

研究成果発表リスト

I. 論文

1. Masumoto, Y. Persistent hole burning in semiconductor nanocrystals. *J. Lumin.* 70, 386-399 (1996).
2. Matsumoto, T.; Masumoto, Y.; Nakashima, S.; Mimura, H.; Koshida, N. Coupling effect of surface vibration and quantum confinement carriers in porous silicon. The book of abstracts of English International Conference on Solids Films and Surfaces. Thc-2, 91(1996).
3. Masumoto, Y.; Sonobe, K.; Sakakura, N. Persistent hole burning spectroscopy of semiconductor quantum dots. *Proc. 23rd International Conference on Physics of Semiconductors.* 2, 1481-1484 (1996).
4. Matsumoto, T.; Masumoto, Y.; Nakashima, S.; Mimura, H.; Koshida, N. Photoluminescence from deuterium terminated porous silicon. *Extended abstracts of 1996 International Conference on Solid State Devices and Materials.* 709-711 (1996).
5. Matsumoto, T.; Masumoto, Y.; Koshida, N. Optical Properties of deuterium terminated porous silicon. *Proc. Materials Research Society Symposium.* 452, 449-454 (1996).
6. Matsumoto, T.; Masumoto, Y.; Mimura, H. Luminescence spectral narrowing in porous silicon anodized with monochromatic light. *Proc. Materials Research Society Symposium.* 452, 535-540 (1996).
7. Ren, H.-W.; Nishi, K.; Sugou, S.; Sugisaki, M.; Masumoto, Y. Control of InAs self-assembled islands on GaAs vicinal surfaces by annealing in gas-source molecular beam epitaxy. *Jpn. J. Appl. Phys.* 36 (6B), 4118-4122 (1997).
8. Matsumoto, T.; Masumoto, Y.; Takagawara, T.; Hashimoto, M.; Ueno, K.; Koshida, N. Electroluminescence from deuterium terminated porous silicon. *Jpn. J. Appl. Phys.* 36(8B-2), L1089-L1091 (1997).
9. Matsumoto, Y.; Masumoto, T.; Nakashima, S.; Mimura, H.; Koshida, N. Coupling effect of surface vibration and quantum confinement carriers in porous silicon. *Appl. Surf. Sci.* 113/114, 140-144 (1997).
10. Matsumoto, T.; Masumoto, Y.; Koshida, N. Reduction of luminescence degradation using deuterium terminated porous silicon. *Proc. 191st Meeting of Electrochemical Society.* (1997).
11. Sugisaki, M.; Ren, H.-W.; Sugou, S.; Nishi, K.; Okuno, T.; Masumoto, T. Optical anisotropy in InP quantum dots. *Proc. Workshop on Naval Research Laboratory: Recent Advances in the Physics of Single Quantum Dots.* 32 (1997).
12. Ikezawa, M.; Masumoto, Y.; Takagahara, T.; Nair, S.V. Biexciton and triexciton states in quantum dots in the weak confinement regime. *Phys. Rev. Lett.* 79, 3522-3525 (1997).
13. Ren, H.-W.; Sugisaki, M.; Sugou, S.; Masumoto, Y. Recombination processes in InAs/GaAs self-assembled single quantum dots. *Proc. Materials Research Society 1997*

- Fall Meeting. (1997).
14. Matsumoto, T.; Masumoto, Y.; Koshida, N. Photo- and electroluminescence from deuterium terminated porous silicon. Proc. Materials Research Society 1997 Fall Meeting. 486, 181-186 (1997).
 15. Masumoto, Y.; Kawazoe, T.; Matsuura, N. Exciton-confined-phonon interaction in quantum dots. J. Lumin. 76&77, 189-192 (1998).
 16. Okuno, T.; Ren, H.-W.; Sugisaki, M.; Nishi, K.; Sugou, S.; Masumoto, Y. Time-resolved luminescence of InP quantum dots in a Ga_{0.5}In_{0.5}P matrix: Carrier injection from the matrix. Phys. Rev. B 57(3), 1386-1389 (1998).
 17. Ren, H.-W.; Nishi, K.; Sugou, S.; Masumoto, Y. Size quantization in InAs/GaAs self-assembled quantum dots grown by gas-source molecular beam epitaxy. Jpn. J. Appl. Phys. 37 (3B, Part1), 1548-1551 (1998).
 18. Ren, H.-W.; Sugisaki, M.; Sugou, S.; Nishi, K.; Masumoto, Y. Indium segregation and its influence to the quantum structures in InAs/GaAs self-assembled quantum dots. J. Surf. Analysis. 4, 350-354 (1998).
 19. Zimin, L.; Nair, S.V.; Masumoto, Y. LO phonon renormalization in optically excited CuCl nanocrystals. Phys. Rev. Lett. 80, 3105-3108 (1998).
 20. Okuno, T.; Ren, H.-W.; Sugisaki, M.; Nishi, K.; Sugou, S.; Masumoto, Y. Time-resolved luminescence study of InP quantum dots in GaInP matrix. Solid State Electron. 42, 1319-1324 (1998).
 21. Sugisaki, M.; Ren, H.; Sugou, S.; Nishi, K.; Masumoto, Y. Sharp photoluminescence lines of InAs quantum dot embedded in GaAs mesa. Solid State Electron. 42, 1325-1330 (1998).
 22. Matsumoto, T.; Kondo, M.; Nair, S.V.; Masumoto, Y. Inverted Staebler-Wronski effect in nanocrystalline silicon. J. Non-Cryst. Solids. 227-230, 320-323 (1998).
 23. Matsumoto, T.; Kondo, M.; Masumoto, Y. Reduction of neutral dangling bond density by light soaking in nanocrystalline silicon. Proc. 1998 Material Research Society Spring Meeting. 507, 747-750 (1998).
 24. Matsumoto, T.; Masumoto, Y. Electroluminescence from deuterium terminated porous silicon. Proc. International Workshop on the Deuterium and Isotope Effects in Semiconductors. (1998).
 25. Okuno, T.; Ren, H.-W.; Sugisaki, M.; Nishi, K.; Sugou, S.; Masumoto, Y. Temperature dependence of luminescence decay time of InP quantum disks. Proc. 10th International Conference on InP and Related Materials. (1998).
 26. Prabhakaran, K.; Ogino, T.; Matsumoto, T.; Masumoto, T. Multiperiod Si/SiO₂/Ge layered structure formation through chemical bond manipulation. Proc. European Materials Research Society 1998 Spring Meeting. (1998).
 27. Masumoto, Y.; Ikezawa, M. Control of the quantum dot energy by a photon: Observation of two-exciton and three-exciton states in quantum dots. Proc. Ioffe Institute 6th

- International Symposium "Nanostructures: Physics & Technology" . 183-186 (1998).
28. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Giant optical nonlinearly of hetero-structures with InP self-assembled quantum dots. Proc. Ioffe Institute 6th International Symposium "Nanostructures: Physics & Technology" . 200-203 (1998).
 29. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Observation of internal electric charge in InP self-assembled quantum dots. Proc. Ioffe Institute 6th International Symposium "Nanostructures: Physics & Technology" . 218-221 (1998).
 30. Ren, H.-W.; Sugisaki, M.; Lee, J.S.; Sugou, S.; Masumoto, Y. MOVPE growth of small and uniform InP/GaInP quantum dots. Proc. 24th International Conference on the Physics of Semiconductors. III-E-15, pdf no.1191 (1998).
 31. Sugisaki, M.; Ren, H.-W.; Nishi, K.; Sugou, S.; Okuno, T.; Masumoto, Y. Anisotropic radiative decay of InP self-assembled quantum dots. Proc. 24th International Conference on the Physics of Semiconductors. VII-B-40, pdf no.1180 (1998).
 32. Nair, S.V.; Zimin, L.; Masumoto, Y. Exciton-phonon interaction and phonon frequency shift in quantum dots. Proc. 24th International Conference on the Physics of Semiconductors. VII-B-63, pdf no.463 (1998).
 33. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Giant optical nonlinearly of heterostructures with InP self-assembled quantum dots. Proc. 24th International Conference on the Physics of Semiconductors. VII-B-58, pdf no. 1060 (1998).
 34. Ignatiev, I.; Davydov, V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Franz-Keldysh oscillations in pump-probe spectra of InP self-assembled quantum dots. Proc. 24th International Conference on the Physics of Semiconductors. VII-B-42, pdf no.1059 (1998).
 35. Matsumoto, T.; Mimura, H.; Koshida, N.; Nair, S.V.; Masumoto, Y. Deep level energy states in nanocrystalline silicon determined by space-charge-limited-current measurements. Proc. 24th International Conference on the Physics of Semiconductors. VIII-B-12, pdf no.458 (1998).
 36. Sugisaki, M.; Ren, H.-W.; Nair, S. V.; Sugou, S.; Nishi, K.; Okuno, T.; Masumoto, Y. Fine splitting in the optical spectra of InP self-assembled single quantum dot. Excitonic Processes in Condensed Matter. ed. R.T. Williams, W.M. Yen (The Electro-chemical Society Proceedings Series, Pennington, NJ. 1998) Proceedings Vol. 98-25, 298 (1998).
 37. Ren, H.-W.; Sugisaki, M.; Lee, J.S.; Sugou, S.; Masumoto. Structural and optical anisotropy in InP/GaInP quantum dots grown by MOVPE. Excitonic Processes in Condensed Matter. ed. R.T. Williams, W.M. Yen (The Electro-chemical Society Proceedings Series, Pennington, NJ. 1998) Proceedings Vol. 98-25, 292 (1998).
 38. Prabhakaran, K.; Matsumoto, T.; Ogino, T.; Masumoto, Y. Fabrication of multiperiod Si/SiO₂/Ge layered structure through chemical bond manipulation. Appl. Phys. Lett. 72, 3169-3171 (1998).
 39. Matsumoto, T.; Mimura, H.; Koshida, N.; Masumoto, Y. The density of states in silicon

