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（For JSPS Fellow）

Form B-5

Date（日付）
20/10/2014 （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）: Solís Fernández, Pablo （ID No. P 13352）

- Participating school（学校名）: Kurume Meizen Highschool

- Date （実施日時）: 14/10/2014 （Date/Month/Year:日/月/年）

- Lecture title（講演題目）: Graphene. Or why the future of electronicsmay be in your pencil

（in Japanese）

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

I used the first part of the talk to briefly present myself and Spain, my home country. I tried to show to the students the most prominent facts about Spain and Asturias. During this part I also explained the reasons why I moved to Japan and why I choose to become a scientist.

For the second part I tried to introduce the students to graphene, my topic of research. Starting with some generalities about the carbon atoms, I explained how they can form chemical bonds with other atoms. The versatility of the carbon to form bonds give rise to the existence of materials which, although composed uniquely of carbon atoms, are completely different from each other, as in the case of graphite and diamond. With these two materials in mind, I tried to explain how the differences between them are directly related to the nature of the chemical bonds. Then I talked about graphitic materials of lower dimensionalities, namely fullerenes (0D), nanotubes (1D) and graphene (2D). I tried to remark the similarities between these materials and the graphite, and how graphene can be thought of as the starting point for the rest of them. To finalize, I centered on graphene, starting from the ways that it can be obtained. After explaining about different approaches that allow to obtain graphene starting from graphite, I described the chemical vapor deposition method (CVD) that we employ in our laboratory. Once that I described how it can be produced, I briefly explained some of the most relevant properties of the graphene and finished describing some of the potential uses that we can expect from it in the following years.

- Language used（使用言語）: English

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- Lecture format（講演形式）:

◆Lecture time（講演時間） 60 min（分）, Q&A time（質疑応答時間） 5 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））

Powerpoint presentation using a projector

◆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））

None

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

◆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。）: