs Metal-Semiconductor-Metal Photodetectors", Intl. Electron Devices and Materials Symposium, Hsin-Chu, Taiwan, R.O.C., 1996.
- 291.M. C. Liu, Y. J. Chan, J.-W. Pan, and J.-I. Chyi, "Enhanced Device Performance by Pseudomorphic InGaAs Channel in InP-Based Doped-channel FETs", Intl. Electron Devices and Materials Symposium, Hsin-Chu, Taiwan, R.O.C., 1996.
- 292.J.-L. Shieh, M.-N. Chang, and J.-I. Chyi, "Defect Reduction in InGaAs/InAlAs Heterostructures by Low Temperature Grown Metamorphic InGaAs and InAlAs Buffers", Intl. Electron Devices and Materials Symposium, Hsin-Chu, Taiwan, R.O.C., 1996.
- 293.W. C. Lee, T. M. Hsu, M. N. Chang, and J.-I. Chyi, "Optical Characterization of Annealed Low-Temperature Grown GaAs", Annual CMRS Meeting, Hsin-Chu, 1996.
- 294.H.-F. Hong, J.-I. Chyi, and S.-M. Lang, "The effects of Growth Conditions on the Surface Morphology of GaN Grown by Organometallic Vapor Phase Epitaxy", Annual CMRS Meeting, Hsin-Chu, 1996.
- 295.J.-W. Pan, K.-G. Chau, J.-I. Chyi, Y.-K. Tu, and J.-W. Liaw, "Experimental Studies of the Effects of Two-Stack Multiquantum Barrier on the Properties of 1.3 μm AlGaInAs/InP Quantum Well Lasers", Electron Devices and Materials Symposium, Chung-Li, Taiwan, 1997.
- 296.R.-H. Yuang, M. Tseng, J.-W. Pan, and J.-I. Chyi, "Monolithic Optoelectronic Integrated Circuit InGaAs MSM/HEMT Receiver", Electron Devices and Materials Symposium, Chung-Li, Taiwan, 1997.
- 297.R.-H. Yuang, M. Tseng, and J.-I. Chyi, "Monolithic OEIC GaAs Receivers Using Large-Area MSM Photodetectors", Electron Devices and Materials Symposium, Chung-Li, Taiwan, 1997.
- 298.J.-W. Pan, K.-G. Chau, J.-I. Chyi, Y.-K. Tu, and J.-W. Liaw, "Suppression of Electron and Hole Leakage in 1.3 μm AlGaInAs/InP Quantum Well Lasers Using Multiquantum Barrier" Optical and Photonics/Taiwan '97, Hsin-Chu, Taiwan, 1997.
- 299.M.-H. Chen, J.-W. Pan, and J.-I. Chyi, "High Performance 1.55 μm InAlGaAs Phosphorus-Free Lasers with Multiquantum Barrier at the p-Cladding Layer", Intl. Electron Devices and Materials Symposia, Tainan, Taiwan, 1998.
- 300.N.-T. Yeh, J.-M. Lee, T.-E. Nee, and J.-I. Chyi, "Room Temperature Operation of In_{0.5}Ga_{0.5}As Quantum Dot Lasers with High Characteristic Temperature", Intl. Electron Devices and Materials Symposia, Tainan, Taiwan, 1998.
- 301.C. C. Jaing, J.-J. Sheu, J. S. Chen, and J.-I. Chyi, "Low Leakage Current (Ba, Sr)TiO₃ Thin Films Prepared by Two-Step RF Magnetron Co-sputtering", Intl. Electron Devices and Materials Symposia, Tainan, Taiwan, 1998.
- 302.N.-T. Yeh, T.-E. Nee, P.-W. Shiao, J.-I. Chyi, and C.-T. Lee, "Characteristics of Multi-Stack Self-Assembled In_{0.5}Ga_{0.5}As Quantum Dots Lasers Grown on Vicinal Substrates", Intl. Photonics Conference, Taipei, Taiwan, 1998.
- 303.C.-C. Chuo, C.-M. Lee, T.-E. Nee, and J.-I. Chyi, "Effects of Thermal Annealing on the Luminescence and Structural Properties of High Indium Content InGaN/GaN Quantum Wells", Electron Devices and Materials Symposium, Kwei-San, Taiwan, 1999.
- 304.C.-C. Chuo, C.-M. Lee, T.-E. Nee, and J.-I. Chyi, "Piezoelectric Effect and Alloy Fluctuation in InGaN/GaN Single Quantum Well", Optics and Photonics Taiwan'99, Chung-Li, Taiwan, 1999.