- nanostructures determined by space-charge-limited current measurements. *J. Appl. Phys.* 84, 6157-6161 (1998).
40. Lee, J.S.; Ren, H.-W.; Sugou, S.; Masumoto, Y. In_{0.5}Ga_{0.5}As quantum dot intermixing and evaporation in GaAs capping layer growth. *J. Appl. Phys.* 84, 6686-6688 (1998).
 41. Sugisaki, M.; Ren, H.-W.; Nishi, K.; Sugou, S.; Okuno, T.; Masumoto, Y. Magnetic field effects in InP self-assembled quantum dots. *Physica B* 256-258, 169-172 (1998).
 42. Nair, S.V.; Masumoto, Y. Exciton-exciton and exciton-phonon complexes in semiconductor quantum dots. Proc. 5th IUMRS International Conference in Asia-IUMRS-ICA-98. (1998).
 43. Matsumoto, T.; Nair, S.V.; Masumoto, Y. Isotope energy shift of luminescence in hydrogen-and deuterium-terminated porous silicon. Proc. 5th IUMRS International Conference in Asia-IUMRS-ICA-98. (1998).
 44. Ren, H.-W.; Sugisaki, M.; Lee, J.S.; Sugou, S.; Masumoto, Y. Highly uniform and small InP/GaInP self-assembled quantum dots grown by metal-organic vapor phase epitaxy. *Jpn. J. Appl. Phys.* 38 (Part1, No.1B), 507-510 (1999).
 45. Matsumoto, T.; Mimura, H.; Koshida, N.; Masumoto, Y. Deep-level energy states in nanostructural porous silicon. *Jpn. J. Appl. Phys.* 38 (Part1, No.1B), 539-541 (1999).
 46. Masumoto, Y.; Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S. Observation of Franz-Keldysh oscillations in InP self-assembled quantum dot systems. *Jpn. J. Appl. Phys.* 38 (Part1, No.1B), 563-565 (1999).
 47. Masumoto, Y. Persistent spectral-hole-burning in semiconductor quantum dots and its application to spectroscopy. *Jpn. J. Appl. Phys.* 38 (Part1, No.1B), 570-576 (1999).
 48. Nair, S.V.; Masumoto, Y. Exciton-phonon interaction and phonon frequency renormalization in semiconductor quantum dots. *Jpn. J. Appl. Phys.* 38 (Part1, No.1B), 581-584 (1999).
 49. Matsumoto, T.; Arata, G.; Nair, S.V.; Masumoto, Y. Effect of surface termination on the electronic states in nanocrystalline porous silicon. *Jpn. J. Appl. Phys.* 38 (Part1, No.1B), 589-592 (1999).
 50. Okuno, T.; Ren, H.-W.; Sugisaki, M.; Nishi, K.; Sugou, S.; Masumoto, Y. Temperature dependence of luminescence decay time of InP quantum disks. *Jpn. J. Appl. Phys.* 38, 1094-1097 (1999).
 51. Sugisaki, M.; Ren, H.-W.; Nair, S.V.; Nishi, K.; Sugou, S.; Okuno, T.; Masumoto, Y. Optical anisotropy in self-assembled InP quantum dots. *Phys. Rev. B* 59, 5300-5303 (1999).
 52. Tokunaga, E.; Ivanov, A.L.; Nair, S.V.; Masumoto, Y. Inverse exciton series in the optical decay of an excitonic molecule. *Phys. Rev. B* 59, 7837-7840 (1999).
 53. Ren, H.-W.; Sugisaki, M.; Sugou, S.; Nishi, K.; Gomyo, A.; Masumoto, Y. Lateral composition modulation induced optical anisotropy in InP/GaInP quantum dot system. *Jpn.*

- J. Appl. Phys. 38, 2438-2441 (1999).
54. Matsumoto, T.; Qi, J.; Mimura, H.; Koshida, N.; Masumoto, Y. Determination of localized states in porous silicon. *J. Lumin.* 80, 203-206 (1999).
 55. Matsumoto, T.; Qi, J.; Mimura, H.; Koshida, N.; Masumoto, Y. Deep level energy states in porous silicon and porous silicon carbide determined by space-charge-limited current measurements. *Applied Surface Science.* 142, 569-573 (1999).
 56. Kozin, I.; Ignatiev, I.; Nair, S.V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. LO phonon mediated relaxation in InP self-assembled quantum dots in electric field. *Proc. 7th International Symposium "Nanostructures: Physics and Technology"* . 24-27 (1999).
 57. Davydov, V.; Ignatiev, I.; Kozin, I.; Lee, J.-S.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Unusual temperature behavior of the photoluminescence of InP and InGaAs quantum dots under quasiresonant excitation. *Proc. 7th International Symposium "Nanostructures: Physics and Technology"* . 46-49 (1999).
 58. Ren, H.-W.; Sugou, S.; Masumoto, Y.; Ignatiev, I.; Kozin, I. Cold anti-Stokes photoluminescence of InP self-assembled quantum dots. *Proc. 7th International Symposium "Nanostructures: Physics and Technology"* . 54-57 (1999).
 59. Dolgikh, Yu.; Eliseev, S.; Gerlovin, I.; Ovsyankin, V.; Efimov, Yu.; Ignatiev, I.; Kozin, I.; Petrov, V.; Pantukhin, V.; Masumoto, Y. Luminescence of HH-excitons in GaAs/AlGaAs superlattices under resonant excitation. *Proc. 7th International Symposium "Nanostructures: Physics and Technology"* . 412-415 (1999).
 60. Ren, H.-W.; Okuno, T.; Nishibayashi, K.; Lee, J.S.; Sugou, S.; Sugisaki, M.; Masumoto, Y. Photoluminescence of strain-induced coupled quantum dot pairs. *Proc. 1999 Electronic Materials Conference.* (1999).
 61. Lee, J.S.; Sugisaki, M.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Spontaneous one-dimensional lateral alignment of multistacked InGaAs quantum dots on GaAs (n11)B substrates. *Proc. 9th International Conference on Modulated Semiconductor Structures.* (1999).
 62. Ren, H.-W.; Okuno, T.; Nishibayashi, K.; Lee, J.S.; Sugou, S.; Masumoto, Y. Confined effect in strain-induced InGaAs/GaAs quantum dots. *Proc. 9th International Conference on Modulated Semiconductor Structures.* (1999).
 63. Tsurumachi, N.; Arakawa, M.; Nakatsuka, Y.; Abe, M.; Hattori, T.; Qi, J.; Masumoto, Y.; Nakatsuka, H. Enhancement of nonlinear optical effect in one-dimensional photonic crystals with semiconductor quantum dots. *Abstracts of 6th International Workshop on Femtosecond Technology.* 162 (1999).
 64. Takahashi, M.; Toriumi, Y.; Matsumoto, T.; Masumoto, Y.; Koshida, N. Characteristics of silicon-based optical resonators and waveguide (Fabrication of porous silicon optical devices by refractive index controllable-nature). *Technical report of IEICE. LQE 99-17, 7* (1999).

65. Lee, J.S.; Sugou, S.; Ren, H.-W.; Masumoto, Y. In-situ ellipsometric study of the formation process of metalorganic vapor-phase epitaxy-grown dots. *J. Vac. Sci. Technol. B.* 17, 1341-1345 (1999).
66. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Observation of built-in electric field in InP self-assembled quantum dot systems. *Appl. Phys. Lett.* 74, 3002-3004 (1999).
67. Qi, J.; Matsumoto, T.; Tanaka, M.; Masumoto, Y. Electroluminescence of europium silicate thin film on silicon. *Appl. Phys. Lett.* 74, 3203-3205 (1999).
68. Lee, J.S.; Sugou, S.; Masumoto, Y. Spontaneous nanostructure formation on GaAs (211)B substrate. *J. Cryst. Growth.* 205, 467-473 (1999).
69. Lee, J.S.; Sugou, S.; Masumoto, Y. Real-time observation of ellipsometry oscillation during GaAs layer by metalorganic vapor-phase epitaxy. *Jpn. J. Appl. Phys.* 38, L614-L616 (1999).
70. Lee, J.S.; Sugou, S.; Ren, H.-W.; Masumoto, Y.; Kurihara, K. In-situ monitoring of In_{0.5}Ga_{0.5}As quantum dot formation during metalorganic vapor phase epitaxy by fast-nulling ellipsometry. *Appl. Surf. Science.* 141, 114 (1999).
71. Lee, J.S.; Sugisaki, M.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Spontaneous lateral alignment of multistacked In_{0.45}Ga_{0.45}As quantum dots on GaAs(311)B substrate. *J. Cryst. Growth.* 200, 77 (1999).
72. Zhukov, E.A.; Masumoto, Y.; Muljarov, E.A.; Romanov, S.G. Pump-probe studies of photoluminescence of InP quantum wires embedded in dielectric matrix. *Solid State Commun.* 112, 575-580 (1999).
73. Satake, A.; Masumoto, Y.; Miyajima, T.; Asatsuma, T.; Ikeda, M. Two-dimensional exciton dynamics and gain formation processes in In_xGa_{1-x}N multiple quantum wells. *Phys. Rev. B.* 60, 660-666 (1999).
74. Tsurumachi, N.; Abe, M.; Arakawa, M.; Yoda, T.; Hattori, T.; Qi, J.; Masumoto, Y.; Nakatsuka, H. Time response of one-dimensional photonic crystals with a defect layer made of semiconductor quantum dots. *Jpn. J. Appl. Phys.* 38 (Part2, 12A), L1400-L1402 (1999).
75. Qi, J.; Matsumoto, T.; Tanaka, M.; Masumoto, Y. Electroluminescence from thin films of europium silicates. *Proc. 8th International Symposium on the Physics and Chemistry of Luminescent Materials.* (1999).
76. Tanaka, M.; Qi, J.; Masumoto, Y. Optical properties of undoped and Mn²⁺-doped CdS nanocrystals in polymer. *Proc. Ninth International Conference on II-VI Compounds.* (1999).
77. Tanaka, M.; Masumoto, Y. Very weak temperature quenching in orange luminescence of ZnS : Mn²⁺ nanocrystals in polymer. *Chem. Phys. Lett.* 324, 249 (2000).
78. Morishima, S.; Maruyama, T.; Tanaka, Y.; Masumoto, Y.; Akimoto, K. Growth of Eu

