

Publication List

Yuhei Miyauchi

Original Papers

- (1) S. Aota, N. Akizuki, S. Mouri, K. Matsuda, and Y. Miyauchi, *Appl. Phys. Express* **9**, 045103-1-045103-4 (2016).
- (2) S. Koirala, S. Mouri, **Y. Miyauchi**, and K. Matsuda, “Homogeneous linewidth broadening and exciton dephasing mechanism in MoTe₂”, *Phys. Rev. B* **93**, 075411-1-075411-5 (2016).
- (3) Q. Wang, R. Kitaura, S. Suzuki, **Y. Miyauchi**, K. Matsuda, Y. Yamamoto, S. Arai, and H. Shinohara, “Fabrication and in-situ TEM characterization of freestanding graphene nanoribbon device”, *ACS Nano* **10**, (2016) 1475-1480
- (4) N. Akizuki, S. Aota, S. Mouri, K. Matsuda, and **Y. Miyauchi***, “Efficient near-infrared up-conversion photoluminescence in carbon nanotubes”, *Nat. Commun.* **6**, 8920-1-8920-6 (2015).
- (5) **Y. Miyauchi***, Z. Zhang, M. Takekoshi, Y. Tomio, H. Suzuura, V. Perebeinos, V. V. Deshpande, C. Lu, S. Berciaud, P. Kim, J. Hone, and T. F. Heinz, “Tunable electronic correlation effects in nanotube-light interactions”, *Phys. Rev. B* **92**, 205407 (2015).
- (6) Y. Tsuboi, F. Wang, D. Kozawa, K. Funahashi, S. Mouri, **Y. Miyauchi**, T. Takenobu and K. Matsuda, “Enhanced photovoltaic performances of graphene/Si solar cells by insertion of MoS₂ thin film”, *Nanoscale* **7**, 14476-14482 (2015).
- (7) F. Wang, D. Kozawa, **Y. Miyauchi**, K. Hiraoka, S. Mouri, Y. Ohno, and K. Matsuda, “Considerably improved photovoltaic performance of carbon nanotube-based solar cells using metal oxide layers”, *Nat. Commun.* **6**, 6305-1-6305-7 (2015).
- (8) M. Iwamura, N. Akizuki, **Y. Miyauchi***, S. Mouri, J. Shaver, Z. Gao, L. Cognet, B. Lounis, and K. Matsuda, “Nonlinear photoluminescence spectroscopy of carbon nanotubes with localized exciton states”, *ACS Nano* **8**, 11254-11260 (2014).
- (9) S. Mouri, **Y. Miyauchi**, M. Toh, W. Zhao, G. Eda, and K. Matsuda, “Nonlinear photoluminescence in atomically thin layered WSe₂ arising from diffusion-assisted exciton–exciton annihilation,” *Phys. Rev. B* **90**, 155449-1-155449-5 (2014).
- (10) N. Fuyuno, D. Kozawa, **Y. Miyauchi**, S. Mouri, R. Kitaura, H. Shinohara, T. Yasuda, N. Komatsu, and K. Matsuda, “Drastic change in photoluminescence properties of graphene quantum dots by chromatographic separation”, *Adv. Opt. Mat.* **2**, 983-989 (2014).
- (11) L. Hong, S. Mouri, **Y. Miyauchi**, K. Matsuda, N. Nakashima, “Redox properties of a single (7,5) single-walled carbon nanotube determined by in situ photoluminescence spectroelectrochemical method”, *Nanoscale*, **6**, 12798-12804 (2014).
- (12) S. Zhao, T. Kitagawa, **Y. Miyauchi**, K. Matsuda, H. Shinohara, R. Kitaura, “Rayleigh scattering studies on inter-layer interactions in structure-defined individual double-wall carbon nanotubes”, *Nano Res.*, **7**, 1548-1555 (2014).
- (13) D. Kozawa, X. Zhu, **Y. Miyauchi**, S. Mouri, M. Ichida, H. Su, K. Matsuda, “Excitonic photoluminescence from nanodisc states in graphene oxides”, *J. Phys. Chem. Lett.* **5**, 1754-1759 (2014).
- (14) N. Akizuki, M. Iwamura, S. Mouri, **Y. Miyauchi**, T. Kawasaki, H. Watanabe, T. Suemoto, K. Wanatabe,

- K. Asano, and K. Matsuda, “Nonlinear photoluminescence properties of trions in hole-doped single-walled carbon nanotubes”, *Phys. Rev. B* **89**, 195432-1-195432-4 (2014).
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- (17) S. Mouri, **Y. Miyauchi**, and K. Matsuda, “Tunable Photoluminescence of Monolayer MoS₂ via Chemical Doping”, *Nano Lett.* **13**, 5944-5948 (2013).
- (18) Y. Hirana, G. Juhasz, **Y. Miyauchi**, S. Mouri, K. Matsuda and N. Nakashima, “Empirical Prediction of Electronic Potentials of Single-Walled Carbon Nanotubes With a Specific Chirality (n,m)”, *Sci. Rep.* **3**, 2959-1-2959-6 (2013).
- (19) F. Wang, D. Kozawa, **Y. Miyauchi**, K. Hiraoka, S. Mouri and K. Matsuda, “Enhancement Mechanism of the Photovoltaic Conversion Efficiency of Single-Walled Carbon Nanotube/Si Solar Cells by HNO₃ Doping”, *Appl. Phys. Express* **6**, 102301-1-102301-4 (2013).
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- (30) Zhang, Z., E. Einarsson, Y. Y. Murakami **Y. Miyauchi**, and S. Maruyama, “Polarization Dependence of Radial Breathing Mode Peaks in Resonant Raman Spectra of Vertically Aligned Single-Walled Carbon Nanotubes”, *Phys. Rev. B* **81**, 165442-1-165442-9 (2010).
- (31) K. Matsuda, **Y. Miyauchi**, T. Sakashita, and Y. Kanemitsu, “Nonradiative Exciton Decay Dynamics in Hole-Doped Single-Walled Carbon Nanotubes”, *Phys. Rev. B* **81**, 033409-1-033409-4 (2010).
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- (37) T. Yamamoto, **Y. Miyauchi**, J. Motoyanagi, T. Fukushima, T. Aida, M. Kato, S. Maruyama, “Improved Bath Sonication Method for Dispersion of Individual Single-Walled Carbon Nanotubes Using New Triphenylene-Based Surfactant”, *Jpn. J. Appl. Phys.* **47**, 2000-2004 (2008).
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(64 original papers, total number of citations: **2943**, h-index: **24**, Web of Science, March 26, 2016)

Review Articles

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- (3) **Y. Miyauchi***, "Photoluminescence studies on exciton photophysics in carbon nanotubes," *Journal of Materials Chemistry C* **1**, 6499-6521 (2013). (Invited Review Article).
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Conference Proceedings

- (1) Berciaud, S., Deshpande, V. V., Caldwell, R., **Y. Miyauchi**, Voisin, C., Kim, P., Hone J., and Heinz, T. F., "All-optical Structure Assignment of Individual Single-walled Carbon Nanotubes from Rayleigh and Raman Scattering Measurements", *phys. stat. sol. b* **249**, 2436-2441 (2012).
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- (3) S. Maruyama and **Y. Miyauchi**, "ACCVD Growth, Raman and Photoluminescence Spectroscopy of Isotopically Modified Single-Walled Carbon Nanotubes," *Electronic Properties of Novel Nanostructure* (AIP Conf. Proc. 786), 100-105 (2005).