



Group introduction

The aim of our research is to explore nanometrology by exploiting the novel functionality of inorganic nanomaterials. We are currently investigating nanoscale properties of biological samples and electronic devices, through optical responses of nanodiamonds and metallic nanoparticles. Our group was launched in Okayama University in April 2021.

Research topics

1. Quantum measurement systems for probing temperatures in cells and multi-cellular organisms.
2. Functional nanomaterials using nanodiamonds and metallic nanostructures for quantum sensor applications.
3. Exploring new applications of quantum temperature sensors in electronic device science.

The Candidates

This time, we are looking for a highly motivated candidate who can work for system development of quantum thermometry system and its application to thermal analysis. The candidate should have background in photonics, physics, and mechanical/electric engineering. The candidate should be comfortable with English communication. We offer excellent working conditions and a state-of-the-art infrastructure in a highly dynamic environment at the forefront of research.

Financial support

The living cost in Okayama as PhD students is mostly 100-150 k¥ (Room rent: 30 k¥, Utility: 5 k¥, Food: 40 k¥ per month, etc...). Our support from our research budget is about 120 k¥ per month. Note that our university has multiple supporting systems (fellowships up to 200 k¥ per month and other scholarships). We also ask the candidates apply to these supports.

Contact & application procedure

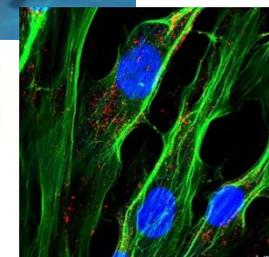
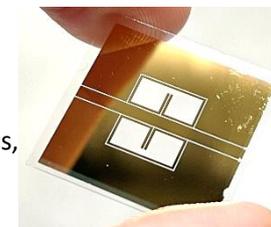
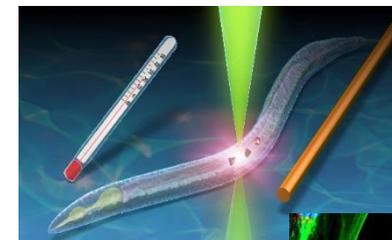
Contact to Prof. Fujiwara with a motivation letter, detailed CV. After having on-line discussion with us, you will need to build project details of your PhD study. Then, the candidates are required to take entrance examination (mainly interview) of the university (see details [here](#)). Feel free to contact us for the detail!

Masazumi Fujiwara, PhD

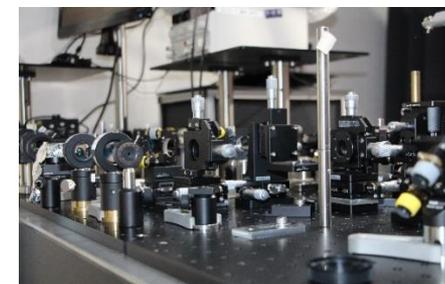
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Nanodiamond quantum sensors for biology and electronic devices



State-of-the-art microscopy



Recent publications:

Nanotech. DOI: 10.1088/1361-6528/ac1fb1
Phys. Rev. Research **2**, 043415 (2020).
Sci. Adv. **6**, eaba9636 (2020).
ACS Appl. Nano Mat. **2**, 3701 (2019).



Okayama University is a historical national university with diverse research programs. It is one of 22 “Research Universities” designated by Japanese government. Many international students are studying in our campus (indeed 1/3 of graduate-school students in our department come aboard). With various supports from the university and a relaxed atmosphere of Okayama, most of international students enjoy studying at Okayama University.



Okayama, known as the “Land of Sunshine”, is an amazing city with fine weather and wonderful scenery. Located 200 km from Osaka and easy day trip to Kobe, Osaka, Kyoto.