- doped GaN and electroluminescence from MIS structure. *Phys. Status solidi (a)*. 176, 113-117 (1999).
79. Sugisaki, M.; Ren, H.-W.; Nair, S.V.; Sugou, S.; Okuno, T.; Masumoto, Y. Imaging and single dot spectroscopy of InP self-assembled quantum dots. *J. Lumin.* 87-89, 40-45 (2000).
 80. Tokunaga, E.; Ivanov, A.L.; Nair, S.V.; Masumoto, Y. Inverse exciton series for observation of bipolariton coupling. *J. Lumin.* 87-89, 216-218 (2000).
 81. Nair, S.V.; Masumoto, Y. Coulomb effects in the optical spectra of highly excited semiconductor quantum dots. *J. Lumin.* 87-89, 438-440 (2000).
 82. Kozin, I.; Ignatiev, I.; Nair, S.V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. LO phonon resonances in photoluminescence spectra of InP self assembled quantum dots in electric field. *J. Lumin.* 87-89, 441-443 (2000).
 83. Tanaka, M.; Qi, J.; Masumoto, Y. Comparison of energy levels of Mn²⁺ in nanosized- and bulk-ZnS crystals. *J. Lumin.* 87-89, 472-474 (2000).
 84. Baranov, A.V.; Yamauchi, S.; Masumoto, Y. Softening of the LO phonon in excited state of CuCl nanocrystals. *J. Lumin.* 87-89, 500-502 (2000).
 85. Baranov, A.V.; Davydov, V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Phonon-enhanced intraband transitions in InAs self-assembled quantum dots. *J. Lumin.* 87-89, 503-505 (2000).
 86. Davydov, V. ; Ignatiev, I.; Kozin, I.; Lee, J.-S.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Unusual temperature behavior of the photoluminescence of InP and InGaAs quantum dots under quiresonant excitation. *J. Lumin.* 87-89, 522-524 (2000).
 87. Qi, J.; Tanaka, M.; Masumoto, Y. Temperature dependent luminescence of europium aggregates in NaCl . *J. Lumin.* 87-89, 1102-1104 (2000).
 88. Nair, S.V.; Masumoto, Y. Multi-exciton states in semiconductor quantum dots. *Physica Status solidi (a)* 178, 303-306 (2000).
 89. Takahashi, M.; Toriumi, Y.; Matsumoto, T.; Masumoto, Y.; Koshida, N. Significant photoinduced refractive index change observed in porous silicon Fabry Perot resonators. *Appl. Phys. Lett.* 76, 1990-1992 (2000).
 90. Lee, J.S.; Nishi, K.; Masumoto, Y. Low-index facets formation in InGaAs islands on GaAs (n11)B substrate. *Workbook of 10th International Conference on Metalorganic Vapor Phase Epitaxy.* 108-109 (2000).
 91. Lee, J.S.; Masumoto, Y. Real time monitoring of ellipsometry monolayer oscillations during metalorganic vapor-phase epitaxy. *Workbook of 10th International Conference on Metalorganic Vapor Phase Epitaxy.* 155-156 (2000).
 92. Belogorokhov, A.; Belogorokhova, L.; Masumoto, Y.; Matsumoto, T.; Zhukov, E. The effect of deuterium on the optical properties of free standing porous silicon layer. *Proc. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology.* 460-

- 463 (2000).
93. Yugova, I.; Davydov, V.; Dolgikh, Yu.; Efimov, Yu.; Eliseev, S.; Fedorov, A.; Gerlovin, I.; Ignatiev, I.; Kozin, I.; Petrov, V.; Ovsyankin, V.; Ren, H.-W.; Nishi, K.; Masumoto, Y. Spectroscopy of the high energy quantum confined excitonic states in the thick GaAs quantum wells. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology. 276-279 (2000).
 94. Davydov, V.; Fedorov, A.; Ignatiev, I.; Nair, S.V.; Lee, J.S.; Ren, H.-W.; Sugou, S.; Sugisaki, M.; Masumoto, Y. Observation of quantum beats in photoluminescence of self-assembled quantum dots. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology. 395-398 (2000).
 95. Davydov, V.; Ignatiev, I.; Kozin, I.; Nair, S.V.; Lee, J.S.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Carrier relaxation dynamics in self-assembled quantum dots. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology. 379-382 (2000).
 96. Baranov, A.; Davydov, V.; Fedorov, A.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Two-pulse coherent population of quantum states in inhomogeneous ensemble detected by the phonon-assisted resonant luminescence. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology. 367-370 (2000).
 97. Ren, H.-W.; Nair, S.V.; Okuno, T.; Nishibayashi, K.; Lee, J.S.; Sugou, S.; Masumoto, Y. Confinement effect in strain-induced InGaAs/GaAs quantum dots. *Physica E* 7, 403-407 (2000).
 98. Lee, J.S.; Sugou, S.; Masumoto, Y. Mechanism of ellipsometry monolayer oscillation during metalorganic vapor-phase epitaxy. *J. Appl. Phys.* 88, 196-200 (2000).
 99. Qi, J.; Matsumoto, T.; Tanaka, M.; Masumoto, Y. Preparation of white color electroluminescent europium silicate thin films. *Electrochem. Solid State Lett.* 3, 239-241 (2000).
 100. Tanaka, M.; Sawai, S.; Sengoku, M.; Kato, M.; Masumoto, Y. Luminescence properties of ZnS phosphor nanocrystals prepared by the laser-induced gas-evaporation method. *J. Appl. Phys.* 87, 8535-8540 (2000).
 101. Sugisaki, M.; Ren, H.-W.; Nishi, K.; Sugou, S.; Masumoto, Y. Excitons at a single localized center induced by a natural composition modulation in bulk Ga_{0.5}In_{0.5}P. *Phys. Rev. B* 61, 16040-16044 (2000).
 102. Ignatiev, I.; Kozin, I.; Nair, S.V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Carrier relaxation dynamics in InP quantum dots studied by artificial control of nonradiative losses. *Phys. Rev. B* 61, 15633-15636 (2000).
 103. Lee, J.S.; Sugisaki, M.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Spontaneous one-dimensional lateral alignment of multistacked InGaAs quantum dots on GaAs (n11)B substrates. *Physica E* 7, 303-307 (2000).
 104. Yamada, H.; Tanaka, M.; Maruyama, T.; Masumoto, Y.; Yao, T.; Akimoto, K.. Efficient

- luminescence from Sm doped ZnSSe/undoped-ZnS multi-quantum wells. *J. Cryst. Growth*, 214-215, 935-938 (2000).
105. Lee, J.S.; Sugou, S.; Masumoto, Y. In-situ observation of ellipsometry monolayer oscillations of metalorganic vapor-phase epitaxy-grown III - V compound materials. *J. Cryst. Growth*. 209, 614 (2000).
 106. Masumoto, Y.; Ignatiev, I.V.; Kozin, I.E.; Davydov, V.G.; Nair, S.V.; Ren, H.-W.; Lee, J.-S.; Sugou, S. Breakdown of the phonon bottleneck effect in self-assembled quantum dots. *Proc. Third Internatinal Symposium on Formation, Physics and Device Application of Quantum Dot Structures*. (2000).
 107. Nishibayashi, K.; Okuno, T.; Mishina, T.; Sugou, S.; Ren, H.-W.; Masumoto, Y. Optical study of strain-induced GaAs quantum dots. *Third Internatinal Symposium on Formation, Physics and Device Application of Quantum Dot Structures*. (2000).
 108. Tokunaga, E.; Ivanov, A.L.; Nair, S.V.; Masumoto, Y. Biexciton wavefunction in bulk CuCl probed by inverse polariton series. *Physica Status solidi B* 221, 000 (2000).
 109. Baranov, A.V.; Davydov, V.; Fedorov, A.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Coherent control of stress-induced InGaAs quntum dots by means of phonon-assisted resonant photoluminescence. *Physica Status solidi*. *in press*.
 110. Sugisaki, M.; Ren, H.-W.; Osad' ko, I.; Nishi, K.; Masumoto, Y. Origin of the fluorescence intermittency in InP self-assembled quantum dots. *Physica Status solidi*. *in press*.
 111. Nair, S.V.; Masumoto, Y. Multi-exciton states and many-body correlations in quantum dots. *Physica Status solidi*. *in press*.
 112. Davydov, V.; Ignatiev, I.; Kozin, I.; Nair, S.V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Carrier relaxation dynamics in self-assembled quantum dots studied by artificial control of nonradiative losses. *Physica Status solidi*. *in press*.
 113. Miyajima, T.; Hino, T.; Tomiya, S.; Satake, A.; Tokunaga, E.; Masumoto, Y.; Maruyama, T.; Ikeya, M.; Morishita, S.; Akimoto, K.; Yanashima, K.; Hashimoto, S.; Kobayashi, T.; Ikeda, M. Non-radiative nature of threading dislocations in GaN grown by metal-organic chemical vapor deposition. *Jpn. J. Appl. Phys.* *in press*.
 114. Muljarov, E.A.; Zhukov, V.S.; Dneprovskii, V.S.; Masumoto, Y. Dielectrically enhanced exciots in semiconductots-insulator quantum wires : Theory and experiment. *Phys. Rev. B*. *in press*.
 115. Tanaka, M.; Qi, J.; Masumoto, Y. Optical properties of undoped and Mn+2 doped nanocrystals in polymer. *J. Cryst. Growth*. *in press*.
 116. Sugisaki, M.; Ren, H.-W.; Nishi, K.; Masumoto, Y. Excitons in InP self-assembled quantum dots:Imaging and single dot spectroscopy. *Phys. Rev. B*. *submitted*.
 117. Zhao, J.; Nair, S.V.; Masumoto, Y. Exciton-phonon coupled states in CuCl quantum cubes. *Phys. Rev. B*. *submitted*.

