

量子オプトエレクトロニクス研究チーム／Quantum Optoelectronics Research Team

(1) 原著論文 (accept) を含む / Original Papers

1. S. Tanaka, K. Otsuka, K. Kimura, A. Ishii, H. Imada, Y. Kim, and Y. K. Kato: “Organic molecular tuning of many-body interaction energies in air-suspended carbon nanotubes”, *J. Phys. Chem. C* 123, 5776 (2019).
2. T. Uda, S. Tanaka, and Y. K. Kato: “Molecular screening effects on exciton-carrier interactions in suspended carbon nanotubes”, *Appl. Phys. Lett.* 113, 121105 (2018).
3. W. Gomulya, H. Machiya, K. Kashiwa, T. Inoue, S. Chiashi, S. Maruyama, and Y. K. Kato: “Enhanced raman scattering of graphene using double resonance in silicon photonic crystal nanocavities”, *Appl. Phys. Lett.* 113, 081101 (2018).
4. A. Ishii, X. He, N. F. Hartmann, H. Machiya, H. Htoon, S. K. Doorn, and Y. K. Kato: “Enhanced single photon emission from carbon nanotube dopant states coupled to silicon microcavities”, *Nano Lett.* 18, 3873 (2018).

(2) 著書・解説など / Book Editions, Review Papers

1. A. Ishii, H. Machiya, T. Uda, Y. K. Kato, “Exciton Physics in Single-Wall Carbon Nanotube Photonic and Optoelectronic Devices”, in *Handbook of Carbon Nanomaterials Vol. 9: Optical Properties of Carbon Nanotubes*, edited by R. B. Weisman and J. Kono (World Scientific Publishing, Singapore, 2019), p. 269-396.

(3) 招待講演 / Invited Talks

1. Y. K. Kato, “Air-suspended carbon nanotubes for nanoscale quantum photonics”, *International Workshop on Nanocarbon Photonics and Optoelectronics (NPO2018)*, Savonlinna, Finland, August 9, (2018).
2. Y. K. Kato, “Single-carbon-nanotube photonics and optoelectronics”, *OSA Advanced Photonics Congress*, Zurich, Switzerland, July 2, (2018).
3. A. Ishii, T. Uda, and Y. K. Kato, “Room-temperature single photon emission from micrometer-long air-suspended carbon nanotubes”, *233rd Electrochemical Society Meeting*, Seattle, Washington, USA, May 16, (2018).

(4) 会議、シンポジウム、セミナー主催 / Meeting, Symposiums and Seminars

1. セミナー, “Lasing characteristics of nanocavity Raman silicon lasers”, 和光, 3 月 13 日, (2019).
2. セミナー, 「ナノマイクロ構造を用いた熱ふく射のスペクトル制御と TPV 発電への応用に関する研究」, 和光, 2 月 28 日, (2019).
3. セミナー, 「自己形成 IgAs/GaAs 量子ドットを用いた単一プラズモン源に関する研究」, 和光, 2 月 19 日, (2019).
4. セミナー, 「高 Q 値フォトニック結晶ナノ共振器を用いた量子ドット共振器量子電磁力学」, 和光, 2 月 19 日, (2019).
5. セミナー, “Fundamentals and applications of microresonator frequency combs”, 和光, 1 月 31 日, (2019).
6. セミナー, “Determination of the position of a single nuclear spin from free nuclear precessions detected by a solid-state quantum sensor”, 和光, 1 月 29 日, (2019).
7. セミナー, “Sub-wavelength modifications in silicon-on-insulator microring resonators for enhanced sensing”, 和光, 11 月 14 日, (2018).
8. 理研-東京大学カーボンナノチューブミニワークショップ, 和光, 11 月 7 日, (2018).
9. JSPS-DFG Bilateral Meeting on Carbon Nanotube Optics and Nanospectroscopy, Hakone, Japan, July 8-13, (2018).
10. 7th Workshop on Nanotube Optics and Nanospectroscopy (WONTON18), Hakone, Japan, July 8-12, (2018).

(5) 特筆すべき事項・トピックス(雑誌表紙などの掲載記事) / Topics

1. RIKEN RESEARCH, “Enhanced emission of single photons realized”, p18, WINTER (2018).