

Form B-2
(FY2022)
Must be typed

Date (日付)
24/01/2023 (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): ZHU Luting (ID No. P22094)

- Name and title of the lecture assistant (講義補助者の職・氏名)
HUANG Yingtong (doctor student)

- Participating school (学校名): Kyoto Municipal Kyoto Kogakuin Senior High School

- Date (実施日時): 20/01/2023 (Date/Month/Year: 日/月/年)

- Lecture title (講義題目):
Development of nanofibers from nature for society innovation

- 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) 50 min (分), Q&A time (質疑応答時間) 20 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))
Used projector

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.
About my lecture, firstly I have a brief self-introduction, also I shared recommended things in China (my home country) and my impressions about Japan to deepen the connections with the students.

Then I started my scientific part from some common questions: Do you know what the forest coverage of Japan is? Should we cut trees? After sharing some information/data with them, I concluded that we could cut and use the trees in a sustainable way.

I showed them the common usage of trees/woods, and then showed them the micro-nano scale of wood (trees→wood chips→cellulose fiber→cellulose nanofiber). Then I told them what other materials in nature contains cellulose nanofiber and also other nanofiber (chitin nanofiber) exists in nature. After that, I presented the advantages of these nanofibers in nature, commercial products with these nanofibers, market size of the cellulose nanofibers, and challenges of using these nanofibers.

Then I moved to my research about development of sustainable electronics using these nanofibers in nature. With a brief introduction, I showed them the possible applications such as

photo sensor, supercapacitor and humidity sensor.

Finally, I answered some of their questions I already received after they watching some videos about cellulose nanofibers. (About 50 min)

Then it came to the question and answer part. (About 20 min)

During the lecture, I also brought and showed many samples for better understanding, such as wood chips, cellulose fiber, cellulose nanofiber, transparent cellulose nanofiber paper, nanocellulose knife, original and white cicada shells, and cellulose-derived humidity sensors.

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

For better understanding the nanofibers in nature, the English teacher in Kyoto Municipal Kyoto Kogakuin Senior High School and I have discussed much. I searched 3 videos about cellulose nanofibers and prepared some questions about the videos, then the teacher showed these videos in December gave me the feedbacks from students. I added the content according to the students' feedbacks when I was preparing my presentation. Moreover, a foreign teacher in the high school checked whether the English in my PPT file was difficult or not for the high school students, and a science teacher prepared a class about my topic ahead of time.

Both the teachers in the high school and I valued this lecture and put lots of effort, which I appreciate very much.

- Impressions and comments from the lecture assistant (講義補助者の方から、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。):

I was motivated by the vitality from the students. Hope to have another chance to participate in this kind of activities.