- 305.W.-S. Liu, S.-H. Chen, N.-T. Yeh, T.-E. Nee and J.-I. Chyi, "Suppressing Temperature-Dependence of Emission Wavelength of Self-Assembled InAs Quantum Dots", Optics and Photonics Taiwan'99, Chung-Li, Taiwan, 1999.
- 306.C.C. Chen, K.L. Hsieh, G.C. Chi, C.C. Chuo, J.I. Chyi, and C.A. Chang, "Effects on Stimulated Emission of High-Indium-Content InGaN/GaN Single Quantum well Structure", Intl. Electron Devices and Materials Symposia (IEDMS 2000), Chung-Li, R.O.C., 2000.
- 307.C.C. Chuo, C.M. Lee, J.I. Chyi, M.N. Chang, and F.M. Pan, "Determination of Luminescence Mechanism in InGaN/GaN MQWs by Postgrowth Thermal Annealing", Intl. Electron Devices and Materials Symposia (IEDMS 2000), Chung-Li, R.O.C., 2000.
- 308.K.L. Hsieh, C.C. Chen, C.C. Lee, J.K. Sheu, G.C. Chi, C.C. Chuo, J.I. Chyi, and C.A. Chang, "Spatially and Spectrally Resolved Spectrum of GaN-Based Quantum Well Structure", Intl. Electron Devices and Materials Symposia (IEDMS 2000), Chung-Li, R.O.C., 2000.
- 309.S.-H. Chen, N.-T. Yeh, W.-S. Liu, and J.-I. Chyi, "All Solid Source MBE Growth of InP under Different Phosphorus Cracking Temperatures", Electron Devices and Materials Symposium, Kaohsiung, R.O.C., 2001.
- 310.C.-M. Lee, C.-C. Chuo, X.-F. Zheng, and J.-I. Chyi, "Temperature Dependence of the Recombination Zones in InGaN/GaN Light Emitting Diodes with Different P-type Layers", Electron Devices and Materials Symposium, Kaohsiung, R.O.C., 2001.
- 311.M.-Y. Tseng and J.-I. Chyi, "Effect of Passivation Layer on the High Frequency characteristics of InGaP/GaAs HBTs", Electron Devices and Materials Symposium, Kaohsiung, R.O.C., 2001.
- 312.S.-W. Feng, Y.-C. Cheng, Y.-Y. Chung, Y.-S. Lin, C. Hsu, K.-J. Ma, C.-C. Chuo, C.-M. Lee, and J.-I. Chyi, "Carrier Capture in InGaN/GaN Multiple Quantum Well Structures", Optics and Photonics Taiwan,

- Kaohsiung, R.O.C., 2001.
- 313.G.-T. Chen, C.-C. Chuo, C.-M. Lee, and J.-I. Chyi, "Temperature-Dependent Electroluminescence of InGaN/GaN Laser Diode Structure", Optics and Photonics Taiwan, Kaohsiung, R.O.C., 2001.
- 314.C.-C. Chuo, G.-T. Chen, C.-M. Lee, and J.-I. Chyi, "Temperature-Dependent Photoluminescence of InGaN/GaN Single Quantum Well", Optics and Photonics Taiwan, Kaohsiung, R.O.C., 2001.
- 315.W.-S. Liu, T.-P. Hsieh, J.-I. Chyi, L.-W. Lai, and W.-J. Ho, "High Reflectivity AlO/GaAs Distributed Bragg Reflectors Prepared by Wet Oxidation", Optics and Photonics Taiwan, Kaohsiung, R.O.C., 2001.
- 316.H.-M. Wu, Y.-S. Wang, L.-H. Peng, C.-C. Chuo, J.-I. Chyi, S.-M. Pan, J.-T. Hsu, and J.-Y. Chi, "Characterization of Large Area InGaN MQW LED", Optics and Photonics Taiwan, Kaohsiung, R.O.C., 2001.
- 317.J.-I. Chyi and C.-C. Chuo, "Optical Properties of InGaN/GaN Multiple Quantum Wells Grown by MOCVD", Optics and Photonics Taiwan, Taipei, R.O.C., 2002. (invited)
- 318.W.-S. Liu, Y.-C. Liu, T.-P. Hsieh, J.-I. Chyi, and N.-T. Yeh, "Improvement of Optical Properties of InAs Quantum Dots by Optimizing the Dot Density and Uniformity", Optics and Photonics Taiwan, Taipei, R.O.C., 2002.
- 319.P.-G. Chiou, T.-P. Hsieh, W.-S. Liu, J.-I. Chyi, and N.-T. Yeh, "Improvement of Lasing Characteristics of InAs/GaAs Quantum Dot Lasers by Rapid Thermal Annealing", Optics and Photonics Taiwan, Taipei, R.O.C., 2002.
- 320.G.-T. Chen, C.-C. Pan, C.-C. Chuo, M.-Y. Lin, C.-M. Lee, and J.-I. Chyi, "Influence of P-Type InGaN/GaN Superlattices on GaN-Based Light Emitters", Intl. Electron. Devices and Materials Symposium, Taipei, R.O.C., 2002.
- 321.M.-L. Lee, S.-H. Chen, M.-Y. Tseng, P.-H. Chen, S.-Y. Wang, and J.-I. Chyi, "The Effect of B-C Spacer on B-C Junction Turn-on Voltage and Current Blocking", Intl. Electron. Devices and Materials Symposium, Taipei, R.O.C., 2002.
- 322.P.-H. Chen, S.-H. Chen, M.-L. Lee, S.-Y. Wang, M.-Y. Tseng, and J.-I. Chyi, "InGaAs/InP DHBT with Doped Base-Collector Spacer" Electron. Devices and Materials Symposium, Keelung, R.O.C., 2003.
- 323.H.-C. Lin, G.-T. Chen, H.-L. Chang, C.-C. Pan, and J.-I. Chyi, "Pulsed Operation of InGaN/GaN Multiple Quantum Well Laser Diode Grown on Sapphire Substrate", Electron. Devices and Materials Symposium, Keelung, R.O.C., 2003.
- 324.M.-S. Chen, C.-C. Pan, C.-M. Lee, G.-T. Chen, and J.-I. Chyi, High Stability and Low Resistance WSix-based Ohmic Contacts on N-type GaN", Electron. Devices and Materials Symposium, Keelung, R.O.C., 2003.
- 325.C.-L. Hsieh, K.-H. Lin, G.-T. Chen, C.-C. Pan, J.-I. Chyi, and C.-K. Sun, "Propagation Studies of THz Nano Acoustic Waves in GaN," Optics and Photonics Taiwan, Taipei, Taiwan, R.O.C., 2003.
- 326.C.-W. Liu, C.-C. Pan, C.-L. Kao, and J.-I. Chyi, "Carrier Transport Behavior of InGaN-Based UV-Blue Two-Color LEDs", Intl. Electron. Devices and Materials Symposium, Hsinchu, Taiwan, R.O.C., 2004.
- 327.J.-I. Chyi and W.-S. Liu, "Electronic Structures of InAs Quantum Dots with Composite Overgrown Layers", Intl. Electron. Devices and Materials Symposium, Hsinchu, Taiwan, R.O.C., 2004. (Invited)
- 328.N.-T. Yeh, P.-C. Chiu, C.-C. Hong, Y.-T. Tsai, T.-P. Hsieh, J.-I. Chyi, and W.-J. Ho, "InGaAsN/GaAs Quantum Well Lasers Using Two-step Growth Technique", Intl. Electron. Devices and Materials Symposium, Hsinchu, Taiwan, R.O.C., 2004.
- 329.W.-Y. Chiu, F.-H. Huang, Y.-S. Wu, D.-M. Lin, S.-H. Chen, J.-W. Shi, J.-I. Chyi, and Y.-J. Chan, "Improvement of Mesa-Sidewall Leakage Current using BCB Sidewall Process in InGaAs/InP MSM Photodetector", Intl. Electron. Devices and Materials Symposium, Hsinchu, Taiwan, R.O.C., 2004.
- 330.Sheng S. Li, Lin Jiang, J.-I. Chyi, N.-T. Yeh, and W.-S. Liu, "Quantum Dot Infrared Photodetectors for Long Wavelength Infrared Applications", Intl. Electron. Devices and Materials Symposium, Hsinchu, Taiwan, R.O.C., 2004.
- 331.K.-H. Lin, C.-T. Yu, C.-L. Hsieh, T.-M. Liu, G.-T. Chen, C.-C. Pan, J.-I. Chyi, S.-W. Huang, P.-C. Li, and C.-K. Sun, "Nano seismology using a piezoelectric multiple quantum well structure," The Annual Meeting of Physical Society, Hsinchu, Taiwan, R.O.C., 2004.
- 332.C.-L. Hsieh, K.-H. Lin, C.-C. Pan, J.-I. Chyi, and C.-K. Sun, "Propagation Studies of THz Nano Acoustic Waves," The Annual Meeting of Physical Society, Hsinchu, Taiwan, R.O.C., 2004.
- 333.T.-P. Hsieh, N.-T. Yeh, P.-C. Chiu, W.-H. Chang, T.-M. Hsu, W.-J. Ho, and J.-I. Chyi, "1.55 μm Emission from InAs Quantum Dots Grown on GaAs", Optics and Photonics Taiwan, Jhongli, Taiwan, R.O.C., 2004.
- 334.Y.-C. Ting, G.-T. Chen, C.-C. Lee, C.-C. Chen, J.-I. Chyi, "Submicron Epitaxial Lateral Overgrowth of GaN ", Optics and Photonics Taiwan, Jhongli, Taiwan, R.O.C., 2004.
- 335.C.-L. Kao, C.-C. Pan, and J.-I. Chyi, "Large Area and Flip-chip Technology for GaN-based Light-emitting Diode", Optics and Photonics Taiwan, Jhongli, Taiwan, R.O.C., 2004.
- 336.T.-F. Kao, H.-H. Chang, L.-J. Chen, J.-Y. Lu, A.-S. Liu, Y.-C. Yu, R.-B. Wu, W.-S. Liu, and J.-I. Chyi, "A High Efficiency Frequency-tunable Edge-coupled Membrane Terahertz Photonic Transmitter with Coherently Controlled Optical Excitation", Optics and Photonics Taiwan, Jhongli, Taiwan, R.O.C., 2004.

- 337.H.-C. Hsu, J.-W. Shi, W.-S. Liu, F.-H. Huang, J.-I. Chyi, J.-Y. Lu, C.-K. Sun, and C.-L. Pan, “Demonstration of Separated-absorption-recombination P-I-N Photodiode for High-speed and High Saturation Power Performance”, Optics and Photonics Taiwan, Jhongli, Taiwan, R.O.C., 2004.
- 338.C.-A. Hsieh, J.-W. Shi, Y.-S. Wu, S.-H. Chen, F.-H. Huang, and J.-Y. Chyi, “Electro-absorption Modulator with Dual Depletion Region”, Optics and Photonics Taiwan, Jhongli, Taiwan, R.O.C., 2004.
- 339.K.-H. Lin, C.-T. Yu, C.-C. Pan, J.-I. Chyi, S.-W. Huang, P.-C. Li, and C.-K. Sun, “1D Nano-Ultrasonic scan with one-nanometer spatial resolution using an optical piezoelectric transducer,” Optics and Photonics Taiwan, Jhongli, Taiwan, R.O.C., 2004.
- 340.C.-T. Yu, C.-L. Hsieh, K.-H. Lin, C.-C. Pan, J.-I. Chyi and C.-K. Sun, “Generation of sub-terahertz frequency tunable nano-acoustic waves by optical coherent control,” Optics and Photonics Taiwan, Jhongli, Taiwan, R.O.C., 2004.
- 341.K.-H. Lin, C.-C. Pan, J.-I. Chyi, and C.-K. Sun, “Demonstration of Nano-Phononic Bandgap Crystal and Direct Measurement with Sub-THz Acoustic Waves,” The Annual Meeting of Physical Society, Kaohsiung, Taiwan, R.O.C., 2005.
- 342.C.-T. Yu, C.-L. Hsieh, K.-H. Lin, C.-C. Pan, J.-I. Chyi, and C.-K. Sun, “Optical coherent control of the nano-acoustic wave frequency in the sub-terahertz range,” The Annual Meeting of Physical Society, Kaohsiung, Taiwan, R.O.C., 2005.
- 343.C.-K. Sun, K.-H. Lin, C.-L. Hsieh, C.-T. Yu, Y.-C. Wen, C.-C. Pan, G.-T. Chen, J.-I. Chyi, S.-W. Huang, and P.-C. Li, “Nano-Ultrasonics,” The Annual Meeting of Physical Society, Kaohsiung, Taiwan, R.O.C., 2005.
- 344.T.-P. Hsieh, J.-I. Chyi, H.-S. Chang, W.-Y. Chen, and T.-M. Hsu, “Single Photon Emission from an InGaAs/GaAs Quantum Dot”, Optics and Photonics Taiwan, Tainan, Taiwan, R.O.C., 2005.
- 345.T.-P. Hsieh, H.-S. Chang, W.-Y. Chen, W.-H. Chang, T.-M. Hsu, N.-T. Yeh, W.-J. Ho, P.-C. Chiu, and J.-I. Chyi, “Growth of Low-Density InGaAs Quantum Dot for Single Photon Source”, Electron. Devices and Materials Symposium, Kaohsiung, Taiwan, R.O.C., 2005.
- 346.C.-W. Lin, C.-C. Pan and J.-I. Chyi, “Emission Characteristics of Array-Type Ultraviolet Light Emitting Diodes”, Electron. Devices and Materials Symposium, Kaohsiung, R.O.C., 2005.
- 347.W.-P. Huang, K Remashan, C.-C. Pan and J.-I. Chyi, “High Voltage Mesa Type n-GaN Schottky Diodes”, Electron. Devices and Materials Symposium, Kaohsiung, R.O.C., 2005.
