

(For JSPS Fellow)

Form B-5

Date (日付)

04/06/2014 (Date/Month/Year: 日/月/年)

Activity Report -Science Dialogue Program-
(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Mustafa SUPUR (ID No. P13330)

- Participating school (学校名): Mukogawa Women's University Junior&Senior High School

- Date (実施日時): 31/05/2014 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Perylenediimide Dyes: Fluorescence and Molecular Self-Assembly

(in Japanese) N/A

- Lecture summary (講演概要): My presentation had two parts. In the first part, I introduced my home country to the students by giving some fast facts and showing maps and pictures of some unique places and buildings. I started the second part with a general information about the perylendiimide dyes and went into details of the contents with two sections. In the first section, after I described fluorescence phenomenon theoretically, I showed the students the fluorescence emission of some dyes in solution and solid state by using a portable UV lamp. Then, I gave some examples for noteworthy applications of these dyes in the cell imaging field. In the second section, I explained the molecular self-assembly by an illustration. I showed the directional stacking of small rectangular boxes that resemble the molecular structures of perylenediimide dyes. By this way, I tried to make students visualize how the self-assembly happens at the molecular level. In this section, I showed some electron microscope images of the one-dimensional nanostructures (nanowires) resulting from the self-assembly of perylenediimide molecules. I mentioned about the electron movement within this nanowires during the light exposure. I informed them about the possible applications of the self-assemblies of these dyes for solar cell fabrication. Finally, I showed short movies recorded while performing some experiments in the lab.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) ~80 min (分), Q&A time (質疑応答時間) ~30 min (分)

◆Lecture style(ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

used projector, conducted experiment

Must be typed

- ◆ Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

assistance by an accompanied person

- ◆ Name and title of accompanied person (同行者 職・氏名)

ISAKA Yusuke, master student in Osaka University

- ◆ Other note worthy information (その他特筆すべき事項):

- Impressions and opinions from accompanied person (同行者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):