

## A. Referred Paper

1. J. C. Chen and G. P. Neitzel, 1982, Strong stability of impulsively initiated Couette flow for both axisymmetric and non-axisymmetric disturbances, *Journal of Applied Mechanics*, Vol. 104, pp. 1-6, Also in the 103<sup>rd</sup> ASME winter annual meeting, Phoenix, AZ.
2. J. C. Chen, G. P. Neitzel and D. F. Jankowski, 1985, The influence of initial condition on the linear stability of time-dependent circular Couette flow, *Phys. Fluids*, Vol. 28, pp. 749-751.
3. J. C. Chen, G. P. Neitzel and D. F. Jankowski, 1987, Numerical experiments on the stability of unsteady circular Couette flow, *Phys. Fluids*, Vol. 30, pp. 1250-1258.
4. J. C. Chen and W. C. Tsao, 1987, Thermocapillary convection in a rectangular cavity during laser melting: asymptotic solution, *Journal of the Chinese Society of Mechanical Engineers*, Vol. 8, pp. 191-301.
5. Y. T. Lee and J. C. Chen, 1990, Numerical investigation of the thermocapillary flow around a deformable bubble on the hot wall, *Journal of the Chinese Society of Mechanical Engineers*, Vol. 11, pp. 233-243. Also in the sixth national conference of CSME.
6. J. C. Chen, J. C. Sheu and S. S. Jwu, 1990, Numerical computation of thermocapillary convection in a rectangular cavity, *Numerical Heat Transfer A*, Vol. 17, pp. 287-308. Also in the seven international conference on mathematical and computer modelling, Chicago, IL, USA.
7. J. C. Chen, J. C. Sheu and Y. T. Lee, 1990, Maximum stable size of nonisothermal liquid bridges, *Phys. Fluids A*, Vol. 2, pp. 1118-1125.
8. J. C. Chen, and J. Y. Kuo, 1990, The linear stability of steady circular Couette flow with a small radial temperature gradient, *Phys. Fluids A*, Vol. 2, pp. 1585-1591.
9. J. C. Chen and Y. C. Huang, 1991, Thermocapillary flows of surface melting due to a moving heat flux, *Int. J. Heat Mass Transfer*, Vol. 34, pp. 663-671.
10. J. C. Chen, W. C. Chen, and F. S. Hwu, 1991, Numerical computation of unsteady thermocapillary convection in a rectangular cavity with surface deformation, *Heat Transfer in Metals and Containerless Processing and Manufacturing*, HTD 162, pp. 89-95.
11. J. C. Chen and Y. T. Lee, 1992, The effect of surface deformation on thermocapillary bubble migration, *AIAA Journal*, Vol. 30, pp. 993-998.
12. J. C. Chen and S. F. Kuan, 1992, Thermocapillary convection in a rectangular cavity under the influence of surface contamination, *Int. J. Heat mass Transfer*, Vol. 35, pp. 2905-2910.
13. J. C. Chen and C. K. Hsieh, 1993, Linear stability of natural convection in a tall vertical slot with a moving sidewall, *Int. J. Heat Mass Transfer*, Vol. 36, pp. 1471-1476.
14. J.C. Chen and W. U. Ueng, 1993, Effect of energy conservation on a heat transfer study of float-zone growth, *Journal of the Chinese Society of Mechanical Engineers*, Vol. 14, pp. 522-537.
15. J. C. Chen and F. S. Hwu, 1993, Oscillatory thermocapillary flow in a rectangular cavity, *Int. J. Heat Mass Transfer*, Vol. 36, pp. 3743-3749.
16. G. H. Chou, L. Y. Liao, and J. C. Chen, 1994, Studies on the heat transfer characteristics inside a

- vertical tube during reflux condensation process, Nuclear Science Journal, Vol. 31, pp.366-379.
17. J. C. Chen, C. F. Chu and W. F. Ueng, 1994, Thermocapillary convection and melt-solid interface in the floating zone, Int. J. Heat and Mass Transfer, Vol. 37, pp. 1732-1748.
  18. J. C. Chen and H Hu, 1995, Measurement of the float-zone interface shape for lithium niobate, Journal of Crystal Growth, Vol. 149, pp. 87-95.
  19. J. C. Chen and C. F. Chu, 1995, Numerical Computation of fluid flow of floating-zone crystal growth of Molybdenum, Int. J. Heat and Mass Transfer, Vol. 38, pp. 481-494.
  20. J. C. Chen and S. S. Sheu, 1995, Linear stability analysis of thermocapillary convection in liquid bridges using a mixed finite difference-spectral method, Int. J. Num. Meth. Heat Fluid Flow, Vol. 5, pp. 481-494. Also in the Eight International Conference on Numerical Methods in Thermal Problems, Swansea, UK.
  21. J. C. Chen and G. H. Chin, 1995, Linear stability analysis of thermocapillary convection in the floating zone, Journal of Crystal Growth, Vol. 154, pp. 98-107.
  22. J. C. Chen, G. H. Chou and C. K. Hsieh, 1996, The influence of inner-wall motion on the linear stability of natural convection in a tall vertical annulus, Int. J. Heat Mass Transfer, Vol. 39, pp. 193-201.
  23. J. C. Chen and H Hu, 1996, Measurement of the surface temperature in the float zone of  $\text{LiNbO}_3$ , Journal of Crystal Growth, Vol. 158, pp. 289-295.
  24. G. H. Chou and J. C. Chen, 1996, Linear stability of condense film flow down a vertical plane with nonuniform surface tension, Journal of the Chinese Society of Mechanical Engineers, Vol. 17, pp. 197-203.
  25. J. C. Chen, Y. C. Lee, and C. Hu, 1996, A simple method of examining the propagation of defects in the floating-zone solidification process of lithium niobate, Journal of Crystal Growth, Vol. 166, pp. 151-155. Also in the International Conference on Crystal Growth XI, Hague, Netherlands.
  26. J. C. Chen and H. K. Wu, 1996, Numerical Computation of heat flow, fluid flow and interface shapes in the float zone of lithium niobate during a melting process, Int. J. Heat Mass Transfer, Vol. 39, pp. 3707-3716.
  27. C. Hu and J. C. Chen, 1996, Experimental observation of interface shapes in the float zone of lithium niobate during a  $\text{CO}_2$  laser melting, Int. J. Heat Mass Transfer, Vol. 37, pp. 3347-3355. Also in the Twelfth National Conference of CSME.
  28. G. H. Chou and J. C. Chen, 1997, Linear stability study of waviness effect on film condensation with nonuniform surface tension, Int. J. Heat Mass Transfer, Vol. 40, pp. 2477-2482.
  29. J. C. Chen, Y. C. Lee, and C. Hu, 1997, Observation of the growth mechanisms of lithium niobate single crystal during a LHPG process, Journal of Crystal Growth, Vol. 174, pp. 313-319. Also in the Tenth American Conference on Crystal Growth, Vail, Colorado, USA.
  30. G. H. Chou and J. C. Chen, 1997, Heat transfer characteristics of reflux condensation phenomena in single vertical tube, Nuclear Science and Engineering, Vol. 127, pp.220-229.