- 348.S-B Chang, G-T Chen, C-C Pan, and J-I Chyi, “High Quality GaN Buffer Layer Grown By Two-Step Growth”, Optic and photonics Taiwan, Tainan, Taiwan, R.O.C., 2005.
- 349.S.-H. Chen, S.-Y. Wang, R.-J. Hsieh, and J.-I. Chyi, “InP/InGaAsSb/InGaAs HBTs with an InGaAsSb Base Grown by Solid-Source Molecular Beam Epitaxy”, Intl. Electron Devices and Materials Symposium, Tainan, Taiwan, R.O.C., 2006.
- 350.S.-Y. Wang, S.-H. Chen, R.-J. Hsieh and J.-I. Chyi, “Electron Saturation Velocity of Composite Collector InP/InGaAs DHBTs” Intl. Electron Devices and Materials Symposium, Tainan, Taiwan, R.O.C., 2006.
- 351.T.-P. Hsieh, H.-S. Chang, W.-Y. Chen, W.-H. Chang, T.-M. Hsu, N.-T. Yeh, W.-J. Ho, P.-C. Chiu, and J.-I. Chyi, “Enhancing Luminescence Efficiency of InAs Quantum Dots at 1.5 μm ”, Intl. Electron. Devices and Materials Symposium, Tainan, Taiwan, R.O.C., 2006.
- 352.C.-H. Hsieh, C.-C. Pan, C.-W. Lin, and J.-I. Chyi, “Emission Intensity Improvement of InGaN Ultraviolet Light-Emitting Diodes Grown on Wet-Etched Sapphire Substrates”, Optics and Photonics, Hsinchu, Taiwan, R.O.C., 2006.
- 353.T.-P. Hsieh, H.-S. Chang, W.-Y. Chen, T. M. Hsu, and J.-I. Chyi, “Single Photon Emission from an InGaAs Quantum Dot on a Nano-Plane”, Optics and Photonics, Hsinchu, Taiwan, R.O.C., 2006.
- 354.M.-J. Shiau, P.-C. Chiu, W.-S. Liu, T.-P. Hsieh, and J.-I. Chyi, “The Effects of Antimony Irradiation on the Optical Properties of InAs QDs”, Optics and Photonics, Hsinchu, Taiwan, R.O.C., 2006.
- 355.C.-Y. Chen, C.-H. Chang, T.-P. Hsieh, P.-C. Chiu, J.-I. Chyi, “Enhancing Luminescence Efficiency of InAs Quantum Dots at 1.5 μm by Using a Carrier Blocking Layer”, Optics and Photonics, Hsinchu, Taiwan, R.O.C., 2006.
- 356.H.-C. Lin, R.-S. Lin, J.-I. Chyi, and C.-M. Lee, “A Maskless Sapphire Substrate Wet-Etching Method for Enhancing the Light Output of InGaN Light-Emitting Diodes”, Optics and Photonics, Taichung, Taiwan, R.O.C., 2007.
- 357.N.-W. Hsu, G.-T. Chen, H.-H. Liu, and J.-I. Chyi, “Optical Properties of Semipolar InGaN/GaN Light Emitting Diodes” Optics and Photonics, Taichung, Taiwan, R.O.C., 2007.
- 358.Y.-C. Tseng, C.-J. Wang, P.-C. Chiu, T.-P. Hsieh, W.-Y. Chen, M.-H. Shih, T.-M. Hsu, and J.-I. Chyi, “Extremely Low Mode-volume of Quasi-H1 Photonic Crystal Micro-Cavity with 1.3 μm InAs QDs”, Optics and Photonics, Taichung, Taiwan, R.O.C., 2007.
- 359.C.-J. Wang, Y.-C. Tseng, P.-C. Chiu, T.-P. Hsieh, W.-Y. Chen, M.-H. Shih, T.-M. Hsu, and J.-I Chyi, “High Purcell Factor of Photonic Crystal Nano-Cavity with a Single Layer of 1.3 μm InAs Quantum Dots”, Optics and Photonics, Taichung, Taiwan, R.O.C., 2007.

- 360.S. H. Chen, K. H. Teng, S. Y. Wang, H. Y. Chen, and J.-I. Chyi, "High Performance InP/In0.37Ga0.63As0.89Sb0.11/In0.53Ga0.47As Double Heterojunction Bipolar Transistors", MBE Taiwan 2008, Hsinchu, Taiwan, R.O.C., 2008.
- 361.P. C. Chiu, W.-S. Liu, M.-J. Hsiou, J.-I. Chyi, W.-Y. Chen, H.-S. Chang, and T.-M. Hsu, "Improving Long Wavelength InAs Quantum Dots by an InGaAsSb Overgrown Layer", MBE Taiwan 2008, Hsinchu, Taiwan, R.O.C., 2008.
