

(For JSPS Fellow)

Form B-5

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 (講師氏名) : Arnau Carné áancheza
(ID No. P 14339)

- Participating school (学校名): Yamashiro High School

- Date (実施日時) : 07/11/2015
(Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Introduction to porous materials
(in Japanese) 多孔質材料の紹介

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

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Being a scientist is about being curious and wanting to know more. However, it is not a task that can be done alone. It is essential to be able to share and get new knowledge from the others. Knowledge sharing has been the key of the technical and scientific development. Even though science can be done in any language, scientific community is currently using English to communicate and share knowledge. Therefore, now a day, it is difficult to pursuit an international scientific career without being able to communicate in English.

My short scientific career has been dedicated to the study of porous materials. Porous materials are special because their contain voids in their structure. These voids can then be used for multiple purposes such as filtrate, store, and transport of molecules. The story of porous materials started long time ago, nearly 3500 years ago, with the use of the activated carbon to remove bad odours. Later, the discovery that some inorganic minerals, known as zeolites, also possessed porosity further pushed the field of porous materials. Since then, humans have tailored porous materials to achieve new properties. Now a day, the combination of coordination chemistry with porous materials has enabled the fabrication of new porous materials called Coordination Porous Materials (PCP). These materials are special because their porosity can be rationally designed by using coordination chemistry. PCPs are currently the materials presenting the highest porosity and higher storage capacity for gases such as methane and hydrogen. These make them very interesting for energy related applications.

- Language used (使用言語): English _____

- Lecture format (講演形式):

◆Lecture time (講演時間) _____ 70 min (分), Q&A time (質疑応答時間) _____ 45 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 for the lecture. At the end of the lecture an experiment was performed to better illustrate the lecture

◆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))

Dr. Masashi Nakahama (中浜雅士) helped me through all the lecture being an excellent assistant.

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

Dr. Masashi Nakahama (中浜雅士) Deliverable _____

◆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。):