

[学術論文]

1. S. Asada, K. Murata, H. Tsuchida, "Modeling of stacking faults in 4H-SiC n-type epilayer for TCAD simulation", IEEE Transaction on Electron Devices, 70, 1757, 2023.
2. <**Open access**> S. Asada, T. Miyazawa, H. Tsuchida, "Limited current conduction due to various types of stacking faults in n-type 4H-SiC epilayers", Applied Physics Express, 15, 045502, 2022.
3. I. Kamata, N. Hoshino, K. Betsuyaku, T. Kanda, H. Tsuchida, "Investigation of propagation and coalescence of threading screw and mixed dislocations in 4H-SiC crystals grown by the high-temperature gas source method", Journal of Crystal Growth, 590, 126676, 2022.
4. S. Asada, T. Miyazawa, H. Tsuchida, "Simulation Analysis of Increase in ON-State Voltage of 4H-SiC Bipolar Devices Due to Single-Shockley-Stacking Faults", IEEE Transaction on Electron Devices, 68, 3468, 2021.
5. K. Maeda, K. Murata, I. Kamata, H. Tsuchida, "Mechanical-stressing measurements of formation energy of single Shockley stacking faults in 4H-SiC", Applied Physics Express, 14, 044001, 2021.
6. K. Murata, T. Tawara, A. Yang, R. Takanashi, T. Miyazawa, H. Tsuchida, "Carrier lifetime control by intentional boron doping in aluminum doped p-type 4H-SiC epilayers", Journal of Applied Physics, 129, 025702, 2021.
7. Y. Yamazaki, Y. Chiba, S. Sato, T. Makino, N. Yamada, T. Satoh, K. Kojima, Y. Hijikata, H. Tsuchida, N. Hoshino, S-Y Lee, T. Ohshima, "Carrier dynamics of silicon vacancies of SiC under simultaneous optically and electrically excitations", Applied Physics Letters, 118, 021106, 2021.
8. K. Murata, D. Mori, H. Tsuji, T. Fujii, A. Takigawa, H. Tsuchida, "Direct nitridation of 4H-SiC(0001) surface by H₂/N₂ treatment", Journal of Applied Physics 13, 095506, 2020)
9. <**APEX spotlights, open access**> N. Hoshino, I. Kamata, T. Kanda, Y. Tokuda, H. Kuno, H. Tsuchida, "Reduction in dislocation densities in 4H-SiC bulk crystal grown at high growth rate by high-temperature gas-source method", Applied Physics Express, 13, 095502, 2020.
10. S. Asada, T. Miyazawa, H. Tsuchida, "Effects of stacking faults on electron transport in 4H-SiC n-type epilayers under unipolar operation evaluated by TCAD simulation", Japanese Journal of Applied Physics 59, 054003, 2020.
11. Y. Tokuda, H. Uehigashi, K. Murata, H. Tsuchida, "Fabrication of 4H-SiC PiN Diodes on Substrate Grown by HTCVD Method", Japanese Journal of Applied Physics 59, SGGD07, 2020.
12. Y. Tokuda, I. Kamata, N. Hoshino, H. Tsuchida, "Glid of C-core partial dislocations along edges of expanding double-Shockley stacking fault Shockley stacking fault in heavily nitrogen-doped 4H-SiC", Japanese Journal of Applied Physics 58, 121005, 2019.

13. K. Maeda, K. Murata, T. Tawara, I. Kamata, H. Tsuchida, “Suppressed expansion of single Shockley stacking faults at narrow widths in 4H-SiC”, Applied Physics Express12, 124002, 2019.
14. J. P. Hadorn et al., “Direct evaluation of threading dislocations in 4H-SiC through large-angle convergent beam electron diffraction”, Philosophical Magazine 100, 194, 2019.
15. A. Yang, K. Murata, T. Miyazawa, T. Tawara, H. Tsuchida, “Analysis of carrier lifetimes in N + B-doped n-type 4H-SiC epilayers”, Journal of Applied Physics 126, 055103, 2019.
16. K. Murata, T. Tawara, A. Yang, R. Takanashi, T. Miyazawa, H. Tsuchida, “Wide-ranging control of carrier lifetimes in n-type 4H-SiC epilayer by intentional vanadium doping”, Journal of Applied Physics 126, 045711, 2019.
17. A. Yang, K. Murata, T. Miyazawa, T. Tawara, H. Tsuchida, “Time-resolved photoluminescence spectral analysis of phonon-assisted DAP and e-A recombination in N+B-doped n-type 4H-SiC epilayers”, Journal of Physics D: Applied Physics 52, 10LT01, 2019.
18. R. Tanuma, I. Kamata, J.P. Hadorn, H. Tsuchida, “Two-photon-excited, three-dimensional photoluminescence imaging and dislocation line analysis of threading dislocations in 4H-SiC”, Journal of Applied Physics 124, 125703, 2018.
19. <**Review paper**> H. Tsuchida, I. Kamata, T. Miyazawa, M. Ito, X. Zhang, M. Nagano, “Recent advances in 4H-SiC epitaxy for high-voltage power devices”, Materials Science in Semiconductor Processing 78, 2, 2018.
20. T. Tawara, S. Matsunaga, T. Fujimoto, M. Ryo, M. Miyazato, T. Miyazawa, K. Takenaka, M. Miyajima, A. Otsuki, Y. Yonezawa, T. Kato, H. Okumura, T. Kimoto, H. Tsuchida, “Injected carrier concentration dependence of the expansion of single Shockley-type stacking faults in 4H-SiC PiN diodes”, Journal of Applied Physics 123, 025707, 2018.
21. H. Suo, K. Eto, T. Ise, Y. Tokuda, H. Osawa, H. Tsuchida, T. Kato, H. Okumura, “Crystal growth and evaluation of nitrogen and aluminum co-doped N-type 4H-SiC grown by physical vapor transport”, Journal of Crystal Growth 498, 224, 2018.
22. Y. Tokuda, I. Kamata, T. Miyazawa, N. Hoshino, T. Kato, H. Okumura, T. Kimoto, H. Tsuchida, “Glide velocities of Si-core partial dislocations for double-Shockley stacking fault expansion in heavily nitrogen-doped SiC during high-temperature annealing”, Journal of Applied Physics 124, 025705, 2018.
23. D. Mori, Y. Fujita, T. Hirose, K. Murata, H. Tsuchida, F. Matsui, “Atomic characterization of nano-facet nitridation at SiC (0-100) surface”, Applied Physics Letters, 112, 131603, 2018.
24. R. Tanuma, I. Kamata, H. Tsuchida, “Non-destructive Three-dimensional Imaging of Extended Defects in 4H-SiC”, ECS Transactions 80 (7) 229, 2017.
25. N. Hoshino, I. Kamata, Y. Tokuda, E. Makino, T. Kanda, N. Sugiyama, H. Kuno, J. Kojima, H. Tsuchida, “Fast growth of n-type 4H-SiC bulk crystal by gas-source method”, Journal Crustal

Growth 478, 9, 2017.

26. Y. Tokuda, T. Yamashita, I. Kamata, T. Naijo, T. Miyazawa, S. Hayashi, N. Hoshino, T. Kato, H. Okumura, T. Kimoto, H. Tsuchida, “Structural analysis of double-layer Shockley stacking faults formed in heavily-nitrogen doped 4H-SiC during annealing”, Journal of Applied Physics 122, 045707, 2017.
27. H. Tsuchida, “Advances in 4H-SiC crystal growth technology for high-voltage SiC power devices”, IEEJ Journal 137, 10, 677, 2017.
28. T. Okuda, T. Miyazawa, H. Tsuchida, T. Kimoto, J. Suda, “Carrier Lifetimes in Lightly-Doped p-type 4H-SiC epitaxial layers enhanced by post-growth processes and surface passivation”, Journal of Electronic Materials 46, 6411, 2017.
29. A. Iijima, I. Kamata, H. Tsuchida, J. Suda, T. Kimoto, “Correlation between Shapes of Shockley Stacking Faults and Structures of Basal Plane Dislocations in 4H-SiC Epilayers”, Philosophical Magazine, 97, Issue 30, 2017.
30. Y. Tokuda, I. Kamata, N. Hoshino, T. Kato, H. Okumura, T. Kimoto, H. Tsuchida, “Observation of double Shockley stacking fault expansion in heavily nitrogen-doped 4H-SiC using PL technique”, Journal Crystal Growth 468, 889, 2017.
31. H. Suo, K. Eto, T. Ise, Y. Tokuda, H. Osawa, H. Tsuchida, T. Kato, H. Okumura, “Difference of double Shockley-type stacking faults expansion in highly nitrogen-doped and nitrogen-boron co-doped n-type 4H-SiC crystals”, Journal Crystal Growth 468, 879, 2017.
32. <*APEX spotlights*> T. Miyazawa, T. Tawara, R. Takanashi, H. Tsuchida, “Vanadium doping in 4H-SiC epitaxial growth for carrier lifetime control”, Applied Physics Express 9, 111301, 2016.
33. T. Tawara, T. Miyazawa, M. Ryo, M. Miyazato, T. Fujimoto, K. Takenaka, S. Matsunaga, M. Miyajima, A. Otsuki, Y. Yonezawa, T. Kato, H. Okumura, T. Kimoto, H. Tsuchida, “Short minority carrier lifetimes in highly nitrogen-doped 4H-SiC epilayers for suppression of the stacking fault formation in PiN diodes”, Journal of Applied Physics 120, 115101, 2016.
34. Y. Tokuda, E. Makino, N. Sugiyama, I. Kamata, N. Hoshino, J. Kojima, K. Hara, H. Tsuchida, “Stable and high-speed SiC bulk growth without dendrites by the HTCVD method”, Journal Crystal Growth 448, 29, 2016.
35. A. Tanaka, H. Matsuhata, N. Kawabata, D. Mori, K. Inoue, M. Ryo, T. Fujimoto, T. Tawara, M. Miyazato, M. Miyajima, K. Fukuda, A. Otsuki, T. Kato, H. Tsuchida, Y. Yonezawa, T. Kimoto, “Growth of Shockley type stacking faults upon forward degradation in 4H-SiC p-i-n diodes”, Journal of Applied Physics 119, 095711, 2016.
36. T. Miyazawa, K. Nakayama, A. Tanaka, K. Asano, S. Ji, K. Kojima, Y. Ishida, H. Tsuchida, “Epitaxial growth and characterization of thick multi-layer 4H-SiC for very high-voltage insulated gate bipolar transistors”, Journal of Applied Physics 118, 085702, 2015.
37. S. Ji, K. Eto, S. Yoshida, K. Kojima, Y. Ishida, S. Saito, H. Tsuchida, H. Okumura, “Hopping

conduction range of heavily Al-doped 4H-SiC thick epilayers grown by CVD”, Applied Physics Express 8, 121302, 2015.