- 362.Y. C. Tseng, C. J. Wang, P. C. Chiu, T. P. Hsieh, W. Y. Chen, M. H. Shih, W. H. Chang, T. M. Hsu, and J.-I. Chyi, "Quasi-H1 Photonic Crystal Micro-Cavities with an Extremely Low Mode-Volume for 1.3 μm InAs QD Single Photon Sources", MBE Taiwan 2008, Hsinchu, Taiwan, R.O.C., 2008.
- 363.H. Y. Chen, S. H. Chen, K. H. Teng, S. Y. Wang, and J.-I. Chyi, "Pseudomorphic InGaAsSb Base DHBT Grown by Solid-Source Molecular Beam Epitaxy", MBE Taiwan 2008, Hsinchu, Taiwan, R.O.C., 2008.
- 364.S. Y. Wang, S. H. Chen, K. H. Teng, and J.-I. Chyi, "Extraction of Base and Collector-Transit time in InP/In_{0.37}Ga_{0.63}As_{0.89}Sb_{0.11}/InGaAs HBT", MBE Taiwan 2008, Hsinchu, Taiwan, R.O.C., 2008.
- 365.Y. L. Lan, H. C. Lin, Y. C. Chen, G. Y. Lee, Fan Ren, Stephen J. Pearton, C. H. Nien, and J.-I. Chyi, "Smooth Surface Morphology and Low Contact Resistance Ohmic Contacts to AlGaN/GaN Heterostructures", Intl. Electron. Devices and Materials Symposium, Taichung, Taiwan, R.O.C., 2008.
- 366.P. Y. Chiang, S. Y. Wang, C. M. Chang, S. H. Chen, and J.-I. Chyi, "High Performance InAlAs/InGaAsSb/InGaAs Double Heterojunction Bipolar Transistors", Intl. Electron. Devices and Materials Symposium, Taichung, Taiwan, R.O.C., 2008. (Best paper award)
- 367.C. M. Chang, S. Y. Wang, P. Y. Chiang, S. H. Chen, and J.-I. Chyi, "High Current Gain and Low Base Sheet Resistance InAlAs/InGaAsSb/InGaAs Double Heterojunction Bipolar Transistors", Intl. Electron. Devices and Materials Symposium, Taichung, Taiwan, R.O.C., 2008.
- 368.H.-Y. Chen, S.-H. Chen, K.-H. Teng, S.-Y. Wang, and J.-I. Chyi, "Pseudomorphic InGaAsSb Base DHBT Grown by Solid-source Molecular Beam Epitaxy," Intl. Electron Devices and Materials Symposium, Taichung, Taiwan, R.O.C., 2008.
- 369.S. P. Lee, Y. C. Tseng, T. Y. Chi, F. S. Yang, C. J. Wang, P. C. Chiu, W. Y. Chen, T. M. Hsu, and J.-I. Chyi, "Single-Mode Quasi-L2 Photonic Crystal Micro-Cavity for 1.3 μm InAs Quantum Dots Light Sources," Intl. Conference on Optics and Photonics in Taiwan, Taipei, Taiwan, R.O.C., 2008.
- 370.H.-C. Lin, G.-Y. Lee, H.-H. Liu, N.-W. Hsu, C.-C. Wu, and J.-I. Chyi, "Polarization-Enhanced Mg Doping in InGaN/GaN Superlattices for Green Light-Emitting Diodes," Optics and Photonics, Taipei, Taiwan, R.O.C., 2008.
- 371.J.-I. Chyi, C. J. Wang, Y. C. Tseng, P. C. Chiu, W. Y. Chen, M. H. Shih, T. M. Hsu, and W. H. Chang, "InAs Quantum Dot Photonic Crystal Cavity Light Emitters", Annual Meeting of the Physics Society of Republic of China, Changhua, Taiwan, R.O.C., 2009. (Invited)
- 372.S.-Y. Wang, P.-Y. Chiang, C.-M. Chang, S.-H. Chen, and J.-I. Chyi, "Emitter Size in InAlAs/InGaAsSb/InGaAs Double Hetero-Junction Bipolar Transistor," 6th MBE-Taiwan, Hualien, Taiwan, R.O.C., 2009.
- 373.S.-H. Chen, C.-M Chang, P.-Y. Chiang, S.-Y. Wang, S.-Y. Lin, and J.-I. Chyi "InAlAs/InGaAsSb/InGaAs DHBTs with High Current Gain and Low Base Sheet Resistance," 6th MBE-Taiwan, Hualien, Taiwan, R.O.C., 2009.
- 374.P.-C. Chiu, T.-W. Ma, H.-K. Lin, and J.-I. Chyi, "Improvement of Electron Mobility of InSb Grown on Si by Post Thermal Annealing," 6th MBE-Taiwan, Hualien, Taiwan, R.O.C., 2009.
