

(For JSPS Fellow)

Form B-5

Date (日付)

23/02/2016 (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): Mohd Asmadi Bin Mohammed Yussuf (ID No. P15101)
- Participating school (学校名): Fukui Prefectural Koshi Senior High School
- Date (実施日時): 20/02/2016 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Thermal Conversion of Biomass into Bioproducts  
(in Japanese) 熱変換によるバイオマスからのバイオ化成品製造
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

Before the lecture, I introduce briefly about myself. Then, the lecture was divided into 3 sections and in the end of each section there were some Q&A sessions. The lecture for first section related to my county, Malaysia. In this section I explained the location of Malaysia regarding on the map of ASIA, the capital city of Malaysia, ethnics available in Malaysia, our culture and lifestyle.

Second section was regarding on my life as researcher. In this section I talk about my journey as a researcher, what I did before coming to Japan and a motivation to become a researcher. I also introduced my laboratory in Graduate School of Energy Science, Kyoto University and my research interest.

The last section is the main topic for the presentation. I presents about "Conversion of Biomass into Bioproducts". In this section I started by introducing the definition of biomass and the relationship between biomass, photosynthesis, solar energy, global C-cycle, bio-energy and biomass accumulation on earth. Then, I explained the chemical compositions of biomass and also distributed the handout to student to increase their understanding on the chemical composition of biomass. Further, I introduced the biomass resources available in Malaysia and explained promising technologies that were able to convert the biomass into valuable bioproducts. After that, I presents about combustion, pyrolysis and gasification together with their applications. Then I focusing on my research and finding in pyrolysis of wood. In this part I showed the experimental procedure in our laboratory and the products obtained during experiment. I also showed some analyzer we used to analyze the products and model compounds we used to study pyrolysis mechanisms. Finally, I demonstrated some simple molecular mechanisms that we obtained from our study.
- 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) ~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 power point and projector, distributed a handout, showed samples, products and reactor used in our experiment.

◆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 a supervisor

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

Assoc. Prof. Haruo Kawamoto

◆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。):

訪問先の高志高校の生徒さんは、近々にマレーシアを訪問されるとのことで、今回の Mohd Asmadi 氏の講演は大変興味深いものであったと思われます。マレーシアの地理、文化などの情報も熱心に聞いている様子でした。何よりも、母国語を英語としないマレーシア人と日本人が英語でコミュニケーションをとるよい機会となったものと思います。研究内容についての細部の理解は困難でしょうが、研究の現場、若手研究者の意気込みなどを肌で感じ取ることができたのではないかと思います。今回のような双方向でのコミュニケーションを主体とする事業は高校生にとって有意義であり、Mohd Asmadi 氏にとってもよい経験になったものと思います。