38. W. Kada, Y. Kanbayashi, N. Iwamoto, S. Onoda, T. Makino, M. Koka, T. Kamiya, N. Hoshino, H. Tsuchida, K. Kojima, O. Hanaizumi, T. Ohshima, “Development of Diagnostic Method for Deep Levels in Semiconductors using Charge Induced by Heavy Ion Microbeams”, Nuclear Instruments and Methods in Physics Research B 348, 240, 2015.
39. Z. Pastuovic, I. Capan, D. D. Cohen, J. Forneris, N. Iwamoto, T. Ohshima, R. Siegele, N. Hoshino, H. Tsuchida, “Radiation Hardness of n-type SiC Schottky Barrier Diodes irradiated with MeV He ion microbeam”, Nuclear Instruments and Methods in Physics Research B 348, 233, 2015.
40. N. Thierry-Jebali, C. Kawahara, T. Miyazawa, H. Tsuchida, T. Kimoto, “Application of UV photoluminescence imaging spectroscopy for stacking faults identification on thick, lightly n-type doped, 4°-off 4H-SiC epilayers”, AIP Advances 5, 037121, 2015.
41. S. Ji, K. Kojima, Y. Ishida, S. Saito, H. Yamaguchi, S. Yoshida, H. Tsuchida, H. Okumura, “Experiment on alleviating the bending of CVD-grown heavily Al-doped 4H-SiC epiwafer by codoping of N”, Japanese Journal of Applied Physics 54, 04DP08, 2015.
42. H. Tsuchida, R. Takanashi, I. Kamata, N. Hoshino, E. Makino, J. Kojima, “Deflection of threading dislocations in patterned 4H-SiC epitaxial growth”, Journal of Crystal Growth, 402, 260, 2014.
43. T. Okuda, T. Miyazawa, H. Tsuchida, T. Kimoto, J. Suda, “Enhancement of carrier lifetime in lightly Al-doped p-type 4H-SiC epitaxial layers by combination of thermal oxidation and hydrogen annealing”, Applied Physics Express 7, 085501, 2014.
44. K. Nakayama, T. Hemmi, K. Asano, T. Miyazawa, H. Tsuchida, “Observations of overlapped single Shockley stacking faults in 4H-SiC PiN diode”, ACTA Physica Polonica A, 125, 962, 2014.
45. R. Tanuma, M. Nagano, I. Kamata, H. Tsuchida, “Three-dimensional imaging and tilt-angle analysis of dislocations in 4H-SiC by two-photon-excited band-edge photoluminescence”, Applied Physics Express 7, 121303, 2014.
46. <**APEX spotlights**> N. Hoshino, I. Kamata, Y. Tokuda, E. Makino, N. Sugiyama, J. Kojima, H. Tsuchida, “High-speed, high-quality crystal growth of 4H-SiC by high-temperature gas source method”, Applied Physics Express 7, 065502, 2014.
47. <**APEX spotlights**> R. Tanuma, H. Tsuchida, “Three-dimensional imaging of extended defects in 4H-SiC by optical second-harmonic generation and two-photon-excited photoluminescence”, Applied Physics Express 7, 021304, 2014.
48. H. Fujibayashi, M. Ito, H. Ito, I. Kamata, M. Naito, K. Hara, S. Yamauchi, K. Suzuki, M. Yajima, S. Mitani, K. Suzuki, H. Aoki, K. Nishikawa, T. Kozawa, H. Tsuchida, “Development

of a 150 mm 4H-SiC epitaxial reactor with high-speed wafer rotation”, Applied Physics Express 7, 015502, 2014.

49. A. Tanaka, K. Nakayama, K. Asano, T. Miyazawa, H. Tsuchida, “C OCVD characteristics of 4H-SiC PiN diode with carbon implantation”, Japanese Journal of Applied Physics 53, 04EP08, 2014.
50. S. Ji, K. Kojima, Y. Ishida, S. Saito, T. Kato, H. Tsuchida, S. Yoshida, H. Okumura, “Suppressing Al memory effect on CVD growth of 4H-SiC epilayers by adding hydrogen chloride gas”, Japanese Journal of Applied Physics 53, 04EP07, 2014.
51. R. Tanuma, D. Mori, I. Kamata, H. Tsuchida, “X-ray microbeam three dimensional topography for dislocation strain-field analysis of 4H-SiC”, Journal of Applied Physics 114, 023511, 2013.
52. S. Ji, K. Kojima, Y. Ishida, S. Saito, T. Kato, H. Tsuchida, S. Yoshida, H. Okumura, “The growth of low resistivity, heavily Al-doped 4H-SiC thick epilayers by hot-wall chemical vapor deposition”, Journal of Crystal Growth 380, 85, 2013.
53. T. Miyazawa, H. Tsuchida, “Thick 4H-SiC epitaxial growth and defect reduction for very high voltage bipolar devices”, ECS Journal of Solid Science and Technology 2, N3036, 2013.
54. 土田秀一、鎌田功穂、宮澤哲哉、伊藤雅彦、長野正裕、田沼良平、「4H-SiC エピタキシャル成長における欠陥挙動解析と欠陥制御技術」、日本結晶成長学会誌 40、33、2013.
55. A. Tanaka, K. Nakayama, K. Asano, T. Miyazawa, H. Tsuchida, “Conductivity degradation of 4H-SiC p-i-n diode with in-grown stacking faults”, Japanese Journal of Applied Physics 52, 04CP10, 2013.
56. M. Nagano, I. Kamata, H. Tsuchida, “Plan-View and Cross-Sectional Photoluminescence Imaging Analyses of Threading Dislocations in 4H-SiC Epilayers”, Japanese Journal of Applied Physics 52, 04CP09, 2013.
57. N. Iwamoto, B.C. Johnson, N. Hoshino, M. Ito, H. Tsuchida, K. Kojima, T. Ohshima, Journal of Applied Physics 113, 143714, 2013.
58. S. Ji, K. Kojima, Y. Ishida, S. Yoshida, H. Tsuchida, H. Okumura, Journal of Applied Physics 52, 04CP04, 2013.
59. T. Miyazawa, H. Tsuchida, “Point defect reduction and carrier lifetime improvement of Si- and C-face 4H-SiC epilayers”, Journal of Applied Physics 113, 083714, 2013.
60. R. Hirano, H. Tsuchida, M. Tajima, K. Itoh, K. Maeda, “Polarization of photoluminescence from partial dislocations in 4H-SiC”, Applied Physics Express 6, 011301, 2013.
61. R. Tanuma, D. Mori, I. Kamata, H. Tsuchida, “X-ray microbeam three-dimensional topography imaging and strain analysis of basal plane dislocations and threading edge dislocations in 4H-SiC”, Applied Physics Express 5, 061301, 2012.
62. J. Rozen, M. Nagano, H. Tsuchida, “Enhancing interface quality by gate dielectric deposition

