**Wanted!  Graduate Chemistry Student (Doctoral or Master course)**
Laboratory of Electrochemistry of Soft-Matters at Nagasaki University, Japan

We welcome new graduate students, both master & doctoral, and talented and energetic young post-doctoral fellows, regardless of their country of origin. We provide a Ph.D. course scholarship (1.8 million JP-yen/year) after a competitive selection. E-mail me now. After an Internet interview, let us discuss your entrance exam Plan and possible external financial support. We also welcome Joint-application for JSPS young PD.

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<th>Prof. Takamasa Sagara</th>
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<td>Laboratory of Dynamic Molecular Chemistry</td>
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<td>Graduate School of Engineering</td>
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<td>Nagasaki University, Nagasaki, Japan</td>
<td>Spectro-electrochemistry</td>
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**Main Research**

1. **Design and Construction of Molecular Robots using Molecular Engine at Electrified Interface**: A reversible high-speed movement of a hydrogel soft-robot with a large amplitude should be realized. The hydrogel may crawl like an amoeba by electrochemical control. (right-lower figure)

2. **Electrochemistry of Viologens: from Ionic Liquid to Self-Assembled Monolayers**: From ionic liquids to organized monolayers, color change and fast electron transfer of viologen redox are attractive. Viologen redox is also used to drive the molecular robot.

3. **Electroreflectance Spectroscopy at Electrified Interface**

**Other Research topics:**
Electrochemically Driven Oil Droplet in Water, Phase Transition of Organic Monolayer by Redox Reaction, Surface Modification of ITO electrode with Redox-Active Monolayer, Gold Nanoparticles at Electrified interfaces, and Bio-electrochemistry.

**Research Key Words**
Molecular robot, Viologen, Hydrogel, Electoreflectance methods, Functional Electrode

**Note**
Researchmap: https://researchmap.jp/read0043411?lang=en

Dr. Sagara was born in 1960 in Tokyo, graduated from Yokohama National Univ., and obtained a Ph. D. (Engineering) from Graduate School of Engineering of The Univ. of Tokyo in 1987. He joined Nagasaki Univ. as an Associate Professor and was promoted to a full Professor in 2004. He received the Excellent Young Chemist prize from the Chemical Society of Japan in 1994. His research was supported by the PRESTO (JST) grant in 1999–2003. He was the Editor-in-Chief (2008–2013) of *Review of Polarography*. He is currently the president of the Polarographic Society of Japan. He was awarded as the best reviewer of grant screenings. He edited and wrote a basic chemistry textbook “University Basic Chemistry for the Faculty of Science and Engineering”, 2019.