118. Ignatiev, I.; Kozin, I.; Davydov, V.; Nair, S.V.; Lee, J.S.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Phonon resonances in photoluminescence spectra of self-assembled quantum dots in electric field. *Phys. Rev. B. submitted.*
119. Ignatiev, I.; Kozin, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Anti-Stokes photoluminescence of InP self-assembled quantum dots in the presence of electric current. *Phys. Rev. B. submitted.*
120. Ren, H.-W.; Nair, S.V.; Lee, J.-S.; Sugou, S.; Masumoto, Y. Photoluminescence of strain induced coupled InGaAs/GaAs quantum dot-pairs. *J. electronic Materials. submitted.*
121. Qi, J.; Matsumoto, T.; Masumoto, Y. Fabrication of silicon oxide wires. *Appl. Phys. Lett. submitted.*
122. Qi, J.; Matsumoto, T.; Tanaka, M.; Masumoto, Y. Europium silicate thin films on Si substrates fabricated by radio frequency sputtering method. *J. Phys. D. submitted.*
123. Sugisaki, M.; Ren, H.-W.; Nishi, K.; Masumoto, Y. Origin of fluorescence intermittency in self-assembled InP quantum dots. *Phys. Rev. Lett. submitted.*
124. Tanaka, M.; Qi, J.; Masumoto, Y. Electronic level structure of Mn⁺² doped into CdS nanocrystals. *Phys. Rev. B. submitted.*
125. Tanaka, M.; Qi, J.; Masumoto, Y. Luminescence properties and excitation mechanism of Mn⁺² doped into CdS nanocrystals. *Physica E. submitted.*
126. Qi, J.; Guo, X.; Sakurai, K.; Tanaka, M.; Masumoto, Y. Local structures around Mn ions in ZnS:Mn nanocrystals. *J. Synchrotron Radiation (The 11th International Conference on X-ray Absorption Fine Structure. Aiko, Japan, July 2000). submitted.*
127. Qi, J.; Guo, X.; Sakurai, K.; Tanaka, M.; Masumoto, Y. Atomic structure around Mn ions in Zn_{1-x}Mn_xS nanocrystals prepared by colloidal chemistry procedure. *Scripta Materialia (Elsevier Science). submitted.*

II. 学会発表

1. Matsumoto, T.; Masumoto, Y.; Nakashima, S.; Mimura, H.; Koshida, N. Coupling effect of surface vibration and quantum confinement carriers in porous silicon. *International Conference on Solids Films and Surfaces, Toyonaka, Japan, July 1996.*
2. Masumoto, Y.; Sonobe, K.; Sakakura, N. Persistent hole burning spectroscopy of semiconductor quantum dots. *23rd International Conference on Physics of Semiconductors, Berlin, Germany, Aug. 1996.*
3. Matsumoto, T.; Masumoto, Y.; Nakashima, S.; Mimura, H.; Koshida, N. Photoluminescence from deuterium terminated porous silicon. *1996 International Conference on Solid State Devices and Materials, Yokohama, Japan, Aug. 1996.*
4. Ren, H.-W.; Nishi, K.; Sugou, S.; Sugisaki, M.; Masumoto, Y. The effect of annealing on the self-assembled InAs and InP islands in molecular beam epitaxy. *International Symposium on Formation, Physics and Device Application of Quantum Dot Structures,*

- Sapporo, Japan, Nov. 1996.
5. Matsumoto, T.; Masumoto, Y.; Koshida, N. Optical Properties of deuterium terminated porous silicon. Materials Research Society Symposium, Boston, USA, Dec. 1996.
 6. Matsumoto, T.; Masumoto, Y.; Mimura, H. Luminescence spectral narrowing in poroussilicon anodized with monochromatic light. Materials Research Society Symposium, Boston, USA, Dec. 1996.
 7. Matsumoto, T.; Masumoto, Y.; Koshida, N. Reduction of luminescence degradation using deuterium terminated porous silicon. 191st Meeting of Electrochemical Society, Montreal, Canada, May 1997.
 8. Sugisaki, M.; Ren, H.-W.; Sugou, S.; Nishi, K.; Okuno, T.; Masumoto, T. Optical anisotropy in InP quantum dots. Workshop on Naval Research Laboratory: Recent Advances in the Physics of Single Quantum Dots, Washington D.C., USA, July 1997.
 9. Masumoto, T.; Kawazoe, T.; Matsuura, N. Exciton-confined-phonon interaction in quantum dots. The 11th International Conference on Dynamical Processes in Excited States of Solids, Mittelberg, Germany, July 1997.
 10. Matsumoto, T.; Kondo, M.; Nair, S.V.; Masumoto, Y. Inverted Staebler-Wronski effect in nanocrystalline silicon. International Conference on Amorphous and Microcrystalline Semiconductors, Budapest, Hungary, Aug. 1997.
 11. Ren, H.-W.; Nishi, K.; Sugou, S.; Masumoto, Y. Size quantization in InAs/GaAs self-assembled quantum dots grown by gas-source molecular beam epitaxy. International Conference on Solid State Devices and Materials, Hamamatsu, Japan, Sep. 1997.
 12. Ren, H.-W.; Sugisaki, M.; Sugou, S.; Masumoto, Y. Recombination processes in InAs/GaAs self-assembled single quantum dots. Materials Research Society 1997 Fall Meeting, Boston, USA, Dec. 1997.
 13. Matsumoto, T.; Masumoto, Y.; Koshida, N. Photo- and electroluminescence from deuterium terminated porous silicon. Materials Research Society 1997 Fall Meeting, Boston, USA, Dec. 1997.
 14. Ren, H.-W.; Sugisaki, M.; Sugou, S.; Nishi, K.; Masumoto, Y. Indium segregation and its influence to the quantum structures in InAs/GaAs self-assembled quantum dots. The Third International Symposium on Advanced Physical Field (APF-3), Tsukuba, Japan, Dec. 1998.
 15. Matsumoto, T.; Kondo, M.; Masumoto, Y. Reduction of neutral dangling bond density by light soaking in nanocrystalline silicon. 1998 Material Research Society Spring Meeting, San Francisco, USA, April 1998.
 16. Matsumoto, T.; Masumoto, Y. Electroluminescence from deuterium terminated porous silicon. International Workshop on the Deuterium and Isotope Effects in Semiconductors, Urbana, USA, April 1998.
 17. Okuno, T.; Ren, H.-W.; Sugisaki, M.; Nishi, K.; Sugou, S.; Masumoto, Y. Temperature

- dependence of luminescence decay time of InP quantum disks. 10th International Conference on InP and Related Materials, Tsukuba, Japan, May 1998.
18. Ren, H.-W.; Sugisaki, M.; Lee, J.S.; Sugou, S.; Masumoto, Y. Uniform and small size InP/GaInP self-assembled quantum dots grown by MOVPE. 2nd International Symposium on Formation Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, May 1998.
 19. Matsumoto, T.; Arata, G.; Nair, S.V.; Masumoto, Y. Effect of surface termination on the electric states in nanocrystalline silicon. 2nd International Symposium on Formation Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, May 1998.
 20. Matsumoto, T.; Mimura, H.; Nair, S.V.; Koshida, N.; Masumoto, Y. Deep level energy states in nanocrystalline silicon determined by space-charge-limited-current measurements. 2nd International Symposium on Formation Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, May 1998.
 21. Nair, S.V.; Masumoto, Y. Exciton-phonon interaction and phonon frequency renormalization in semiconductor quantum dots. 2nd International Symposium on Formation Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, May 1998.
 22. Masumoto, Y. Persistent spectral-hole-burning in semiconductor quantum dots and its application to spectroscopy. 2nd International Symposium on Formation Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, May 1998.
 23. Masumoto, Y.; Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S. Observation of Franz-Keldysh oscillations in InP self-assembled quantum dot systems. 2nd International Symposium on Formation Physics and Device Application of Quantum Dot Structures, Sapporo, Japan, May 1998.
 24. Prabhakaran, K.; Ogino, T.; Matsumoto, T.; Masumoto, T. Multiperiod Si/SiO₂/Ge layered structure formation through chemical bond manipulation. European Materials Research Society 1998 Spring Meeting, Strasbourg, France, June 1998.
 25. Masumoto, Y.; Ikezawa, M. Control of the quantum dot energy by a photon: Observation of two-exciton and three-exciton states in quantum dots. Ioffe Institute 6th International Symposium "Nanostructures: Physics & Technology", St. Petersburg, Russia, June 1998.
 26. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Giant optical nonlinearity of hetero-structures with InP self-assembled quantum dots. Ioffe Institute 6th International Symposium "Nanostructures: Physics & Technology", St. Petersburg, Russia, June 1998.
 27. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Observation of internal electric charge in InP self-assembled quantum dots. Ioffe Institute 6th International Symposium "Nanostructures: Physics & Technology", St. Petersburg, Russia, June 1998.