- on a nitrogen-conditioned 4H-SiC surface”, Journal of Material Research 28, 28, 2013.
- 63. H. Tsuchida, T. Miyazawa, X. Zhang, M. Nagano, R. Tanuma, I. Kamata, M. Ito, “Growth and characterization of thick 4H-SiC Epilayers for very high voltage bipolar devices”, ECS transactions, 50, 109, 2012.
 - 64. Y. Ohno, I. Yonezawa, K. Miyao, K. Maeda, H. Tsuchida, “In-situ transmission electron microscopy of partial-dislocation glide in 4H-SiC under electron radiation”, Applied Physics Letters 101, 042102, 2012.
 - 65. X. Zhang, H. Tsuchida, “Conversion of basal plane dislocations to threading edge dislocations in 4H-SiC by high temperature annealing”, Journal of Applied Physics 111, 123512, 2012.
 - 66. R. Tanuma, D. Mori, I. Kamata, H. Tsuchida, “X-ray microbeam three-dimensional topography imaging and strain analysis of basal plane dislocations and threading edge dislocations in 4H-SiC”, Applied Physics Express 5, 061301, 2012.
 - 67. K. Nakayama, A. Tanaka, M. Nishimura, K. Asano, T. Miyazawa, M. Ito, H. Tsuchida, “Characteristics of 4H-SiC pin diode with carbon implantation/thermal oxidation”, IEEE Transactions on Electron Devices 59, 895, 2012.
 - 68. H. Tsuchida, I. Kamata and M. Nagano, “Formation of extended defects in 4H-SiC epitaxial growth”, Journal of the Vacuum Society of Japan 54, 353, 2011.
 - 69. K. Nakayama, Y. Sugawara, H. Tsuchida, C. Kimura, H. Aoki, “Drift phenomena of forward and reverse recovery characteristics in {0001} 4H-SiC P-i-n diode”, Japanese Journal of Applied Physics 50, 04DF04, 2011.
 - 70. T. Miyazawa, M. Ito, H. Tsuchida, “Evaluation of long carrier lifetimes in thick 4H Silicon carbide epitaxial layers”, Applied Physics Letters 98, 202106, 2010.
 - 71. I. Kamata, X. Zhang, H. Tsuchida, “Photoluminescence of Frank-type defects on the basal plane in 4H-SiC epilayers”, Applied Physics Letters 97, 172107, 2010.
 - 72. 中山浩二、石井竜介、菅原良孝、浅野勝則、土田秀一、宮澤哲哉、「大容量・SiC ツエナーダイオードの作製と電気特性評価」、電気学会論文誌 C 130、1343、2010。
 - 73. M. Nagano, H. Tsuchida, T. Suzuki, T. Hatakeyama, J. Senzaki and K. Fukuda, “Annealing induced extended defects in as-grown and ion-implanted 4H-SiC epitaxial layers”, Journal of Applied Physics 108, 013511, 2010.
 - 74. <**Review paper**> H. Tsuchida, M. Ito, I. Kamata and M. Nagano, “Formation of extended defects in 4H-SiC epitaxial growth and development of a fast growth technique”, Physica Status Solidi (B) 246, 1553, 2009.
 - 75. I. Kamata, M. Nagano, H. Tsuchida, Yi. Chen, M. Dudley, “Investigation of character and spatial distribution of threading edge dislocations in 4H-SiC epilayers by high-resolution topography”, Journal of Crystal Growth 311, 1416, 2009.
 - 76. S. Nakashima, T. Kitamura, T. Kato, K. Kojima, R. Kosugi, H. Okumura, H. Tsuchida, M. Ito,