31. J. C. Chen, C. Hu, and Y. C. Lee, 1998, Thermal radiative emission of LiF and LiNbO<sub>3</sub> in the near-infrared spectra, Japanese Journal of Applied Physics, Vol. 37, pp. 224-229.
32. J. C. Chen, C. Hu, and Y. C. Lee, 1998, Temperature dependence of the emittance of LiF and LiNbO<sub>3</sub> in the near-infrared spectra, Japanese Journal of Applied Physics, Vol. 37, pp. 4070-4075.
33. 陳志臣,李有璋,黃禎宏,賴彥志, 1998,淺談晶纖生長及應用, 材料會訊, Vol. 5, No. 3, pp. 46. (Invited paper)
34. Y. C. Lee and J. C. Chen, 1999, The effect of temperature distribution on the barium titanate crystal growth in an LHPG system, Optical Materials, Vol. 12, pp. 83-91.
35. Y. J. Lai and J. C. Chen, 1999, Investigations of ferroelectric domain structures in the MgO:LiNbO<sub>3</sub> fibers by LHPG, Journal of Crystal Growth, Vol. 198/199, pp. 531-535. Also in the International Conference on Crystal Growth XI, Jerusalem, Israel.
36. J. C. Chen, L. T. Liu and C. C. Young, 1999, Study of the growth mechanism of BSO during a LHPG method, Journal of Crystal Growth, Vol. 198/199, pp. 476-481. Also in the International Conference on Crystal Growth XI, Jerusalem, Israel.
37. G. H. Chou and J. C. Chen, 1999, A general modeling for heat transfer during reflux condensation inside vertical tubes surrounded by isothermal fluid, International Journal of Heat and Mass Transfer, Vol. 42, pp. 2299-2311.
38. J. C. Chen and Y. C. Lee, 2000, The influence of temperature distribution upon the structure of LiNbO<sub>3</sub> crystal rods grown using the LHPG method, Journal of Crystal Growth, Vol. 208, pp 508-512.
39. C. H. Huang, J. C. Chen, and C. Hu, 2000, YVO<sub>4</sub> single crystal fiber growth by the LHPG method, Journal of Crystal Growth, Vol. 211, pp 237-241.
40. Y. J. Lai and J. C. Chen, 2000, The influence of heavy iron-doping on LiNbO<sub>3</sub> fibers and their growth, Journal of Crystal Growth, Vol. 212, pp 211-216.
41. J. C. Chen, Y. C. Lee, and S. P. Lin, 2000, A new technique to eliminate the 90<sup>0</sup> domains in BaTiO<sub>3</sub> crystal fibers, Japanese Journal of Applied Physics, Vol. 39, pp 1812-1814.
42. C. W. Lu and J. C. Chen, 2001, Numerical computation of sapphire crystal growth using heat exchanger method, Journal of Crystal Growth, Vol. 225, pp 274-281. Also in Twelfth American Conference on Crystal Growth, Vail, Colorado, USA.
43. C. C. Hu, J. C. Chen and C. H. Huang, 2001, Effect of pulling rates on the quality of YIG single crystal fibers, Journal of Crystal Growth, Vol. 225, pp 257-263. Also in Twelfth American Conference on Crystal Growth, Vail, Colorado, USA.
44. C. H. Huang and J. C. Chen, 2001, Nd: YVO<sub>4</sub> single crystal fiber grown by LHPG method, Journal of Crystal Growth, Vol. 229, pp 184-187. Also in 1<sup>st</sup> Asian Conference on Crystal Growth and Crystal Technology, Sendai, Japan.
45. Y. J. Lai and J. C. Chen, 2001, Effects of the laser heating and air bubbles on the morphologies of c-axis LiNbO<sub>3</sub> fibers, Journal of Crystal Growth, Vol. 231, pp 222-229.

