

様式 A-1  
(FY2024)

6年 12月 17日

## サイエンス・ダイアログ 実施報告書

1. 学校名・実施責任者氏名: 愛知県立岡崎高等学校・足立輝明
2. 講師氏名: Nils BAEUMER
3. 講義補助者氏名: なし
4. 実施日時: 6年 12月 13日 (金) 16:00 ~ 18:00
5. 参加生徒: 1年生 20人、 2年生 14人、 3年生 0人 (合計 34人)  
備考: (例: 理数科の生徒) 文理混合
6. 講義題目: Turning molecules into building for microarchitectures
7. 講義概要: 分子結合の原理と生物学でのその応用について
8. 講義形式:  
☒ 対面 ・ ☐ オンライン (どちらか選択ください。)
  - 1) 講義時間 90分 質疑応答時間 30分
  - 2) 講義方法 (例: プロジェクター使用による講義、実験・実習の有無など)  
プロジェクター使用による講義と実験
  - 3) 事前学習  
☒ 有 ・ 無 (どちらかに○をしてください。)  
使用教材 講師による事前プリントの読解
9. その他特筆すべき事項:

難しい化学の内容を実験を用いて身近に感じさせ、さらに的確な解説で興味深く伝えてもらいました。

Form B-2  
(FY2024)  
Must be typed

Date (日付) 16/12/2024  
(Date/Month/Year: 日/月/年)

**Activity Report -Science Dialogue Program-**  
(サイエンス・ダイアログ 実施報告書)

- Fellow's name (講師氏名): Dr. Nils Bäumer (ID No.P 23701 )

- Name and title of the lecture assistant (講義補助者の職・氏名) Does not apply

- Participating school (学校名): Okazaki High School

- Date (実施日時): 13.12.2024 (Date/Month/Year: 日/月/年)

- Lecture title (講義題目):

Turning molecules into building blocks for microarchitectures

- Lecture format (講義形式):

◆ ☒ Onsite ・ ☐ Online (Please choose one.)(対面 ・ オンライン)((どちらか選択ください。))

◆ Lecture time (講義時間) about 80 min (分), Q&A time (質疑応答時間) about 30 min (分)

◆ Lecture style (ex.: used projector, conducted experiments)

(講義方法 (例: プロジェクター使用による講義、実験・実習の有無など))

Lecture was presented with a projector provided by the school. I used my own laptop and conducted a small experiment as a part of the lecture. \_\_\_\_\_

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.

For the first part of the lecture I introduced my country of origin as well as myself (my hobbies and interestes outside of the laboratory) to the students. In this forst part of the lecture I also tried to introduce the job of researcher to the students more generally to give them an impression of what this line of work is like. As suggested by the teacher we conducted a first Q&A session after this first part of the lecture to break up the lecture format and make the students engage a little bit more. After that we took a quick 5 minute break to let the students recover before the next session. In the second half I introduced my research topic more broadly before showing some of my own experimental results. As a part of that I also gave a small presentation showing how molecules show different kinds of emission based on temperature. During this course of the lecture I tried to find a lot of comparisons between my chemistry and everyday life that the students may know already to help them understand a little easier. For instance comparing binding interactions between molecules to the a Velcro fastener. After this session the students had the opportunity to ask additional questions. I was pleasently surprised that the students asked a lot of science related questions in the second half.

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

None

- Impressions and comments from the lecture assistant (講義補助者の方から、本プログラムに対する意見・感想等がありましたら、お願いいたします。): Does not apply.

