

(For JSPS Fellow)

Form B-5

Date (日付)

11/09/2015 (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): Ahmed Mohamed Elmahdy Ahmed Mohamed (ID No.P14378)

- Participating school (学校名): Meizen high school _____

- Date (実施日時): 20/10/2015 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) "Bubbles! Not only for fun"

(in Japanese)"バブル! だけでなく、楽しみのために"(from google translate)

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

Bubbles are generated for having fun for kids. However, this is not the only benefit for bubbles. Bubbles are being used in mineral separation in a process called froth flotation. In this process, bubbles are blown from the bottom of the machine to carry specific mineral particles to the surface of the machine to be skimmed out and leaving the other particles to sink in the bottom of the machine. In order to make the bubbles attach to particles, those particles have to be hydrophobic (water hating or air loving). This is achieved by addition of hydrocarbon materials called collectors. Collectors consists of two parts, head and chain. The head is charged group (hydrophilic, water loving) while the chain is hydrophobic (air loving). The collector adsorb at the mineral surface by its head and the tail is directed to the solution making the mineral surface hydrophobic so that bubbles can attach to it. Bubbles need to be small and stable which is attained by using frothers.

- 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) 10 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))

Power point presentation_____

- ◆ 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))

_____ Done by accompanying person

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

_____ Dr. Hajimemiki

- ◆ 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。):