46. J. C. Chen and C. Y. Chen, 2002, Growth of  $Ba_{1-x}Ca_xTiO_3$  single-crystal fibers by a laser-heated pedestal method. *Journal of Crystal Growth*, Vol. 236, pp. 640-646.
47. C. W. Lu, J. C. Chen, L. J. Hu, 2002, A numerical investigation of the thermal distribution effects in a heat-exchanger-method crystal growth system, *Modelling and Simulation in Materials Science*, Vol. 10, pp 147-162.
48. J. C. Chen and C. C. Hu, 2003, Quantitative analysis of YIG,  $YFeO_3$  and  $Fe_3O_4$  in LHPG-grown YIG rods. *Journal of Crystal Growth*, Vol. 249, pp. 245-250.
49. J.-C. Chen, G.-C. Huang, C. Hu, and J.-P. Weng, 2003, Synthesis of negative-thermal-expansion  $ZrW_2O_8$  substrates. *Scripta Materialia*, Vol. 49, pp 261-266.
50. C.-C. Mao, J.-C. Chen, H. Peng, and M.-L. Chang, 2003, Steady-state rheological behavior of semi-solid AZ91D magnesium alloy, *Journal of the Chinese Society of Mechanical Engineers*, Vol. 24, pp. 385-390. (Invited paper)
51. J.-C. Chen and C.-W. Lu, 2004, Influence of the crucible geometry on the shape of the melt-crystal interface during growth of sapphire crystal using a heat-exchanger-method, *Journal of Crystal Growth*, Vol. 266, pp. 239-245.
52. Y.-C. Huang, M.-S., Lin, C.-M. Liu and J.-C. Chen, 2004, Motion Stage Design with Scanning-by-Probe AFM for Imaging Nanocrystals on Sapphire Surface, *Journal of the Chinese Society of Mechanical Engineers*, Vol.125, No.3 ,pp.257-265.
53. C.-Y. Chen, J.-C. Chen, and Y.-J. Lai, 2005, Investigations of the growth mechanism of stoichiometric  $LiNbO_3$  fibers grown by the laser-heated pedestal growth method, *Journal of Crystal Growth*, Vol. 275, pp. e763-e768.
54. G-J Sheu, J-C Chen, J-Y Shiu, and C Hu, 2005, Synthesis of negative-thermal-expansion  $TiO_2$ -doped LAS Substrates, *Scripta Materialia*, Vol. 53, pp. 577-580.
55. T.-C. Mao, J.-C. Chen, and C.-C. Hu, 2005, Characterization of the growth mechanism of YIG Crystal fibers using the laser heated pedestal growth method, *Journal of Crystal Growth*, Vol. 282, pp. 143-151.
56. 許國君, 陳志臣, 胡凡勳, 鄭建宏, 2005, 新世代照明技術:LED 元件封裝之熱管理分析, *光學工程*, Vol. 90, pp. 69-75. (Invited paper)
57. J.-C. Chen, F.-S. Hwu, and B. J. Chen, 2005, Numerical simulation of thermal and microdefect distributions affected by different types of heat shields during the Chzochralski silicon crystal growth, *Journal of the Chinese Society of Mechanical Engineers*, Vol. 126, pp. 87-97. (Invited paper)
58. C.-M. Liu, J.-C. Chen, and C.-J. Chen, 2005, The growth of an epitaxial Mg-Al spinel layer on sapphire by solid-state reactions, *Journal of Crystal Growth*, Vol 285, pp. 275-283.
59. C.-M. Liu, C.-H. Chiang, J.-C. Chen, 2006, Mg doped sapphire crystal fibers grown by the LHPG method, *Japanese Journal of Applied Physics*, Vol. 45, pp. 194-199.
60. C.-M. Liu, J.-C. Chen, and L. J. Hu, 2006, The effect of annealing, precipitation-strengthening, and compressive coating processes on sapphire strength, *Materials Science and Engineering A*,

Vol. 420, pp. 212-219.

61. T.-C. Mao and J.-C. Chen, 2006, Influence of the addition of CeO<sub>2</sub> on the microstructure and the magnetic properties of yttrium iron garnet ceramic, *Journal of magnetism and magnetic materials*, Vol. 302, pp. 74-81.
62. C.-M. Liu and J.-C. Chen, 2006, Growth of Mg-Al spinel micro crystals on sapphire surface using a solution-precipitation method, *Applied Physics Letters*, Vol. **89**, 011912.
63. C.-M. Liu, J.-C. Chen, and C.-J. Chen, 2006, The morphology of an epitaxial Mg-Al spinel layer on a sapphire surface, *Journal of Crystal Growth*, Vol. 292, pp. 302-305.
64. C.-W. Lu and J.-C. Chen, 2006, Influence of thermal conductivity on interface shape during growth of sapphire crystal using a heat-exchanger-method, *Journal of Rare Earths*, Vol. 24, pp. 222-227.
65. J.-C. Chen, C.-W. Kuo, and G. P. Neitzel, 2006, Numerical Simulation of Thermocapillary Nonwetting, *International Journal of Heat and Mass transfer*, Vol.49, pp. 4567-4576.
66. C.-H. Chiang and J.-C. Chen, 2006, Growth and Properties of Ru Doped Lithium Niobate Crystal, *Journal of Crystal Growth*, Vol. 294, pp. 323-329.
67. H.-I Chen and J.-C. Chen, 2006, Thixotropic behavior of semi-solid magnesium alloy, *Solid State Phenomena*, Vol. 116/117, pp. 648-651.
68. T.-C. Mao, J.-C. Chen, and C.-C. Hu, 2006, Effect of the pulling rate on the quality of cerium-substituted YIG single crystal fibers by LHPG, *Journal of Crystal Growth*, Vol. 296, pp. 110-116.
69. C.-W. Chien, J.-C. Chen and J.-Y. Lee, 2006, Applying an interferometric exposure model to analyze the influences of process parameters on the line width, *Applied Optics*, Vol. 45, pp. 8278-8287.
70. C.-W. Kuo, J.-C. Chen, and G. P. Neitzel, 2007, Numerical simulation of isothermal nonwetting, *International Journal for Numerical Methods in Fluids*, Vol. 53, pp. 257-275.
71. C.-W. Chien, Y.-C. Lee, P.-S. Lee, J.-Y. Chang and J.-C. Chen, 2007, The analysis of 2D photonic band gap structure fabricated by an interferometric lithographic system, *Applied Optics*, Vol. 46, pp. 3196-3204.
72. C.-H. Chiang, J.-C. Chen, J.-Y. Chang and C.-W. Lu, 2007, Effect of post treatment on the photorefractive properties of Ru-doped lithium niobate, *Crystal Research and Technology*, Vol. 42, pp. 1302-1307.
73. C.-Y. Chen, J.-C. Chen, and C.-T. Chia, 2007, Growth and optical properties of different compositions of LiNbO<sub>3</sub> single crystal fibers, *Optical Materials*, Vol. 30, pp. 393-398.
74. 林明德、葉文勇、朱慕道、陳志臣, 2007, 照明光源技術分析與熱電插拔 AC LED 之特性探討, *工業材料*, Vol. 253, pp. 101-111.
75. C.-M. Liu, J.-C. Chen, Y.-C. Huang and H.-L. Hsieh, 2008, The morphology of etch pits on a sapphire surface, *Journal of Physics and Chemistry of Solids*, Vol. 69, pp. 572-575
76. C.-L. Chung, J.-C. Chen and C.-J. Tseng, 2008, Electrical and optical properties of

TiO<sub>2</sub>-doped ZnO films prepared by radio frequency magnetron sputtering, *Journal of Physics and Chemistry of Solids*, Vol. 69, pp. 535-539.