“Determination of free carrier density in the low doping regime of 4H-SiC by Raman scattering”, Applied Physics Letters 93, 121913, 2008.

77. 中山浩二、菅原良孝、石井竜介、土田秀一、鎌田功穂、三柳俊之、中村智宣、「4H-SiC pin ダイオードの順方向劣化特性と高耐圧少劣化 (000-1)C 面 4H-SiC pin ダイオード」、電気学会論文誌 D 128、1013、2008.
78. L. Storasta, H. Tsuchida, T. Miyazawa, T. Ohshima, “Enhanced annealing of the Z1/2 defect in 4H-SiC epilayers”, Journal of Applied Physics 103, 013705, 2008.
79. H. Tsuchida, I. Kamata, M. Nagano, “Formation of basal plane Frank-type faults in 4H-SiC epitaxial growth”, Journal of Crystal Growth 310, 757, 2008.
80. R. Ishii, H. Tsuchida, K. Nakayama, and Y. Sugawara, “20V-400A SiC zener diodes with excellent temperature coefficient”, Proceedings of the International Symposium on Power Semiconductor Devices and ICs 4294986, 277, 2007.
81. M. Ito, L. Storasta, and H. Tsuchida, “Development of 4H-SiC epitaxial growth technique achieving high growth rate and large-area uniformity”, Applied Physics Express 1, 015001, 2008.
82. H. Tsuchida, I. Kamata and M. Nagano, “Investigation of defect formation in 4H-SiC epitaxial growth by X-ray topography and defect selective etching”, Journal of Crystal Growth 306, 254, 2007.
83. R. Akimoto, T. Simoyama, H. Tsuchida, S. Namiki, C. G. Lim, M. Nagase, T. Mozume, T. Hasama and H. Ishikawa, “All-optical demultiplexing of 160–10 Gbit/s signals with Mach-Zehnder interferometric switch utilizing intersubband transition in nGaAs/AlAs/AlAsSb quantum well”, Applied Physics Letters 91, 221115, 2007.
84. L. Storasta and H. Tsuchida, “Reduction of traps and improvement of carrier lifetime in 4H-SiC epilayers by ion implantation”, Applied Physics Letters 90, 062116, 2007.
85. I. Kamata, H. Tsuchida, W.M. Vetter, M. Dudley, “High resolution X-ray Topography od dislocations in 4H-SiC epilayers”, Journal of Materials Research 22, 845, 2007.
86. T. Miyanagi, H. Tsuchida, I. Kamata, T. Nakamura, K. Nakayama, R. Ishii and Y. Sugawara, “Annealing effects on single Shockley faults in 4H-SiC”, Applied Physics Letters 89, 062104, 2006.
87. H. Tsuchida, T. Miyanagi, I. Kamata, T. Nakamura, R. Ishii, “Growth of thick 4H-SiC(000-1) epilayers and reduction of basal plane dislocations”, Japanese Journal of Applied Physics, Part2, Letters 44, L806, 2005.
88. S. Izumi, H. Tsuchida, I. Kamata, “Structural analysis and reduction of in-grown stacking faults in the 4H-SiC epilayers”, Applied Physics Letters 86, 202108, 2005.
89. W. Vetter, H. Tsuchida, I. Kamata, M. Dudley, “Simulation of threading dislocations images in X-ray topographs of silicon carbide homo-epilayers”, Journal of Applied Crystallography 38,

442, 2005.