- 1998.
28. Ren, H.-W.; Sugisaki, M.; Lee, J.S.; Sugou, S.; Masumoto, Y. MOVPE growth of small and uniform InP/GaInP quantum dots. The 24th International Conference on the Physics of Semiconductors, Jerusalem, Israel, Aug. 1998.
 29. Sugisaki, M.; Ren, H.-W.; Nishi, K.; Sugou, S.; Okuno, T.; Masumoto, Y. Anisotropic radiative decay of InP self-assembled quantum dots. The 24th International Conference on the Physics of Semiconductors, Jerusalem, Israel, Aug. 1998.
 30. Nair, S.V.; Zimin, L.; Masumoto, Y. Exciton-phonon interaction and phonon frequency shift in quantum dots. The 24th International Conference on the Physics of Semiconductors, Jerusalem, Israel, Aug. 1998.
 31. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Giant optical nonlinearity of heterostructures with InP self-assembled quantum dots. The 24th International Conference on the Physics of Semiconductors, Jerusalem, Israel, Aug. 1998.
 32. Ignatiev, I.; Davydov, V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Franz-Keldysh oscillations in pump-probe spectra of InP self-assembled quantum dots. The 24th International Conference on the Physics of Semiconductors, Jerusalem, Israel, Aug. 1998.
 33. Matsumoto, T.; Mimura, H.; Koshida, N.; Nair, S.V.; Masumoto, Y. Deep level energy states in nanocrystalline silicon determined by space-charge-limited-current measurements. The 24th International Conference on the Physics of Semiconductors, Jerusalem, Israel, Aug. 1998.
 34. Sugisaki, M.; Ren, H.-W.; Nishi, K.; Sugou, S.; Okuno, T.; Masumoto, Y. Magnetic field effects in self-assembled quantum dots. 13th International Conference on High Magnetic Fields in semiconductor Physics, Nijmegen, Netherlands, Aug. 1998.
 35. Ren, H.-W.; Sugisaki, M.; Sugou, S.; Nishi, K.; Gomyo, A.; Masumoto, Y. Lateral composition modulation induced structural anisotropy in InP/GaInP quantum dot system. 1998 International Conference on Solid State Devices and Materials, Hiroshima, Japan, Sep. 1998.
 36. Nair, S.V.; Masumoto, Y. Exciton-exciton and exciton-phonon complexes in semiconductor quantum dots. The 5th IUMRS International Conference in Asia-IUMRS-ICA-98, Bangalore, India, Oct. 1998.
 37. Matsumoto, T.; Nair, S.V.; Masumoto, Y. Isotope energy shift of luminescence in hydrogen-and deuterium-terminated porous silicon. The 5th IUMRS International Conference in Asia-IUMRS-ICA-98, Bangalore, India, Oct. 1998.
 38. Sugisaki, M.; Ren, H.-W.; Nair, S. V.; Sugou, S.; Nishi, K.; Okuno, T.; Masumoto, Y. Fine splitting in the optical spectra of InP self-assembled single quantum dot. 3rd International Conference of Excitonic Processes in Condensed Matter/5th International Symposium on Quantum Confinement, Boston, USA, Nov. 1998.
 39. Ren, H.-W.; Sugisaki, M.; Lee, J.S.; Sugou, S.; Masumoto. Structural and optical

- anisotropy in InP/GaInP quantum dots grown by MOVPE. 3rd International Conference of Excitonic Processes in Condensed Matter/5th International Symposium on Quantum Confinement, Boston, USA, Nov. 1998.
40. Kozin, I.; Ignatiev, I.; Nair, S.V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. LO phonon mediated relaxation in InP self-assembled quantum dots in electric field. 7th International Symposium “Nanostructures: Physics and Technology” , St. Petersburg, Russia, June 1999.
 41. Davydov, V.; Ignatiev, I.; Kozin, I.; Lee, J.-S.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Unusual temperature behavior of the photoluminescence of InP and InGaAs quantum dots under quasiresonant excitation. 7th International Symposium “Nanostructures: Physics and Technology” , St. Petersburg, Russia, June 1999.
 42. Ren, H.-W.; Sugou, S.; Masumoto, Y.; Ignatiev, I.; Kozin, I. Cold anti-Stokes photoluminescence of InP self-assembled quantum dots. 7th International Symposium “Nanostructures: Physics and Technology” , St. Petersburg, Russia, June 1999.
 43. Dolgikh, Yu.; Eliseev, S.; Gerlovin, I.; Ovsyankin, V.; Efimov, Yu.; Ignatiev, I.; Kozin, I.; Petrov, V.; Pantukhin, V.; Masumoto, Y. Luminescence of HH-excitons in GaAs/AlGaAs superlattices under resonant excitation. 7th International Symposium “Nanostructures: Physics and Technology” , St. Petersburg, Russia, June 1999.
 44. Ren, H.-W.; Okuno, T.; Nishibayashi, K.; Lee, J.S.; Sugou, S.; Sugisaki, M.; Masumoto, Y. Photoluminescence of strain-induced coupled quantum dot pairs. 1999 Electronic Materials Conference, University of California, Santa Barbara, USA, July 1999.
 45. Lee, J.S.; Sugisaki, M.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Spontaneous one-dimensional lateral alignment of multistacked InGaAs quantum dots on GaAs (n11)B substrates. The 9th International Conference on Modulated Semiconductor Structures, Fukuoka, Japan, July 1999.
 46. Ren, H.-W.; Okuno, T.; Nishibayashi, K.; Lee, J.S.; Sugou, S.; Masumoto, Y. Confined effect in strain-induced InGaAs/GaAs quantum dots. The 9th International Conference on Modulated Semiconductor Structures, Fukuoka, Japan, July 1999.
 47. Tsurumachi, N.; Arakawa, M.; Nakatsuka, Y.; Abe, M.; Hattori, T.; Qi, J.; Masumoto, Y.; Nakatsuka, H. Enhancement of nonlinear optical effect in one-dimensional photonic crystals with semiconductor quantum dots. The 6th International Workshop on Femtosecond Technology, Makuhari, Japan, July 1999.
 48. Sugisaki, M.; Ren, H.-W.; Nair, S. V.; Lee, J.S.; Sugou, S.; Okuno, T.; Masumoto, Y. Excitons in InP self-assembled quantum dots – imaging and single dot spectroscopy –. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter(ICL'99), Osaka, Japan, Aug. 1999.
 49. Qi, J.; Matsumoto, T.; Tanaka, M.; Masumoto, Y. White color electro-luminescence of europium silicate thin film. 1999 International Conference on Luminescence and Optical

- Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
50. Qi, J.; Tanaka, M.; Masumoto, Y. Temperature dependent luminescence of europium aggregates in NaCl. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 51. Tokunaga, E.; Ivanov, A.L.; Nair, S.V.; Masumoto, Y. Inverse exciton series for observation of bipolariton coupling. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 52. Baranov, A.V.; Davydov, V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Phonon-enhanced intraband transitions in InAs self-assembled quantum dots. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 53. Davydov, V.; Ignatiev, I.; Kozin, I.; Lee, J.-S.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Unusual temperature behavior of the photoluminescence of InP and InGaAs quantum dots under quasisonant excitation. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 54. Baranov, A.V.; Yamauchi, S.; Masumoto, Y. Softening of the LO phonon in excited state of CuCl nanocrystals. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 55. Nair, S.V.; Masumoto, Y. Coulomb effects in the optical spectra of highly excited semiconductor quantum dots. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 56. Kozin, I.; Ignatiev, I.; Nair, S.V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. LO phonon resonances in photoluminescence spectra of InP self assembled quantum dots in electric field. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 57. Ignatiev, I.; Kozin, I.; Nair, S.V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Photo- and electric-current-induced anti-Stokes photoluminescence of InP self assembled quantum dots. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 58. Tanaka, M.; Qi, J.; Masumoto, Y. Comparison of energy levels of Mn²⁺ in nanosized- and bulk-ZnS crystals. 1999 International Conference on Luminescence and Optical Spectroscopy of Condensed Matter (ICL'99), Osaka, Japan, Aug. 1999.
 59. Nair, S.; Masumoto, Y. Multi-exciton states in semiconductor quantum dots. Optics of Exceptions in Confined Systems 1999, Ascona, Switzerland, Sep. 1999.
 60. Qi, J.; Matsumoto, T.; Tanaka, M.; Masumoto, Y. Electroluminescence from thin films of europium silicates. 8th International Symposium on the Physics and Chemistry of Luminescent Materials, Honolulu, Hawaii, Oct. 1999.

61. Tanaka, M.; Qi, J.; Masumoto, Y. Optical properties of undoped and Mn²⁺-doped CdS nanocrystals in polymer. Ninth International Conference on II-VI Compounds, Kyoto (Kyoto International Conference Hall), Nov. 1999.
62. Tokunaga, E.; Ivanov, A.L.; Nair, S.V.; Masumoto, Y. Biexciton wavefunction tested by inverse polariton series. Nonlinear optics and excitation kinetics in semiconductors (NOEKS), Marburg(Philipps University of Marburg), Germany, April 2000.
63. Lee, J.S.; Masumoto, Y. In situ observation of ellipsometry monolayer apor-phase epitaxy. The SOTAPOCS Symposium of the 197th Meeting of the Electrochemical Society. Toronto, Canada, May 2000.
64. Ren, H.-W.; Masumoto, Y. Electron coupling in InGaAs/GaAs quantum dot-pairs fabricated with InP island stressors. Twelfth Internatinal Conference on Indium Phosphide and Related Materials. Williamsburg, Virginia, May 2000.
65. Lee, J.S.; Masumoto, Y. Real time monitoring of ellipsometry monolayer oscillations during metalorganic vapor-phase epitaxy. The Tenth International Conference on Metalorganic Vapor Phase Epitaxy, Sapporo(Hokkaido University), June 2000.
66. Lee, J.S.; Nishi, K.; Masumoto, Y. Low-index facets formation in InGaAs islands on GaAs (n11)B substrate. The Tenth International Conference on Metalorganic Vapor Phase Epitaxy, Sapporo(Hokkaido University), June 2000.
67. Belogorokhov, A.; Belogorokhova, L.; Masumoto, Y.; Matsumoto, T.; Zhukov, E. The effect of deuterium on the optical properties of free standing porous silicon layer. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology. St. Petersburg, Russia, June 2000.
68. Yugova, I.; Davydov, V.; Dolgikh, Yu.; Efimov, Yu.; Eliseev, S.; Fedorov, A.; Gerlovin, I.; Ignatiev, I.; Kozin, I.; Petrov, V.; Ovsyankin, V.; Ren, H.-W.; Nishi, K.; Masumoto, Y. Spectroscopy of the high energy quantum confined excitonic states in the thick GaAs quantum wells. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology. St. Petersburg, Russia, June 2000.
69. Davydov, V.; Fedorov, A.; Ignatiev, I.; Nair, S.V.; Lee, J.S.; Ren, H.-W.; Sugou, S.; Sugisaki, M.; Masumoto, Y. Observation of quantum beats in photoluminescence of self-assembled quantum dots. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology. St. Petersburg, Russia, June 2000.
70. Davydov, V.; Ignatiev, I.; Kozin, I.; Nair, S.V.; Lee, J.S.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Carrier relaxation dynamics in self-assembled quantum dots. Ioffe Institute 8th International Symposium on Nanocrystal Physics and Technology. St. Petersburg, Russia, June 2000.
71. Baranov, A.; Davydov, V.; Fedorov, A.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Two-pulse coherent population of quantum states in inhomogeneous ensemble detected by the phonon-assisted resonant luminescence. Ioffe Institute 8th International Symposium on