77. J.-L. Chung, J.-C. Chen and C.-J. Tseng, 2008, The influence of titanium on the properties of zinc oxide films deposited by radio frequency magnetron sputtering, *Applied Surface Science*, Vol. 254, pp. 2615-2620.
78. H.-I. Chen, J.-C. Chen and J.-J. Liao, 2008, The influence of shearing conditions on the rheology of semi-solid magnesium alloy, *Materials Science & Engineering A*, Vol. 487, pp. 114-119.
79. C.-H. Chiang, J.-C. Chen, T.-M. Huang and C. Hu, 2008, Properties of Ru-doped near-stoichiometric lithium niobate crystals produced by vapor transport equilibration, *Journal of Crystal Growth*, Vol. 310, pp. 2678-2682.
80. G.-J. Sheu, F.-S. Hwu, J.-C. Chen, J.-K. Sheu, and W.-C. Lai, 2008, The effect of the electrode pattern on current spreading and driving voltage in a GaN/Sapphire LED chip, *Journal of the Electrochemical Society*, Vol. 155, pp. H836-H840.
81. J.-L. Chung, J.-C. Chen and C.-J. Tseng, 2008, Preparation of TiO<sub>2</sub>-doped ZnO films by radio frequency magnetron sputtering in ambient hydrogen-argon gas, *Applied Surface Science*, Vol. 255, pp. 2494-2599.
82. C.-H. Chiang, J.-C. Chen, Y.-C. Lee, C.-H. Lin, and J.-Y. Chang, 2009, Photorefractive properties of Ru-doped lithium niobate crystal. *Optical Materials*, Vol. 31, pp. 812-816.
83. F.-S. Hwu, G.-J. Sheu, M.-T. Lin, and J.-C. Chen, 2009, Method for determining the junction temperature of alternating current Light-Emitting Diodes. *IET Science, Measurement & Technology*, Vol. 3, pp. 159-164.
84. J.-C. Chen, G.-J. Sheu, F.-S. Hwu, J.-K. Sheu, T.-X. Lee, and C.-C. Sun, 2009, Electrical-optical analysis of a GaN/sapphire LED chip by considering the resistivity of the current spreading layer, *Optical Review*, Vol. 16, pp. 213-215.
85. F.-S. Hwu, G.-J. Sheu, J.-C. Chen, H.-I. Chen, and J.-K. Sheu, 2010, A numerical study of thermal and electrical effects in a vertical LED chip, *Journal of the Electrochemical Society*, Vol. 157, H31-37.
86. C.-W. Lu and J.-C. Chen, 2010, Numerical simulation of thermal and mass transport during Czochralski crystal growth of sapphire, *Crystal Research and Technology*, Vol. 45, pp. 371-379. (DOI 10.1002/crat.200900528)
87. Y.-Y. Teng, J.-C. Chen, C.-W. Lu and C.-Y. Chen, 2010, Numerical simulation of temperature, velocity and carbon distributions in a growing multicrystalline silicon ingot process, *Journal of Crystal Growth*, Vol. 312, pp.1282-1290.
88. C.-W. Lu, J.-C. Chen, C.-H. Chen, C.-H. Chen, W.-C. Hsu and C.-M. Liu, 2010, Effect of RF coil position on transport processes during the sapphire CZ crystal growth, *Journal of Crystal Growth*, Vol. 312, pp. 1074-1079.
89. C.-L. Tseng, C.-J. Tseng, J.-C. Chen, 2010, Thermodynamic analysis of a photoelectrochemical hydrogen production system, *International Journal of Hydrogen Energy*, Vol. 35, pp. 2781-2785.

(doi:10.1016/j.ijhydene.2009.05.017)

