

(For JSPS Fellow)

Form B-5

Date (日付)

16.02.2012 (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): Pavel A. DUB (ID No. P10344)

- Participating school (学校名): Shizuoka Prefectural Iwata Minami High School

- Date (実施日時): 15.02.2012 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Private Life of Molecules

(in Japanese)

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

The lecture covers fundamental aspects of physics and chemistry: materia and field; string, quark, proton, neutron, electron, atom, molecule. Different types of molecular dynamics (i.e. translational, rotational, vibrational movements; various dynamic rearrangements with corresponding video animations) and their influence on chemical properties were discussed. Short introduction into Mendeleev Periodic Table, Graphical models of Structural Chemistry, Absolute Zero in physics, IR, Atomic force microscope and X-Ray diffraction was done. The lecture finishes with the demonstrating video of the Belousov-Zhabotinsky vibrational reaction, a classical example of the non-equilibrium thermodynamics.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 50 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))

Powepoint 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))

assistance by accompanied person

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

Mr. Atsushi UENO (PhD student of Tokyo Institute of Technology)

◆Other note worthy information (その他特筆すべき事項):

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- 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。): excellent work!