Nikolaos Matthaiakakis

List of publications – 31/07/2020

ORCID: https://orcid.org/0000-0002-3886-5208

DOCTORATE THESIS

- Matthaiakakis, Nikolaos (2017) Dynamic modulation of plasmon excitations in monolayer graphene. University of Southampton, Doctoral Thesis, 231pp.

CONFERENCES

a. T. Matsukata, N. Matthaiakakis, T. Yano, M. Hada, T. Tanaka, N. Yamamoto & T. Sannomiya. Higher-order electric and magnetic multipole modes visualized by STEM-Cathodoluminescence. Surface Plasmon Photonics, Copenhagen, Denmark, May 2019.

b. T. Matsukata, C. Wadell, N. Matthaiakakis, T. Okamoto, N. Yamamoto & T. Sannomiya Interference imaging of plasmonic nanoparticles to extract phase by cathodoluminescence scanning transmission electron microscopy. Surface Plasmon Photonics, Copenhagen, Denmark, May 2019.

c. N. Matthaiakakis, H. Mizuta, M. D. B. Charlton. (2017). Tuneable Total Optical Absorption in a Triply Resonant Metal-Insulator-Graphene Hetero-Structure Plasmonic Device. Graphene Week 2017. Athens, Greece.

d. N. Matthaiakakis, H. Mizuta, M. D. B. Charlton. (2017). Excitation and dynamic control of plasmons in graphene by utilizing a 2-dimensional inverted pyramid array diffraction grating. CLEO®/Europe-EQEC 2017. Munich (ICM), Germany.

e. N. Matthaiakakis, H. Mizuta, M. D. B. Charlton. (2016). Excitation and strong electrical modulation of plasmons in graphene with the use of a 2-dimensional inverted pyramid array diffraction grating. In 63rd JSAP spring meeting. Tokyo Institute of technology, Ookayama campus.

f. Panagiotis Photopoulos, Nikolaos Matthaiakakis, Stavros Giannakopoulos, Marianthi Panagopoulou and Dimitrios Tsoukalas: "Electrical transport study of silver nanoparticle thin films", Poster and paper, Micro&Nano2012 on Micro - Nanoelectronics, Nanotechnologies and MEMS, Heraklion, 7- 10 October 2012

g. P. Photopoulos, N. Matthaiakakis, S. Giannakopoulos and D. Tsoukalas : "Room and Low Temperature Conduction of Silver Nanoparticles", Poster and paper, XXVIII Panhellenic Conference on Solid State Physics and Materials Science, Patra, 23-26 September 2012.

JOURNAL PUBLICATIONS

1. N. Matthaiakakis, & T. Sannomiya. Boundary Element Method Simulations of Tunable Chiral Radiation and Active Chirality Switching from Rectangular Graphene Nanosheets: Implications for Dynamic Control of Light Chirality. ACS applied nano materials, May 28, 2020, doi: 10.1021/acsanm.0c01202.

2. T. Matsukata, N. Matthaiakakis, T. Yano, M. Hada, T. Tanaka, N. Yamamoto & T. Sannomiya. Selection and Visualization of Degenerate Magnetic and Electric Multipoles up to Radial Higher Orders by Cathodoluminescence. ACS photonics, August, 2019, doi: 10.1021/acsphotonics.9b00833.

3. T. Matsukata, C. Wadell, N. Matthaiakakis, N. Yamamoto & T. Sannomiya. Selected mode mixing and interference visualized within a single optical nanoantenna. ACS photonics 5, November, 2018, doi: 10.1021/acsphotonics.8b01231.

4. N. Matthaiakakis, Y. Xingzhao, H. Mizuta, M. D. B. Charlton. Tuneable strong optical absorption in a graphene-insulator-metal hybrid plasmonic device. Sci. Rep., 2017.

5. N. Matthaiakakis, H. Mizuta, M. D. B. Charlton. Strong modulation of plasmons in graphene with the use of an Inverted pyramid array diffraction grating. Sci. Rep. 6, 1–11 2016.