90. H.-B. Nguyen and J.-C. Chen, 2010, A numerical study of thermocapillary migration of a small liquid droplet on a horizontal solid surface, *Physics of Fluids*, Vol. 22, 062102. (doi:10.1016/1.3432848)
91. M.-T. Lin, S.-P. Ying, M.-Y. Lin, K.-Y. Tai, S.-C. Tai, C.-H. Liu, J.-C. Chen and C.-C. Sun, 2010, Ring Remote Phosphor Structure for Phosphor-Converted White LEDs, *IEEE-Photonics Technology Letters*, Vol. 22, pp. 574-576.( doi:10.1109/LPT.2010.2043088)
92. S.-H. Tu, J.-C. Chen, F.-S. Hwu, G.-J. Sheu, F.-L. Lin, S.-Y. Kuo, J.-Y. Chang and C.-C. Lee, 2010, Characteristics of Current Distribution by Designed Electrode Patterns for High Power Thin GaN LED, *Solid State Electronics*, Vol. 54, pp. 1438-1443.
93. H.-L. Hsieh, J.-Y. Lee, W.-T. Wu, J.-C. Chen, R. Deturche and G. Lerondel, 2010, Quasi-common-optical path heterodyne grating interferometer for displacement measurement, *Measurement Science and Technology*, Vol. 21, 115304. (doi: 10.1088/0957-0233/21/11/115304)
94. M.-T. Lin, S.-P. Ying, M.-Y. Lin, K.-Y. Tai, S.-C. Tai, C.-H. Liu, J.-C. Chen and C.-C. Sun, 2010, Design of the ring remote phosphor structure for phosphor-converted white-light-emitting diode, *Japanese Journal of Applied Physics*, Vol. 49, 07210. (10.1143/JJAP.49.07210)
95. H.-B. Nguyen and J.-C. Chen, 2010, Numerical study of a droplet migration induced by combined thermocapillary-buoyancy convection, *Physics of Fluids*, Vol. 22, 122101. (doi:10.1063/1.3524822)
96. F.-S. Hu, C.-H. Yang, and J.-C. Chen, 2011, Method for measuring the mean junction temperature of alternating current light-emitting diodes, *Measurement Science and Technology*, Vol. 22, 045701(<http://dx.doi.org/10.1088/0957-0233/22/4/045701>).
97. C.-H. Chen, J.-C. Chen, C-W Lu, and C.-M. Liu, 2011, Numerical simulation of heat and fluid Flows for a sapphire single crystal growth by the Kyropoulos method, *Journal of Crystal Growth*, Vol. 318, pp. 162-167.(doi:10.1016/j.jcryspro.2010.10.121)
98. Y.-Y. Teng, J.-C. Chen, C.-W. Lu, H.-I Chen, C. Hsu and C.-Y. Chen, 2011, Effects of the furnace pressure on the oxygen and silicon oxide distributions during the growth of multicrystalline silicon ingots by the directional solidification process, *Journal of Crystal Growth*, Vol. 318, pp. 224-229.(doi:10.1016/j.jcryspro.2010.11.110 )
99. Y.-Y. Teng, J.-C. Chen, W.-T Wun, C.-W. Lu, H.-I Chen, K. Hsieh, C.-Y. Chen, and W.-C. Lan, 2011, Numerical simulation of oxygen transport during the CZ silicon crystal growth process, *Journal of Crystal Growth*, Vol. 318, pp. 318-323(doi:10.1016/j.jcryspro.2010.11.145).
100. J-Y Lee, H.-L. Hsieh, G. Lerondel, R. Deturche, M.-P. Lu, and J.-C. Chen, 2011, A Heterodyne Grating Interferometer Based on a Quasi Common Optical Path Configuration for Two-DOF Straightness Measurement, *Applied Optics*, Vol. 50, pp. 1271-1279.
101. H.-L. Hsieh, J.-C. Chen, G. Lerondel, and J-Y Lee, 2011, Two-dimensional displacement measurement by quasi-common-optical-path heterodyne grating interferometer, *Optics Express*,

## B. Conference paper

1. J. C. Chen, G. P. Neitzel, and D. F. Jankowski, 1985, The nonlinear stability of slowly-varying, unsteady circular Couette flow, 38th meeting of division of fluid dynamics of the American Physical Society, Tucson, AZ.
2. J. C. Chen and G. P. Neitzel, 1985, Numerical computation of unsteady circular Couette flow, 1st annual Arizona fluid mechanics meeting, Tucson, AZ
3. J. C. Chen, G. P. Neitzel, and D. F. Jankowski, 1987, Nonlinear stability of time-dependent circular Couette flow, International Conference on Fluid Mechanics, Beijing, pp. 231-236.
4. 陳志臣, 竺尚嵩, 1987, 雷射熔解所引起熱毛細對流之現象, 中國機械工程學會第四屆學術研討會, 新竹市, pp. 561-572.
5. 陳志臣, 溫宏仕, 1987, 雷射熔解金屬表面之熱傳分析, 中國銲接學會第一屆學術研討會, 台北市, pp. 57-66.
6. 陳志臣, 許志成, 竺尚嵩, 1988, 長穴熱毛細對流之數值解, 中華民國太陽能學會七十七年度學術研討會, 高雄市, pp. 101-109.
7. 曹維城, 陳志臣, 1988, 雷射表面熔解過程中之熱毛細對流的數學漸近解, 中國機械工程學會第五屆學術研討會, 台北市, pp. 289-302.
8. 溫宏仕, 陳志臣, 1988, 雷射表面熔解之熱流和熱傳現象, 中國機械工程學會第五屆學術研討會, 台北市, pp. 329-340.
9. 洪祖昌, 陳志臣, 許崇興, 林正光, 1988, 後燃器置有 V 型駐焔汽器之流場分析, 中國機械工程學會第五屆學術研討會, 台北市, pp. 277-288.
10. 陳文成, 陳志臣, 1990, 二維非穩態具變形表面之矩形長穴熱毛細對流的數值解, 中國機械工程學會第七屆學術研討會, 新竹市.
11. 黃三山, 吳俊其, 陳志臣, 1990, 軸對稱渦流迸裂之數值探討, 中華民國力學學會第十屆全國力學會議, 中壢市.
12. 呂中偉, 陳志臣, 1990, 具有液氣自由界面的矽式長晶之熱流場分析, 中國機械工程學會第七屆學術研討會, 新竹市.
13. 胡杰, 陳志臣, 1991, 將雷射光束轉換成光環對小圓棒之加熱法, 第四屆全國自動化科技研討會, 台北市.
14. J. C. Chen, J. Y. Chen, Z. C. Hong, 1991, Linear Marangoni instability of a fluid in circular cylindrical containers, The 42<sup>nd</sup> IAF Congress, Montreal, Canada.
15. 陳志臣, 胡杰, 1991, 雷射加熱提拉法生長單晶棒之研究, 中國機械工程學會第八屆學術研討會, 台北市.
16. 胡杰, 陳志臣, 1992, 雷射功率對生長小直徑鈮酸鋰單晶棒之探討, 中國機械工程學會第九屆學術研討會, 高雄市.
17. 吳淑芳, 許心在, 陳志臣, 1992, 同軸圓柱模式之熱張力穩定性分析, 中國機械工程學會第九屆學術研討會, 高雄市.