- 375.C.-Y. Chen and J.-I. Chyi, "Investigation of Optical Properties of ZnSeO Grown on GaAs," 6th MBE-Taiwan, Hualien, Taiwan, R.O.C., 2009.
- 376.C.-Y. Chen, J.-I. Chyi, C.-K. Chao, and C.-H. Wu, "Growth and Optical Characterization of ZnSeO Grown on GaAs", Intl. Electron Devices and Materials Symposia, Taoyuan, Taiwan, R.O.C., 2009.
- 377.G.-Y. Lee, H.-H. Liu, Y.-L. Lan, H.-C. Lin, and J.-I. Chyi, "High Performance AlGaN/GaN Schottky Barrier Diodes Grown on AlN Buffer Layer", Intl. Electron Devices and Materials Symposia, Taoyuan, Taiwan, R.O.C., 2009.
- 378.H.-H. Liu, P.-R. Chen, H.-C. Lin, and J.-I. Chyi, "Reduction of the Efficiency Droop of InGaN Quantum Well Light-Emitting Diodes by Using an In_{0.04}Ga_{0.96}N Prelayer and Trimethylindium Treatment" Optics and Photonics Taiwan, Taipei, Taiwan, R.O.C., 2009.
- 379.H.-H. Liu, C.-C.-Wu, H.-Y. Lin, and J.-I. Chyi, "Characterization of Semipolar (1-101)InGaN/GaN Multiple Quantum Wells Grown on 7°-off (001)Si Substrates" Optics and Photonics Taiwan, Taipei, Taiwan, R.O.C., 2009.
- 380.P.-R. Chen, H.-H. Liu, G.-Y. Lee, H.-C. Lin, and J.-I. Chyi, "Efficiency Enhancement of InGaN LEDs with an n-type AlGaN/GaN/InGaN Current Spreading Layer," Optics and Photonics Taiwan, Taipei, Taiwan, R.O.C., 2009.
- 381.C.-Y. Chen, J.-I. Chyi, W.-Y. Chen, and T.-M. Hsu, "Carrier Dynamics in ZnSeO Grown on GaAs by Molecular Beam Epitaxy," Molecular Beam Epitaxy Taiwan, Taipei, Taiwan, R.O.C., 2010.

- 382.P.-C. Chiu, H.-C. Hao, H.-K. Lin, and J.-I. Chyi, "High Hole Mobility Strained InGaSb Quantum Wells Grown on GaAs by Molecular Beam Epitaxy," Molecular Beam Epitaxy Taiwan, Taipei, Taiwan, R.O.C., 2010.
- 383.C.-M. Chang, S.-H. Chen, W-T. Hsu, W.-H. Chang, and J.-I. Chyi, "Characterization of InAlAs/In_{0.25}Ga_{0.75}As_{0.72}Sb_{0.28}/InGaAs Double Heterojunction Bipolar Transistors," Molecular Beam Epitaxy Taiwan, Taipei, Taiwan, R.O.C., 2010.
- 384.H.-Y. Lin, H.-H. Liu, C.-Z. Liao, and J.-I. Chyi, "Growth of Crack-Free Semi-Polar (1-101) GaN on a 7°-off (001) Si Substrate by Metal-Organic Chemical Vapor Deposition," Optics and Photonics Taiwan, Tainan, Taiwan, R.O.C., 2010. 12/3-4
- 385.L.-H. Siao, C.-Y. Chen, J.-I. Chyi, C.-K. Chao, and C.-H. Wu, "Properties of In-Doped ZnO Grown by Plasma-Assisted Molecular Beam Epitaxy on GaN (0001) Templates," Optics and Photonics Taiwan, Tainan, Taiwan, R.O.C., 2010.
- 386.C.-M. Chang, S.-H. Chen, S.-Y. Wang, and J.-I. Chyi, "Characterization of InAlAs/In_{0.25}Ga_{0.75}As_{0.72}Sb_{0.28}/InGaAs Double Heterojunction Bipolar Transistors," Intl. Electron Devices and Materials Symp., Jhongli, Taiwan, R.O.C., 2010.
- 387.C.-A. Chang, S.-Y. Wang, C.-M. Chang, S.-H. Chen, and J.-I. Chyi, "Emitter-Size Effects in InP/InGaAsSb/InGaAs Double Heterojunction Bipolar Transistors," Intl. Electron Devices and Materials Symp., Jhongli, Taiwan, R.O.C., 2010.