90. T. Nakamura, T. Miyanagi, H. Tsuchida, I. Kamata, T. Jikimoto, "A 4.15 kV, 9.07 m Ω cm² 4H-SiC Schottky barrier diode using Mo contact annealed at high temperature", IEEE electron Device Letters 26, 99, 2005.
91. 土田秀一、鎌田功穂、和泉俊介、俵武志、「縦型ホットウォール炉における低マイクロパイプ密度・厚膜 4H-SiC エピタキシャル成長」、電気情報通信学会部門誌 C、Vol. J86-C, 350, 2003.
92. 吉川正人、石田夕起、直本保、土方泰斗、伊藤久義、奥村元、高橋徹夫、土田秀一、吉田貞史、「炭化ケイ素基板上に成長させた 1200°C ドライ酸化膜中の界面欠陥の電気特性とそのアニーリング効果」、電気情報通信学会部門誌 C、Vol. J86-C, 426, 2003.
93. H. Tsuchida, I. Kamata, T. Jikimoto and K. Izumi, "Epitaxial growth of a low-doped 4H-SiC layer on a micropipe stop layer", Japanese Journal of Applied Physics, Vol. 41, pp. L1300, 2002.
94. I. Kamata, H. Tsuchida, T. Jikimoto and K. Izumi, "The influence of 4H-SiC growth condition to micropipe dissociation", Japanese Journal of Applied Physics. Vol. 41 pp. L 1137, 2002.
95. H. Tsuchida, I. Kamata, T. Jikimoto, K. Izumi, "Epitaxial growth of thick 4H-SiC layers in a vertical radiant-heating reactor", Journal of Crystal Growth, 237-239, 1206, 2002
96. I. Kamata, H. Tsuchida, T. Jikimoto, K. Izumi, "Influence of 4H-SiC growth condition to micropipe dissociation", Japanese Journal of Applied Physics, 41, L1137, 2002.
97. H. Tsuchida, I. Kamata, T. Jikimoto, K. Izumi, "Growth of thick and low-doped 4H-SiC epitaxial layers in a vertical radiant-heating reactor", IEE Electrical Engineering in Japan, 123, 637, 2002.
98. 土田秀一、鎌田功穂、直本保、泉邦和、「高速成長エピタキシャル単結晶膜を用いた高電圧 4H-SiC ショットキーダイオードの開発」、電気学会部門誌 A、122-B、2002.
99. 土田秀一、鎌田功穂、直本保、泉邦和、「SiC 基板表面の平坦化技術」、表面科学、21、No.22、7842000.
100. I. Kamata, H. Tsuchida, T. Jikimoto, and K. Izumi, "Improvement in the electrical property of 4H-SiC epi layer by micropipe dissociation ", Japanese Journal of Applied Physics, 40, L1012, 2001.
101. 土田秀一、鎌田功穂、直本保、泉邦和、「縦型輻射加熱式 VPE 装置による厚膜・低キャリア濃度 4H-SiC エピタキシャル成長」、電気学会部門誌 A、平成 13 年 2 月号、149, 2001.
102. I. Kamata, H. Tsuchida, T. Jikimoto and K. Izumi, "Structural transformation of screw dislocations via thick 4H-SiC epitaxial growth", Japanese Journal of Applied Physics, 39, 6496, 2000.
103. H. Tsuchida, I. Kamata, K. Izumi, "Infrared attenuated total reflection spectroscopy of 6H-SiC(000-1) and (0001) surfaces", Journal of Applied Physics, 85, 3569, 1999.

104. H. Tsuchida, I. Kamata, K. Izumi, "Infrared spectroscopy of hydrides on the 6H-SiC surface", Applied Physics Letters, 70, 3072, 1997.
105. H. Tsuchida, I. Kamata, K. Izumi, "Si-H bonds on the 6H-SiC(0001) surface after H₂ annealing", Japanese Journal of Applied Physics, 36, L699, 1997.
106. H. Tsuchida, I. Kamata, K. Izumi, "Infrared analysis of SiO₂ films grown on the 6H-SiC surfaces", Applied Surface Science, 117/118, 225, 1997.
107. H. Tsuchida, I. Kamata, K. Izumi, "Chemical states of crystalline silicon carbide surfaces", Japanese Journal of Applied Physics, 34, 6003, 1995.