- Nanocrystal Physics and Technology. St. Petersburg, Russia, June 2000.
72. Sugisaki, M.; Ren, H.-W.; Osad'ko, I.; Nishi, K.; Masumoto, Y. Origin of the fluorescence intermittency in InP self-assembled quantum dots. International Conference on Semiconductor Quantum Dots (QD 2000). Munich, Germany, July 2000.
 73. Baranov, A.V.; Davydov, V.; Fedorov, A.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Coherent control of stress-induced InGaAs quantum dots by means of phonon-assisted resonant photoluminescence. International Conference on Semiconductor Quantum Dots (QD 2000). Munich, Germany, July 2000.
 74. Nair, S.V.; Masumoto, Y. Multi-exciton states and many-body correlations in quantum dots. International Conference on Semiconductor Quantum Dots (QD 2000). Munich, Germany, July 2000.
 75. Davydov, V.; Ignatiev, I.; Kozin, I.; Nair, S.V.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Carrier relaxation dynamics in self-assembled quantum dots studied by artificial control of nonradiative losses. International Conference on Semiconductor Quantum Dots (QD 2000). Munich, Germany, July 2000.
 76. Qi, J.; Guo, X.; Sakurai, K.; Tanaka, M.; Masumoto, Y. Local structures around Mn ions in ZnS:Mn nanocrystals. The 11th International Conference on X-ray Absorption Fine Structure. Aiko, Japan, July 2000.
 77. Kozin, I.; Davydov, V.; Dolgikh, Yu.; Efimov, Yu.; Eliseev, S.; Fedorov, A.; Gerlovin, I.; Ignatiev, I.; Petrov, V.; Ovsyankin, V.; Yugova, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Evidence of the high energy excitonic states in the spectra of thick GaAs quantum wells. 2000 International Conference on Excitonic Processes in Condensed Matter. Osaka, Japan, Aug. 2000.
 78. Dolgikh, Yu.; Eliseev, S.; Gerlovin, I.; Ovsyankin, V.; Efimov, Yu.; Ignatiev, I.; Kozin, I.; Petrov, V.; Pantukhin, V.; Masumoto, Y. Polarization dynamics of HH-exciton resonance photoluminescence in the GaAs/AlGaAs superlattices. 2000 International Conference on Excitonic Processes in Condensed Matter. Osaka, Japan, Aug. 2000.
 79. Qi, J.; Guo, X.; Sakurai, K.; Tanaka, M.; Masumoto, Y. Atomic structure around Mn ions in $Zn_{1-x}Mn_xS$ nanocrystals prepared by colloidal chemistry procedure. Fifth International Conference on Nanostructured Materials (Nano 2000). Sendai, Japan, Aug. 2000.
 80. Masumoto, Y.; Ignatiev, I.V.; Kozin, I.E.; Davydov, V.G.; Nair, S.V.; Ren, H.-W.; Lee, J.-S.; Sugou, S. Breakdown of the phonon bottleneck effect in self-assembled quantum dots. Third International Symposium on Formation, Physics and Device Application of Quantum Dot Structures. Sapporo, Japan, Sep. 2000.
 81. Nishibayashi, K.; Okuno, T.; Mishina, T.; Sugou, S.; Ren, H.-W.; Masumoto, Y. Optical study of strain-induced GaAs quantum dots. Third International Symposium on Formation, Physics and Device Application of Quantum Dot Structures. Sapporo, Japan, Sep. 2000.
 82. 松本貴裕; 徳永英司; 杉崎 満; 田中正規; 湯浅図南雄; 舛本泰章; 越田信義. 化成した

- ポーラスシリコンの発光. 第57回応用物理学会学術講演会, 福岡市 (九州産業大学), Sep. 7-10, 1996.
83. 田中正規; 松本貴裕; 舛本泰章; 澤井真也; 仙石昌也; 加藤 学. ZnS:Cu, Alナノ結晶のドナー・アクセプター対発光. 第57回応用物理学会学術講演会, 福岡市 (九州産業大学), Sep. 7-10, 1996.
 84. 徳永英司; 松本貴裕; 杉崎 満; 田中正規; 舛本泰章; 馬場基芳. CuClの2S励起子の発光測定. 日本物理学会1996年秋の分科会, 山口市 (山口大学), Sep. 30-Oct. 4, 1996.
 85. 徳永英司; 馬場基芳; 栗原一嘉; 松岡正浩. CuClの上枝ポラリトン分散の決定. 日本物理学会1996年秋の分科会, 山口市 (山口大学), Sep. 30-Oct. 4, 1996.
 86. 杉崎 満; 任 紅文; 松本貴裕; 徳永英司; 田中正規; 松浦直紀; 西 研一; 菅生繁男; 舛本泰章. InP量子点の作製と光学特性. 日本物理学会1996年秋の分科会, 山口市 (山口大学), Sep. 30-Oct. 4, 1996.
 87. 杉崎 満; 任 紅文; 松本貴裕; 徳永英司; 田中正規; ナイア, S.V.; 西 研一; 菅生繁男; 舛本泰章. InP量子点における共鳴二次発光. 日本物理学会第52回年回, 名古屋市 (名城大学), March 27-31, 1997.
 88. ナイア, S.V.; 高河原俊秀; 白石賢二. シリコンクラスターにおける励起子の第一原理計算. 日本物理学会第52回年回, 名古屋市 (名城大学), March 27-31, 1997.
 89. 徳永英司; 松本貴裕; 杉崎 満; 田中正規; 松浦直紀; ナイア, S.V.; 舛本泰章. CuCl高次励起子の発光測定. 日本物理学会第52回年回, 名古屋市 (名城大学), March 27-31, 1997.
 90. 任 紅文; 西 研一; 菅生繁男; 杉崎 満; 舛本泰章. GS-MBE成長InAs/GaAs自己形成量子点のアニール効果. 第44回応用物理学関係連合講演会, 船橋市 (日本大学), March 28-31, 1997.
 91. 松本貴裕; 徳永英司; 杉崎 満; 田中正規; 舛本泰章; 荒田 剛; 越田信義. 重水素終端したポーラスシリコンの光学的性質. 第44回応用物理学関係連合講演会, 船橋市 (日本大学), March 28-31, 1997.
 92. 田中正規; 徳永英司; 松本貴裕; 杉崎 満; ナイア, S.V.; 舛本泰章; 澤井真也; 仙石昌也; 加藤 学. ZnS系蛍光体のナノ結晶の作製と光学特性. 第44回応用物理学関係連合講演会, 船橋市 (日本大学), March 28-31, 1997.
 93. 奥野剛史; 任 紅文; 杉崎 満; 西 研一; 菅生繁男; 舛本泰章. InP量子点の発光の時間分解分光「マトリックスからのキャリア流入」. 第44回応用物理学関係連合講演会, 船橋市 (日本大学), March 28-31, 1997.
 94. 舛本泰章. 単光子による量子ドットのエネルギー制御. 第58回応用物理学会学術講演会, 秋田市 (秋田大学), Oct. 2-5, 1997.
 95. 松本貴裕; 近藤道雄; 舛本泰章. ポーラスシリコンにおける発光強度と中性欠陥密度の負の相関. 第58回応用物理学会学術講演会, 秋田市 (秋田大学), Oct. 2-5, 1997.
 96. 松本貴裕; 舛本泰章; 中川孝史; 越田信義. 重水素終端したポーラスシリコンの電氣的・光学的性質. 第58回応用物理学会学術講演会, 秋田市 (秋田大学), Oct. 2-5,

