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Centre of Physics and Technological Research

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Proactive lecturer and researcher with over 15 years of experience teaching courses on undergraduate and postgraduate levels. Supervised 72 BA theses and 30 MA theses dissertations. Published over 100 articles in peer-reviewed journals.

Education

2004, PhD in Physics, Department of Physics, Sophia University, Japan
2001, M Sc in Physics, Department of Physics, Sophia University, Japan
1999, Graduation in Physics, Department of Physics, Sophia University, Japan

Professional Background

2019 – Present Professor, Faculty of Science and Technology, Sophia Univ.
2010 – 2019 Associated Professor, Faculty of Science and Technology, Sophia Univ.
2007 – 2010 Junior Associated Professor, Faculty of Science and Technology, Sophia Univ.
2005 – 2007 Research Associate, Faculty of Science and Technology, Sophia Univ.
2004 – 2005 Special Postdoctoral Researchers, RIKEN, Japan

Affiliated Academic Society

Physical Society of Japan
The Atomic Collision Society of Japan
The Japanese Society for Synchrotron Radiation Research
The forum for atomic and molecular data and their applications

Fellowship

Aug. 2010Short-term Bilateral Programs, Japan Society for the Promotion of Science

Professional Activities

2011 – 2013 Member of International Symposium on Electron-Molecule Collision and Swarms, International Advisory Committee
2011 – 2013 Member of Local organization committee, XVIII International Symposium on Electron-Molecule Collisions and Swarms (Co chair, Kanazawa 2013, Japan)

Publications

Journal Articles

1. H. Tanaka et al., “Elastic and inelastic scattering of low-energy electrons from gas-phase C60: elastic scattering angulur distributions and coexisting solid-state features revisited”, Eur. Phys. J. D 75, 293 (2021), coauthor.
2. P. Limão-Vieira et al., “Revisiting the photoabsorption spectrum of NH3 in the 5.4 – 10.8 eV energy region”, J. Chem. Phys. 151, 184302 (2019), coauthor.
3. M. Hoshino et al., “Change in site-specific shape resonances in nitrogen K-shell photoionization of N2O induced by vibrational excitation, J. Phys. B: At. Mol. Opt. Phys. 51, 065402 (2018).
4. N. Hishiyama et al., “Absolute cross section measurements for the scattering of low- and intermediate-energy electrons from PF3. II. Inelastic scattering of vibrational and electronic excitations”, J. Chem. Phys. 148, 084313 (2018), coauthor.
5. N. Hishiyama et al., “Absolute cross section measurements for the scattering of low- and intermediate-energy electrons from PF3. I. Elastic scattering”, J. Chem. Phys. 147, 224308 (2017), coauthor.

Other 117 peer-reviewed articles

Presentations

1. M. Hoshino and A. Yodo, “Isotope effect observed in collision cross sections by low-energy electron impact”, XXII International Symposium on Electron-Molecule Collisions and Swarms (POSMOL 2021, virtual meeting, July 29, 2021).
2. M. Hoshino, “Absolute cross section measurements in collisions of low- and intermediate-energy electrons with polyatomic molecules”, International Workshop on Atomic and Molecular Data for Plasma Applications (Sapporo Education and Culture Hall, Sapporo, Hokkaido, Japan, July 14, 2019).
3. M. Hoshino, “Low energy electron spectroscopy of fluorine containing molecules”, Research frontier on atomic elementary processes in peripheral plasmas (Nuclear Institute of Fusion Science, Feb. 21, 2018).

Other 6 invited presentations and 20 proceedings