18. 陳志臣, 李有璋, 胡杰, 1993, 熱對流在利用浮點式長晶法生長小直徑鈮酸鋰單晶棒時對雜質分佈的影響, 中國機械工程學會第十屆學術研討會, 新竹市.
19. J. C. Chen and C. F. Chu, 1993, Thermocapillary convection and melt-solid interface in the floating zone, 第一屆全國熱流會議.
20. 陳志臣, 朱健夫, 1994, 浮點式長晶熱流場之數值模擬, 83 年高速電腦運用研討會.
21. 胡杰, 陳志臣, 1994, 在浮點式系統小直徑鈮酸鋰熔區固液界面之觀察, Proceedings of the 1994 Annual Conference of the Chinese Society for Material Science.
22. 胡杰, 李有璋, 陳志臣, 1994, 熔區界面與晶體生長關係, 中國機械工程學會第十一屆學術研討會.
23. 羅法盛, 胡杰, 陳志臣, 1994, LHPG 長晶系統之 CO<sub>2</sub> 雷射能量分析, 中國機械工程學會第 11 屆學術研討會.
24. 李有璋, 胡杰, 陳志臣, 1994, 熱對流在浮點式長晶法生長小直徑鈮酸鋰單晶棒時對雜質分佈的影響, Proceedings of the 1994 Annual Conference of the Chinese Society for Material Science.
25. J. C. Chen, Y. C. Lee, W. C. Horng, H. W. Yeh, F. S. Ro and J. Y. Chang, 1995, The growth of the Fe: doped LiNbO<sub>3</sub> crystal, Proceedings of the 1995 Annual Conference of the Chinese Society for Material Science, Vol. 2, pp. 108-109.
26. 羅法盛, 胡杰, 陳志臣, 1996, 量測與分析 LHPG 法所生長材料之熱輻射特性, 1996 中國材料學會年會.
27. 羅法盛, 胡杰, 陳志臣, 1996, 量測與分析 LHPG 長晶系統之 CO<sub>2</sub> 雷射功率分佈, 中國機械工程學會第 13 屆學術研討會.
28. 葉恆葳, 陳志臣, 1996, 單圓管與同心雙圓管之表面張力對流觀察, 第二十屆力學會議.
29. 李有璋, 洪文慶, 陳志臣, 1996, 鈦酸鋇晶纖的生長, 1996 光電科技研討會.
30. 賴彥志, 李有璋, 陳志臣, 1996, 含鐵鈮酸鋰纖維單晶之生長, 1996 光電科技研討會.
31. 楊景全, 李有璋, 陳志臣, 1996, BSO 晶體纖維熔解熱輻射分析, 1996 光電科技研討會.
32. 黃禎宏, 胡杰, 陳志臣, 1996, LHPG 法生長 YIG 單晶, 1996 光電科技研討會.
33. Y.-C. Lee and J.-C. Chen, 1997, The cracking of BaTiO<sub>3</sub> single crystal fibers in the LHPG system, Proceedings of 1997 Topical Meeting on Photorefractive Materials, Effects and Devices, pp. 133.
34. G.-H. Chou and J.-C. Chen, 1997, Modeling of reflux condensation phenomena in a vertical tube surrounded by isothermal fluid, The ASME/JSME fifth International Conference on Nuclear Engineering (ICONE-5), Nice, France.
35. J. C. Chen, C. Hu and D. Y. Lin, 1997, Effect of the reduction ratio on the heat transport and fluid motion in the float zone of lithium niobate during a melting process, ASME Proceeding of the 32<sup>nd</sup> National Heat Transfer Conference, Vol. 9, pp. 313-319.
36. J. C. Chen, Y. C. Lee and Y. J. Lai, 1998, Growth of the stoichiometric and nonstoichiometric BaTiO<sub>3</sub> crystal fibers by an LHPG method, IPC'98, Taipei, Taiwan.
37. Y. J. Lai and J. C. Chen, 1999, Highly Doped LiNbO<sub>3</sub>:Fe single-crystal fiber growth by LHPG,

Eleventh American Conference on Crystal Growth, Tucson, Arizona, USA.

38. C. H. Huang, J. C. Chen, and C. Hu, 1999, Growth of the Yttrium orthovanadate crystal fibers, Frontier-Science Research Conferences: Laser Crystals, La Jolla, California, USA.
39. Y. J. Lai and J. C. Chen, Investigation of the growth stability of  $\text{LiNbO}_3$  single-crystal fibers, Optics and Photonics Taiwan'99, Chung-Li, Taiwan.
40. C. J. Hu, J. C. Chen, and C. H. Huang, 1999, The effect of the growth rates on YIG single crystal growth Optics and Photonics Taiwan'99, Chung-Li, Taiwan.
41. Y. J. Lai and J. C. Chen, 2000, Investigation of growth mechanism and stability on stoichiometric  $\text{LiNbO}_3$  fibers grown by the laser-heated pedestal growth method, The 1<sup>st</sup> Asian Conference on Crystal Growth and Crystal Technology, Sendai, Japan.
42. Chao-Chang Hu and Jyh-Chen Chen, 2001, Yig crystal growth using off-stoichiometric source rods by LHPG method, The 13<sup>th</sup> International Conference on Crystal Growth, Kyoto, Japan.
43. Che-Ming Liu, Chang-Hung Chiang, Jyh-Chen Chen, Long-Jang Hu, and Sheuan-Perng Lin, 2001, Mg:sapphire crystal fibers grown by the LHPG method, The 13<sup>th</sup> International Conference on Crystal Growth, Kyoto, Japan
44. Chen-Hung Huang and Jyh-Chen Chen, 2001, Neodymium doping effects on the  $\text{Nd:YVO}_4$  crystal fibers grown by the LHPG method, The 13<sup>th</sup> International Conference on Crystal Growth, Kyoto, Japan.
45. 陳智勇,陳志臣, 2001, Growth of  $\text{Ba}_{1-x}\text{Ca}_x\text{TiO}_3$  single-crystal fiber by a laser-heated pedestal method, 2001 光電科技研討會, 高雄市.
46. 陳智勇,陳志臣, 2002, 鈮酸鋰雙摻雜不同配比氧化鎂、氧化鐵之晶纖生長, 2002 光電科技研討會, 台北市.
47. 許國君,陳志臣, 2002, 熱補償之負熱膨脹陶瓷材料製程, 2002 光電科技研討會, 台北市.
48. 許國君,陳志臣,胡杰, 2002, 鋰鋁矽酸鹽之負熱膨脹陶瓷材料製程, 2002 中國材料科學學會, 2002 年材料年會, 台北市.
49. Chia-Cheng Mao, Jyh-Chen Chen, and Ming-Lan Chang, 2002, Steady-state rheological behavior of semi-solid AZ91D magnesium alloy, The 7<sup>th</sup> International Conference on Semi-Solid Processing of Alloys and Composites, Tsukuba, Japan.
50. 陳智勇,陳志臣, 2003, Investigations of Growth Mechanism on Stoichiometric  $\text{LiNbO}_3$  Fibers Grown by the Laser-Heated Pedestal Growth Method, 2003 光電研討會, 台北市.
51. 江昌鴻,陳志臣, 2003, 鈦酸鈣鋇( $\text{Ba}_{1-x}\text{Ca}_x\text{TiO}_3$ )單晶生長, 2003 光電研討會, 台北市.
52. C. M. Liu, J. C. Chen, Y. C. Huang, H. L. Hsieh and M. H. Lin, 2004, Growth of Mg-Al spinel nanocrystals on sapphire surface using a precipitation process, Symposium on Nano Device Technology 2004, Hsinchu, Taiwan, pp.418-421.
53. J.-C, Chen, F.-S. Hwu, and B.-J. Chen, 2004, Numerical simulation of thermal and microdefect distributions effected by different types of heat shields during the Czochralski silicon crystal growth, The 21th National Conference of CSME, Kaohsiung, Taiwan.
54. 毛之成, 胡朝彰, 陳志臣, 2004, 使用 LHPG 法探討 YIG 晶纖的生長機制, 2004 光電研討會,