- 1997.
97. 任 紅文; 杉崎 満; 菅生繁男; 西 研一; 舛本泰章. InAs/GaAs 自己形成単一量子点のPL発光. 第58回応用物理学会学術講演会, 秋田市 (秋田大学), Oct. 2-5, -1997.
 98. 田中正規; 戚 継発; 徳永英司; 松本貴裕; 杉崎 満; 舛本泰章. ポリマー中のZnS:Mn ナノ結晶の光学特性. 第58回応用物理学会学術講演会, 秋田市 (秋田大学), Oct. 2-5, -1997.
 99. 奥野剛史; 任 紅文; 杉崎 満; 西 研一; 菅生繁男; 舛本泰章. GaInP マトリックス中InP量子点の発光の時間分解. 第58回応用物理学会学術講演会, 秋田市 (秋田大学), Oct. 2-5, 1997.
 100. 杉崎 満; 任 紅文; 松本貴裕; 徳永英司; 田中正規; 西 研一; 菅生繁男; 奥野剛史; 舛本泰章. InP 量子点における光学異方性. 日本物理学会1997年秋の分科会, 神戸市 (神戸大学), Oct. 5-8, 1997.
 101. 徳永英司; Davydov, V.G.; 杉崎 満; Nair, S.V.; 任 紅文; 西 研一; 菅生繁男; 舛本泰章. InP量子点の2波長ポンプ・プローブ分光. 日本物理学会1997年秋の分科会, 神戸市 (神戸大学), Oct. 5-8, 1997.
 102. 徳永英司; 松本貴裕; 杉崎 満; 田中正規; 松浦直紀; ナイア, S.V.; イワノフ, A.L.; 舛本泰章. CuCl 励起分子の励起子逆系列発光. 日本物理学会1997年秋の分科会, 神戸市 (神戸大学), Oct. 5-8, 1997.
 103. Nair, S.V.; 舛本泰章. Phonon frequency shift by coupling to excitons in semiconductor quantum dots. 日本物理学会1997年秋の分科会, 神戸市 (神戸大学), Oct. 5-8, 1997.
 104. Davydov, V.; Ignatiev, I.; Masumoto, Y. Energy transfer observation in self-assembled quantum dots. 日本物理学会1997年秋の分科会, 神戸市 (神戸大学), Oct. 5-8, 1997.
 105. 松本貴裕; 舛本泰章; 三村秀典. 重水素終端によるポーラスシリコンの安定化. 電子情報通信学会 電子デバイス研究会, 福岡市 (九州工業大学), Dec. 11, 1998.
 106. 戚 継発; 奥野剛史; 舛本泰章. Resonant Raman spectroscopy study of CdS:Mn nanocrystals. 光物性研究会'97, 大阪市 (大阪市立大学), Nov. 28, 1997.
 107. 任 紅文; 李 定植; 菅生繁男; 舛本泰章. TBPを用いたMOVPEによるInP/GaInP 自己形成量子点のサイズ低減. 第45回応用物理学関係連合講演会, 八王子市 (東京工科大学), March 28-31, 1998.
 108. 齊藤英彰; 西 研一; 李 定植; 菅生繁男. GaAs 基板上InAs 自己形成量子ドットの高強度・狭線幅1.3 μm 発光. 第45回応用物理学関係連合講演会, 八王子市 (東京工科大学), March 28-31, 1998.
 109. 李 定植; 任 紅文; 菅生繁男; 舛本泰章. エリプソメトリ法によるInGaAs/GaAs 量子ドット成長のその場観察. 第45回応用物理学関係連合講演会, 八王子市 (東京工科大学), March 28-31, 1998.
 110. 松本貴裕; 舛本泰章; 三村秀典; 越田信義. 空間電荷制限電流法によるポーラスシリコンのギャップ内準位の測定. 第45回応用物理学関係連合講演会, 八王子市 (東京工科大学), March 28-31, 1998.

111. 戚 継発; 松本貴裕; 田中正規; 舛本泰章. Eu ドープシリコン微粒子からの緑色発光. 第45回応用物理学関係連合講演会, 八王子市 (東京工科大学), March 28-31, 1998.
112. 杉崎 満; 任 紅文; 徳永英司; 西 研一; 菅生繁男; 奥野剛史; 舛本泰章. InP 量子点における光学異方性-時間分解スペクトル. 第45回応用物理学関係連合講演会 (八王子市, 東京工科大学), March 28-31, 1998.
113. 奥野剛史; 任 紅文; 杉崎 満; 西 研一; 菅生繁男; 舛本泰章. InP 量子点の発光寿命の温度特性 第45回応用物理学関係連合講演会 (八王子市, 東京工科大学), March 28-31, 1998.
114. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. On the nature of carrier traps in InP quantum dots. 第45回応用物理学関係連合講演会, 八王子市 (東京工科大学), March 28-31, 1998.
115. 松浦直紀; 田中正規; ナイア, S.V.; 舛本泰章. 量子ドット中ドナーの電子状態と光学特性. 日本物理学会第53回年回, 船橋市 (日本大学), March 29-April 4, 1998.
116. 戚 継発; 松本貴裕; 田中正規; 舛本泰章. Si ナノクリスタルにおける発光分光研究. 日本物理学会第53回年会, 船橋市 (日本大学), March 29-April 4, 1998.
117. 杉崎 満; 任 紅文; 徳永英司; 菅生繁男; 奥野剛史; 舛本泰章. 自己形成型量子点における磁場効果. 日本物理学会第53回年回, 船橋市 (日本大学), March 29-April 4, 1998.
118. Nair, S.V.; 舛本泰章. Lattice dynamics of semiconductor nanocrystals. 日本物理学会第53回年会, 船橋市 (日本大学), March 29-April 4, 1998.
119. 徳永英司; イワノフ, A.L.; ナイア, S.V.; 舛本泰章. CuCl 励起子逆系列発光による励起子分子波動関数の決定. 日本物理学会第53回年回, 船橋市 (日本大学), March 29-April 4, 1998.
120. Davydov, V.; Ignatiev, I.; Ren, H.-W.; Sugou, S.; Masumoto, Y. Electric charge of self-assembled InP quantum dots detected by Franz-Keldysh oscillations. 日本物理学会第53回年回, 船橋市 (日本大学), March 29-April 4, 1999.
121. 李 定植; 任 紅文; 菅生繁男; 舛本泰章. (n11)B基板上MOVPE成長InGaAs量子ドットの1次元配列制御. 第59回応用物理学学会学術講演会, 東広島市 (広島大学), Sep. 15-18, 1998.
122. 西 研一; 斎藤英彰; 李 定植; 菅生繁男. 高均一InAs 歪緩和量子ドットからの狭線幅(21meV) 室温PL発光. 第59回応用物理学学会学術講演会, 東広島市 (広島大学), Sep. 15-18, 1998.
123. 田中正規; 戚 継発; 舛本泰章. ポリマー中ZnS:Mn ナノ結晶の光学特性(II). 第59回応用物理学学会学術講演会, 東広島市 (広島大学), Sep. 15-18, 1998.
124. 佐竹昭泰; 舛本泰章; 徳永英司; Davydov, V.; 宮嶋孝夫; 朝妻康紀; 池田昌夫. InGaN多重量子井戸における励起子のダイナミクスII. 第59回応用物理学学会学術講演会, 東広島市 (広島大学), Sep. 15-18, 1998.

125. 舛本泰章. 半導体量子ドットの光物性の新局面-まとめと今後の課題. 日本物理学会1998年秋の分科会, 宜野湾市 (沖縄国際大学), Sep. 25-28, 1998.
126. 徳永英司; イワノフ, A.L.; ナイア, S.V.; 舛本泰章. CuCl 励起子逆系列発光による励起子分子波動関数の決定II. 日本物理学会1998年秋の分科会, 宜野湾市 (沖縄国際大学), Sep. 25-28, 1998.
127. 任 紅文; 杉崎 満; 李 定植; 菅生繁男; 舛本泰章. Polarization dependence of radiative decay time in InP quantum dots. 日本物理学会1998年秋の分科会, 宜野湾市 (沖縄国際大学), Sep. 25-28, 1998.
128. Nair, S.V.; Masumoto, Y. Many body effects in the optical spectra of semiconductor quantum dots. 日本物理学会1998年秋の分科会, 宜野湾市 (沖縄国際大学), Sep. 25-28, 1998.
129. 杉崎 満. 自己形成型単一量子点に閉じ込められた励起子の微細構造. 日本物理学会1998年秋の分科会, 宜野湾市 (沖縄国際大学), Sep. 25-28, 1998.
130. 阿部 真; 荒川真理子; 鶴町徳昭; 威 継発; 服部利明; 舛本泰章; 中塚宏樹. 半導体量子ドットを欠陥層とする1次元フォトリッククリスタル. 日本物理学会1998年秋の分科会, 宜野湾市 (沖縄国際大学), Sep. 25-28, 1998.
131. 李 定植; 任 紅文; 菅生繁男; 舛本泰章. (n11)B面GaAs 基板上成長InGaAs 量子ドットの自己組織的1次元配列. 理研シンポジウム「コヒーレント科学 (第2回)」, 和光市 (理化学研究所), Feb. 2, 1999.
132. 李 定植; 任 紅文; 菅生繁男; 舛本泰章. GaAs (211)B 基板上でのMOVPE成長InGaAs 微細構造の形状変化. 第46回応用物理学連合講演会, 野田市 (東京理科大学), March 28-31, 1999.
133. 山田 永; 田中正規; 望月隆史; 丸山隆浩; 秋本克洋. Sm ドープZnS 系超格子の光学特性. 第46回応用物理学連合講演会, 野田市 (東京理科大学), March 28-31, 1999.
134. 森島進一; 田中正規; 佐々木仁美; 丸山隆浩; 秋本克洋. Eu ドープGaN の発光効率と発光メカニズム. 第46回応用物理学連合講演会, 野田市 (東京理科大学), March 28-31, 1999.
135. 徳永英司; イワノフ, A.L.; ナイア, S.V.; 舛本泰章. Construction of biexciton wavefunction from inverse-exciton-series in CuCl III. 日本物理学会第54回年会, 東広島市 (広島大学), March 28-31, 1999.
136. 杉崎 満; 任 紅文; 李 定植; 菅生繁男; 奥野剛史; 舛本泰章. 自己形成型InP 量子点における発光の顕微イメージ. 日本物理学会第54回年会, 東広島市 (広島大学), March 28-31, 1999.
137. 任 紅文; 奥野剛史; 西林一彦; 李 定植; 菅生繁男; 舛本泰章. Photoluminescence of strain-induced InGaAs/GaAs coupled quantum dot-pairs. 日本物理学会第54回年会, 東広島市 (広島大学), March 28-31, 1999.
138. Nair, S.V.; Masumoto, Y. Undressing of polarons during exciton formation: The case of CuCl. 日本物理学会第54回年会, 東広島市 (広島大学), March 28-31, 1999.

