

Form 3

Date (日付)

(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 (参加外国人研究者氏名): Noya Loew (ID No. P08801)

Participating school (参加機関(受入学校名)): Yokohama Science Frontier High School

Date (実施日時): 18/08/2009 (Date/Month/Year:日/月/年) Time: from 09:30 to 12:00

Lecture title (講演題目): (in English) Dye-Sensitized Solar Cells

(in Japanese) 色素増感太陽電池

Lecture summary (講演概要):

Increasing environmental awareness has led to an increasing demand for CO<sub>2</sub>-emission-free energy. A good part of this green energy is produced by converting sun light into electricity using solar cells.

So far, most available solar cells are made of mono- and polycrystalline silicon and have high production costs. Here, dye-sensitized solar cells (DSSCs) are a very promising low cost alternative.

DSSCs are easy to make and can have many different shapes and colors. This lecture shows how DSSCs work and how they are made.

Language used (使用言語): English / 日本語

Lecture format (講演形式):

○Lecture time (講演時間) 10 min (分), Q&A time (質疑応答時間) 140 min (分)

○Lecture style (examples: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、プレ実験など))

used projector; Q&A time included the students doing experiments

○Interpreter (example: assistance by host or colleague, provided Japanese explanation by yourself)

(通訳 (例: 受入研究者によるサポート、外国人研究者本人による日本語説明))

everyone used a mixture of English and Japanese

Name and title of assistant (協力者 職・氏名) (example: host or colleague)

榎本 幹男 (2nd year master student)

高見 英治 (2nd year master student)

田中 佑宜 (1st year master student)

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

As the students already heard a lecture on DSSCs before, we focused on experiments. The students assembled their own DSSCs. Part of their cells were evaluated back at the university as the school didn't have the necessary equipment. The other cells were used to demonstrate they produce electricity by operating a small motor.

Impressions and opinions of assistant (協力者から本事業に対する意見・感想等がございましたら、お願いいたします。):

今回協力者として参加させていただくことで非常に貴重な経験を得ることが出来ました。

- ①高校生という全くの素人にも分かるように説明できるスキルを得た
- ②生徒さんが真面目に聞いてくれたので、自分の研究分野の興味深さを再確認できた
- ③英語で研究に関する話をする場を得た

これらの点で若い人にとっては非常に有意義な場であると考えられるので、

ぜひとも協力者という形でもっと参加できるようにすべき(外国人研究者の方だけでなく、研究室全体で誘って欲しい)