中壢市.

55. 江昌鴻, 陳智勇, 林昭宏, 李韻芝, 陳志臣, 張正陽, 2004, 摻鈦鋰酸鋰晶體生長, 2004 光電研討會, 中壢市.
56. G.-J. Sheu, S.H. Tu, J. Chang, and J.-C. Chen, 2005, Performance improvement by using integrated micro heat pipe in LED module, 2005 Optics and Photonics, San Diego, California USA.
57. C.-M. Liu and J.-C. Chen, 2005, The morphology of etch pits on a sapphire surface, The 2nd International Symposium on Point Defect and Nonstoichiometry, Kaohsiung, Taiwan.
58. C.-L. Chung, J.-C. Chen, and C.-J. Tseng, 2005, Electrical and optical properties of TiO<sub>2</sub>-doped ZnO films prepared by radio frequency magnetron sputtering, The 2nd International Symposium on Point Defect and Nonstoichiometry, Kaohsiung, Taiwan.
59. C.-M. Liu, J.-C. Chen, and C.-J. Chen, 2005, The morphology of an epitaxial Mg-Al spinel layer on a sapphire surface, The 3<sup>rd</sup> Asian Conference on Crystal Growth and Crystal Technology, Beijing, China.
60. C.-Y. Chen, J.-C. Chen and C.-T. Chiab, 2005, Optical Property and Defect Structure Studies in LiNbO<sub>3</sub> Single Crystals with Different [Li]/[Nb] Ratio, The 3<sup>rd</sup> Asian Conference on Crystal Growth and Crystal Technology, Beijing, China.
61. C.-H. Chiang and J.-C. Chen, 2005, Growth and Properties of Ru Doping Lithium Niobate Crystal, The 3<sup>rd</sup> Asian Conference on Crystal Growth and Crystal Technology, Beijing, China.
62. T.-C. Mao and J.-C. Chen, 2005, Effect of the addition CeO<sub>2</sub> on the growth of YIG single crystal fibers using laser heated pedestal growth method, The 3<sup>rd</sup> Asian Conference on Crystal Growth and Crystal Technology, Beijing, China.
63. C.-W. Lu and J.-C. Chen, 2005, Influence of thermal conductivity on interface shape during growth of sapphire crystal using a heat-exchanger-method, The 3<sup>rd</sup> Asian Conference on Crystal Growth and Crystal Technology, Beijing, China.
64. Sheu, G. J., Hwu, F. S., Tu, S. H., Chen, W. T., Chang, J. Y. and Chen, J. C., 2005, The heat dissipation performance of LED applied a MHP, Proceedings of SPIE - The International Society for Optical Engineering, Vol. 5941, p 1-8. (EI)
65. 吳宜寧, 簡政尉, 陳志臣, 2005, 干涉微影之製程參數對週期性結構外型之影響, 中國機械工程學會第 22 屆學術研討會, 中壢市.
66. 簡政尉, 陳志臣, 李朱育, 2005, Line Width Analysis for Static Exposure by Laser Interferometric Lithography Technique 中國機械工程學會第 22 屆學術研討會, 中壢市.
67. 許國君, 胡凡勳, 陳志臣, 2005, LED 基板高寬比與週遭環境對系統封裝熱阻之影響, 2005 台灣光電科技研討會, 台南, 台灣.
68. 胡凡勳, 許國君, 周漢源, 鄭健宏, 陳志臣, 2005, “高功率 LED 之熱場模擬與封裝分析,” 中華民國力學學會第廿九屆全國力學會議, 新竹, 台灣.
69. C.-W. Chien, J.-C. Chen, and Y.-N. Wu, 2006, The influence of the development and exposure processes on the shape of two-dimensional periodic arrays fabricated by interferometric

lithography, *Advances in Micro and Nano Technology, Proceedings of the 2<sup>nd</sup> International Symposium on Micro and Nano Technology*, pp. 79-83.