139. Ren, H.-W.; Okuno, T.; Nishibayasi, K.; Lee, J.S.; Sugou, S.; Masumoto, Y. Fabrication and optical spectroscopy of strain-induced coupled quantum dot-pairs. Workshop on Prospects for STM-Related Sciences in Coming Decades, 仙台市（東北大学）, March 13, 1999.
140. 松本貴裕; 高橋森生; 鳥海祐一; 戚 継発; 舛本泰章; 越田信義. ナノ構造シリコン半導体を利用した発光・非線形光学素子. 応用物理学会シリコンテクノロジー分科会第8回研究集会「光るシリコンプロセス・素子技術の新展開」, 小金井市（東京農工大学）, April 23, 1999.
141. 李 定植; 菅生繁男; 舛本泰章. MOVPE成長中のエリプソメトリ信号におけるモノレイヤー振動. 第60回応用物理学会学術講演会, 神戸市（甲南大学）, Sep. 1-4, 1999.
142. 任 紅文; ナイア, S.V.; 李 定植; 菅生繁男; 舛本泰章. Electric coupling in strain-induced InGaAs/GaAs coupled quantum dot-pairs. 第60回応用物理学会学術講演会, 神戸市（甲南大学）, Sep. 1-4, 1999.
143. 松本貴裕; 舛本泰章; 鈴木淳市; 大沼正人. X線小角散乱および中性子小角散乱を用いたPSの構造評価と光学的性質. 第60回応用物理学会学術講演会, 神戸市（甲南大学）, Sep. 1-4, 1999.
144. 宮島孝夫; 佐竹昭泰; 日野智公; 徳永英司; 舛本泰章; 池田昌夫. GaN 膜における貫通転位の振る舞い (3)-発光再結合寿命の測定. 第60回応用物理学会学術講演会, 神戸市（甲南大学）, Sep. 1-4, 1999.
145. 舛本泰章. InP量子点におけるフォノンボトルネック効果. 日本物理学会1999秋の分科会, 盛岡市（岩手大学）, Sep. 24-27, 1999.
146. 杉崎 満; 任 紅文; 李 定植; ナイア, S.V.; 菅生繁男; 奥野剛史; 舛本泰章. 自己形成型InP量子点における発光の明滅現象. 日本物理学会1999秋の分科会, 盛岡市（岩手大学）, Sep. 24-27, 1999.
147. 徳永英司; イワノフ, A.L.; ナイア, S.V.; 舛本泰章. CuCl 励起子逆系列発光による励起子分子波動関数の決定IV. 日本物理学会1999秋の分科会, 盛岡市（岩手大学）, Sep. 24-27, 1999.
148. 徳永英司; 舛本泰章. マルチチャンネルダブルロックインによる単一粒子・2次元発光. 日本物理学会1999秋の分科会, 盛岡市（岩手大学）, Sep. 24-27, 1999.
149. 薄倉淳子; 鈴木宣之; ナイア, S.V.; 徳永英司; 舛本泰章. 確率論的変分法を用いた励起子分子の光学的発光強度の計算. 日本物理学会1999秋の分科会, 盛岡市（岩手大学）, Sep. 24-27, 1999.
150. Nair, S.V.; Masumoto, Y. Electronic structure of strain-induced coupled quantum dots. 日本物理学会1999秋の分科会, 盛岡市（岩手大学）, Sep. 24-27, 1999.
151. 田中正規; 戚 継発; 舛本泰章. 半導体ナノ結晶中の局在中心の発光特性. 蛍光体同学会東京（東京大学生産技術研究所）, Nov. 19, 1999.
152. 杉崎 満; 任 紅文; 李 定植; ナイア, S.V.; 西 研一; 菅生繁男; 奥野剛史; 舛本泰章. 自己形成型InP量子点の顕微イメージと発光スペクトル. 第10回光物性研究会,

- 大阪（大阪市立大学学術情報総合センター），Nov. 26-27, 1999.
153. Qi, J.; Matsumoto, T; Taya, S.; Kondo, K.; Tanaka, M; Masumoto, Y. ユウロピウム珪素酸化物薄膜の電界発光. 日本学術振興会光電相互変換第128委員会EL分科会第21回研究会, 東京（弘済会館）, Nov. 17, 1999.
 154. Ignatiev, I.; Kozin, I.; Nair S.V.; Ren, H.-W.; 菅生繁男; 舛本泰章. 電界下のInP量子ドットの発光スペクトル(I): キャリアーの緩和ダイナミクス. 第47回応用物理学関係連合講演会、東京（青山学院大学）、March 28-31, 2000.
 155. Ignatiev, I.; Kozin, I.; Nair S.V.; Ren, H.-W.; 菅生繁男; 舛本泰章. 電界下のInP量子ドットの発光スペクトル(I): キャリアーの緩和ダイナミクス. 第47回応用物理学関係連合講演会、東京（青山学院大学）、March 28-31, 2000.
 156. 舛本泰章. 分子の様にふるまう量子点. 第12回佐々木学術シンポジウム「点と線：電子物性」、つくば市（筑波大学）、Dec. 1999.
 157. Ignatiev, I.; Kozin, I.; Nair S.V.; Ren, H.-W.; 菅生繁男; 舛本泰章. 電界下のInP量子ドットの発光スペクトル(II): アンチストークス発光. 第47回応用物理学関係連合講演会、東京（青山学院大学）、March 28-31, 2000.
 158. 李 定植; 西 研一; 舛本泰章. GaAs(n11)基板上MOVPE成長InGaAs量子ドットの形状制御. 第47回応用物理学関係連合講演会、東京（青山学院大学）、March 28-31, 2000.
 159. 田中正規, 戚 継発, 舛本泰章. II-VI族半導体ナノ結晶中の局在中心. 第47回応用物理学関係連合講演会、東京（青山学院大学）、March 28-31, 2000.
 160. Ignatiev, I.; Kozin, I.; Nair S.V.; Ren, H.-W.; 菅生繁男; 舛本泰章. InP量子ドットにおけるキャリアーの緩和ダイナミクス. 日本物理学会2000春の分科会, 吹田市（関西大学）、March 22-25, 2000.
 161. Ignatiev, I.; Kozin, I.; Nair S.V.; Ren, H.-W.; 菅生繁男; 舛本泰章. InP量子ドットにおけるアンチストークス発光. 日本物理学会2000春の分科会, 吹田市（関西大学）、March 22-25, 2000.
 162. 戚 継発; 郭 曉梅; 桜井健次; 田中正規; 原田雅章; 舛本泰章. ZnSナノ結晶中にドーパされたMnイオンの局所構造. 日本物理学会2000春の分科会, 吹田市（関西大学）、March 22-25, 2000.
 163. 徳永英司; 任 紅文; 西 研一; 舛本泰章. マルチチャンネルダブルロックインによる単一粒子・2次元分光II. 日本物理学会2000春の分科会, 吹田市（関西大学）、March 22-25, 2000.
 164. 徳永英司; イワノフ、A; ナイア、セルバクマール; 舛本 泰章. CuCl励起子逆系列発光による励起子分子波動関数の決定. 日本物理学会2000春の分科会, 吹田市（関西大学）、March 22-25, 2000.
 165. 舛本泰章. 量子ドットにおける励起子のダイナミクス. 東京大学物性研究所短期研究会「量子構造体における励起子」. 東京（東京大学物性研究所）, April 24, 2000.

166. 田中正規. II-VI族半導体ナノ結晶中の局在中心. 蛍光体同学会、特定研究会（超微粒子蛍光体）、東京（三菱化学本社）、April 21, 2000.
167. 舛本泰章. 高分解能電子分光が明かす低次元系新物性. 高エネルギー加速器研究機構 物質構造科学研究所 放射光研究施設（PF）研究会. つくば市、May 9, 2000.
168. 威 継発; 舛本泰章. シリコン系威ナノワイヤーの作製と観察. つくば地区合同フォーラムークラスタ－・超微粒子・ナノ構造－、つくば市、June 14-15, 2000.

III. 書籍・総説

1. Masumoto, Y. “Persistent spectral hole burning in quantum dots.” in Prog. Cryst. Growth Charact. 33, 65-72 (1996).
2. Masumoto, Y. Luminescence of low-dimensional systems. CRC Press 「Phosphor Handbook: ed. S.Shionoya and W.M. Yen」 71 (1998).
3. 舛本泰章. “分子のようにふるまう半導体量子点－永続的ホールバーニングと間欠的発光現象.” 日本物理学会誌. 54, 431-439 (1999).
4. 舛本泰章. 半導体微粒子. 共立出版株式会社 「実験物理科学シリーズ4 メゾスコピック伝導：田沼静一、家泰弘 編」 261-277 (1999).
5. 杉崎 満; 任 紅文; 舛本泰章. 顕微イメージで探る半導体量子点に閉じ込められた励起子. 固体物理. 35, 35-45 (2000).
6. 舛本泰章. ナノ結晶のレーザー分光. 丸善株式会社 「実験物理学講座9 レーザー測定：櫛田孝司 編 第7章第3節」 294-308 (2000).

IV. 特許出願

1. 松本貴裕; 越田信義. 薄膜基板の陽極化成処理方法及びフォトルミネッセンス特性をもつ半導体薄膜. 1997.2.28出願
2. 松本貴裕; 田中正規; 李 定植. 発光素子の製造方法. 1997.6.27出願
3. 松本貴裕; 田中正規; 李 定植. 発光素子の製造方法. 1997.6.27出願
4. 松本貴裕; Selvakumar Nair. 薄膜. 1998.3.31出願
5. 菅生繁男; 杉崎 満; 任 紅文. 面発光レーザー装置. 1998.10.28出願
6. 舛本泰章; 輝尽性発光素子及びその製造方法. 1999.2.2出願
7. 松本貴裕; 威 継発. 発光薄膜及びその光デバイス. 1999.4.22出願
8. 松本貴裕; 薄膜及びそれを用いた装置. 1999.8.31出願
9. 徳永英司; マルチチャンネル2次元分光法. 1999.11.19出願
10. 舛本泰章; アップ・コンバージョン素子. 2000.1.17出願

V. 新聞発表

日刊工業新聞 量子ドット形成 ‘その場’ で観察. 1999.6.24掲載

VI. 記録映画

「量子点を光で探る」(日本語版、23分) February 2000.

「The Brilliant Worlds of Quantum Dots」(英語版、23分) July 2000.

制作：株式会社イメージサイエンス