- 388.K. Uma, C.-Y. Chen, C.-K. Chao, C.-H. Wu, and J.-I. Chyi, "Observation of New Critical Points in ZnSe_{1-x}O_x Layers Using Spectroscopic Ellipsometry", Intl. Electron Devices and Materials Symp., Jhongli, Taiwan, R.O.C., 2010.
- 389.H.-C. Ho, H.-K. Lin, and J.-I. Chyi, "Study of AlGaSb Buffer Layers for Developing InAs/AlSb QWFET Materials", Intl. Electron Devices and Materials Symp., Jhongli, Taiwan, R.O.C., 2010.
- 390.W.-T. Hsu, Y.-A. Liao, S.-K. Lu, S.-J. Cheng, P.-C. Chiu, J.-I. Chyi, and W.-H. Chang, "Tailoring of the Wave Function Overlaps and the Carrier Lifetimes in InAs/GaAs_{1-x}Sb_x Type-II Quantum Dots", Annual Meeting of Taiwan Physical Society, Tainan, Taiwan, R.O.C., 2010.
- 391.J.-H. Lin, W.-T. Hsu, S.-H. Chen, C.-M. Chang, J.-I. Chyi, and W.-H. Chang, "Recombination mechanism of the heavily Be-doped InGaAsSb material", Annual Meeting of Taiwan Physical Society, Tainan, Taiwan, R.O.C., 2010.
- 392.J.-I. Chyi, H.-K. Lin, H.-C. Hao, P.-C. Chiu, and W.-J. Hsueh, "Molecular Beam Epitaxial Growth and Characterization of Sb-Based N- and P-Channel HFETs on GaAs and Si(Ge) Substrates", 5th International Workshop on High k Dielectrics on High Carrier Mobility Semiconductors, Hsinchu, Taiwan, R.O.C., 2011. (Invited)
- 393.J.-I. Chyi, H.-H. Liu, and H.-Y. Lin, "Growth of Semi-Polar GaN and InGaN on (100) Si Substrates by Metal-Organic Chemical Vapor Deposition," The IUMRS International Conference in Asia (IUMRS-ICA), Taipei, Taiwan, R.O.C., 2011. (Invited)
- 394.J.-I. Chyi, "InGaAsSb/InP Heterojunction Bipolar Transistors toward THz Operation," Intl. Electron Devices and Materials Symp., Taipei, Taiwan, R.O.C., 2011. (Invited)
- 395.C.-J. Wang, W.-Y. Chen, Y. C. Tseng, M. H. Shih, T. M. Hsu, and J.-I. Chyi, "Single Mode Operation 1.3 μm InAs Quantum Dot Lasers Based on Small Mode Volume qL2 Photonic Crystal Nano-Cavity," International NanoElectronics Conference, Taoyuan, Taiwan, R.O.C., 2011.
- 396.C.-Y. Chien, P.-C. Chiu, J.-I. Chyi, and P.-W. Li "Influences of Gate Metal and Thermal Treatment on Electrical and Interfacial Properties of Ti/Pt/HfO₂/InAs pMOS Capacitors," International Electron Devices and Materials Symposium, Taipei, Taiwan, R.O.C., 2011.
- 397.C.-Y. Yang, C.-Y. Chen, J.-I. Chyi, M.-D. Yang, and C.-H. Wu, "Characteristics of Ti/Al/Ni/Au Ohmic Contacts on Ga-doped ZnO Films," International Electron Devices and Materials Symposium, Taipei, Taiwan, R.O.C., 2011.
- 398.L.-C. Cheng, H.-H. Liu, M.-J. Lee, and J.-I. Chyi, "Effect of Barriers Doping on Nitrogen Polar InGaN Single Quantum Well Light Emitter Diodes," International Photonics Conference, Tainan, Taiwan, R.O.C., 2011.
- 399.W.-S. Lin, G.-Y. Lee, H.-H. Yen, W.-Y. Yeh, and J.-I. Chyi, "InGaN-Based Alternating Current Light-Emitting Diodes with Integrated AlGaN/GaN Schottky Barrier Diodes," International Photonic conference, Tainan, Taiwan, R.O.C. 2011.
- 400.P.-C. Chiu, H.-C. Ho, S.-W. Lee, Y.-M. Hsin, and J.-I. Chyi, "Improving Electron Mobility of InAs Quantum Well High Electron Mobility Transistors Grown on Si Substrates by a GaAs/GaAsSb Step-Graded Buffer Layer," International Electron Devices and Materials Symposium, Kaohsiung, Taiwan, R.O.C. 2012.
- 401.C.-M. Chang, S.-Y. Wang, W.-T. Hsu, W.-H. Chang, and J.-I. Chyi, "Minority Carrier Recombination Mechanisms of Heavily Be-doped InGaAsSb," International Electron Device and Materials Symposium, Kaohsiung, Taiwan, R.O.C. 2012.