70. C.-W. Chien, H.-L. Hsieh, J.-C. Chen and Y.-C. Huang, 2006, The Phenomenon of step exposure for large-area by laser interferometric lithography technique, 2006 Symposium on Nano Device Technology, Hsinchu, Taiwan.
71. H.-I. Chen, J.-C. Chen, J.-J. Liao, 2006, The influence of stirring and resting condition on the steady-state rheology of semi-solid AZ91D magnesium alloy, 2<sup>nd</sup> International Conference on Magnesium, Beijing, China.
72. F-S Hwu, G.-J. Sheu, and J.-C. Chen, 2006, Thermal modeling and performance of LED packaging for illuminating device, *Proceedings of SPIE - The International Society for Optical Engineering*, Vol. 6337, p 63371J. (EI)
73. C.-W. Chien and Jyh-Chen Chen, 2006, The influence of exposure and development parameters on the shape of periodic structure fabricated by interferometric lithography, *SPIE-The International Society for Optical Engineering*, San Diego, USA.
74. H.-L. Hsieh, C.-W. Chien, Y.-C. Huang, and J.-C. Chen, 2006, The Overlapping Effects of Step Exposure by Laser Interferometric Lithography System, *SPIE-The International Society for Optical Engineering*, San Diego, USA.
75. C. H. Chiang, J. C. Chen, C. H. Lin, and J. Y. Chang, 2006, Photorefractive properties of Ru doped lithium niobate crystals utilizing a 532nm solid-state laser, 2006 台灣光電科技研討會, 新竹市.
76. 葉隆興, 胡凡勳, 許國君, 陳志臣, 2006, 發光二極體於封閉空間及自然對流環境下之熱模擬分析, 中國機械工程學會第二十三屆全國學術研討會, 台南市
77. C. H. Chiang, J. C. Chen, and C. Hu, 2007, Photorefractive and photochromic properties of Ru-doped lithium niobate crystal, *Conference on Lasers and Electro-Optic*, Munich, Germany.
78. C. H. Chiang, J. C. Chen, T. M. Huang, and C. Hu, 2007, Properties of Ru-doped near-stoichiometric lithium niobate crystals produced by vapor transport equilibration, *The 15<sup>th</sup> International Conference on Crystal Growth*, Salt Lake City, Utah, USA.
79. C.-H. Chen, J.-C. Chen, C.-W. Lu, C. M. Liu, W. C. Hsu, and S. H. Ho, 2007, Numerical simulation of sapphire crystal growth using Kyropoulos method, *The 15<sup>th</sup> International Conference on Crystal Growth*, Salt Lake City, Utah, USA.
80. C. W. Lu, J. C. Chen, C. H. Chen, C. H. Chen, W. C. Hsu, S. H. Ho, 2007, Effect of RF coil type on sapphire melt flow pattern in a non-vacuum Czochralski furnace, *The 15<sup>th</sup> International Conference on Crystal Growth*, Salt Lake City, Utah, USA.
81. H. L. Hsieh, Y. C. Huang, C. Y. Chen, and J. C. Chen, 2007, Optimal design of a leaf spring positioning stage by Taguchi method, 中國機械工程學會第二十四屆全國學術研討會, 中壢市
82. 陳文棟, 李有璋, 潘文勤, 許國君, 胡凡勳, 張正陽, 陳志臣, 2007, 平板式熱管散熱效能之研究, 中國機械工程學會第二十四屆全國學術研討會, 中壢市

83. 胡凡勳, 許國君, 林明德, 顏璽軒, 陳志臣, 2007, 交流電發光二極體晶片熱場模擬研究, 中國機械工程學會第二十四屆全國學術研討會, 中壢市
84. C. H. Chen, J. C. Chen, C. W. Lu, C. M Liu, W. C. Hsu, S. H. Ho, 2008, Global heat and flow analyses of sapphire single crystal growth using the Kyropoulos method, The 4<sup>th</sup> Asian Conference on Crystal Growth and Crystal Technology, Sendai, Japan.
85. C. W. Lu, J. C. Chen, C. H. Chen, H. C. Chu, C. H. Chen, W. C. Hsu, C. M Liu, 2008, Numerical simulation of an inductively heated CZ sapphire growth crystal process, The 4<sup>th</sup> Asian Conference on Crystal Growth and Crystal Technology, Sendai, Japan.
86. H. I Chen and J. C. Chen, 2008, Microstructural observation of the effect of different shearing conditions on the rheology of a semi-solid magnesium alloy, The 10<sup>th</sup> International Conference on Semi-Solid Processing of Alloys and Composites. Aachen, German.
87. Y.-Y. Teng, J.-C. Chen, C.-W. Lu, C.-Y. Chen, 2009, The carbon distribution of growing multicrystalline silicon ingot during the directional solidification process, The 17th American Conference on Crystal Growth and Epitaxy, Lake Geneva, Wisconsin, USA.
88. C.-W. Lu, J.-C. Chen, C.-H. Chen, W.-C. Hsu, C.-H. Liu, 2009, Effect of RF coil position on transport processes during the stages of Sapphire CZ crystal growth, The 17th American Conference on Crystal Growth and Epitaxy, Lake Geneva, Wisconsin, USA.
89. H.-B. Nguyen and J.-C. Chen, 2009, Transient motion of a microdroplet caused by thermocapillary effect, the 2nd Asian Symposium on Computational Heat Transfer and Fluid Flow, Jeju, Korea.
90. H.-L. Hsieh, J.-Y. Lee, J.-C. Chen, S. Blaizel, R. Deturche, and G. Lerondel, 2009, Novel Interferometric Stage Based on Quasi Common Optical Path Configuration for Enlarged Near-field Optical Application, 7<sup>th</sup> Asia-Pacific International Conference on Near-Field Optics, South Korea.
91. C.-H. Chen, J.-C. Chen, C-W Lu, and C.-M. Liu, 2010, Numerical simulation of heat and fluid Flows for a sapphire single crystal growth by the Kyropoulos method, the 16<sup>th</sup> International Conference on Crystal Growth, Beijing, China.
92. Y.-Y. Teng, J.-C. Chen, C.-W. Lu, H.-I Chen, C. Hsu and C.-Y. Chen, 2010, Effects of the furnace pressure on the oxygen and silicon oxide distributions during the growth of multicrystalline silicon ingots by the directional solidification process, Journal of Crystal Growth, the 16<sup>th</sup> International Conference on Crystal Growth, Beijing, China.
93. Y.-Y. Teng, J.-C. Chen, W.-T Wun, C.-W. Lu, H.-I Chen, K. Hsieh, C.-Y. Chen, and W.-C. Lan, 2010, Numerical simulation of oxygen transport during the CZ silicon crystal growth process, the 16<sup>th</sup> International Conference on Crystal Growth, Beijing, China.