

(For JSPS Fellow)

Form B-5

Date (日付)

09/12/2014 (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): Delamarre Amaury (ID No. P14727)
- Participating school (学校名): Junior High School at Komaba, University of Tsukuba (Setagaya, Tokyo)
- Date (実施日時): 2014 October 18 (Sat) (Date/Month/Year:日/月/年)
- Lecture title (講演題目): (in English) Solar energy

(in Japanese) 太陽光エネルギー

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

As an introduction, the international collaboration Japan / France in which I am currently working was introduced. The role of a researcher was then exposed, and we could discuss about the recently Nobel Prize awarded Japanese researchers.

Then the issue of our current energy sources was presented, and the need of new production means was evidenced. The working principle of a solar cell was briefly explained, explaining that photons and electrons (which are already basically known by the students) are involved. I could briefly expose one of my current research axis, in which we aim at modifying the standard composition of a solar panel to reach higher efficiencies.

In the last part experiments were carried out by the students themselves in small groups. They used voltmeters (provided by the school), energy sources (phone battery, camera battery, alkaline battery, small solar cell) and electronic devices (motor, green and red LED). The different capabilities of the different energy sources, and the consumptions of the different devices were compared. Finally I made the demonstration of the similar operation of LED and solar cells.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 60 min (分), Q&A time (質疑応答時間) 20 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))

Projector, experiments by students, experiment by myself

◆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))

A japanese colleague accompanied me.

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

Dr. Kentaroh Watanabe

◆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。):

**This project seems to be well promoted I felt as a accompanied person.
Sutudents studiously discussed in English about the scientific content. I
hope this project should be continuously put into practice.**