

日本千葉縣船橋高校 化材系交流

新聞萬花筒

【記者吳雪儀淡水校園報導】化材系於18日熱情接待來自日本千葉縣船橋高校的科學菁英班，師生共21人至本校進行交流。船橋高校領隊老師秋本行治指稱，本校是唯一在臺參訪的綜合型大學。此次參訪由化材系主任林國廣親自接待，他表示：「這是船橋高校第二次到本校參訪，透過這樣的機會，讓本系學生更加國際化。」

船橋高校一行人上午參與化材系的8項實驗課程，由化材系學生負責操作講解，並讓高校生參與操作，實際體驗大學實驗課。

下午則由高校生針對他們的13種研究以海報方式呈現，除了以英文介紹外，還有學生自製道具講解分享。第一次來臺灣的船橋高校二年級村田寬斗很感謝化材系師生的招待，並表示：「化工的實驗及英文簡報，能訓練自己與外國人互動，提升英文的能力。」化材三黃威智對其中一組蟑螂研究印象深刻：「系上推動這個活動，除了和日本學生相互學習交流外，對我而言更是既有趣又具挑戰性的難得經驗。」



[Introduction]
We used a grapefruit peel makes it easier to remove a protein film from a smartphone. That is because of limonene, which exist in grapefruit or lemon peels. So we proved this limonene has some effect on the protein film. Based on this assumption, we started to extract limonene closely.



[Preparatory experiment 1]
Soak various objects into limonene to see how they change. When we soaked rubber band, it clearly showed different reaction from the others. The rubber band swelled inside the limonene.



...a polymer. ... such as ... can dissolve high ... observed in the rubber band. This means that swelling of the rubber was uniquely caused by limonene.

[Purpose]
- Quantifying change in strength of rubber bands caused by the effect of limonene.
- Analyze pure latex (the main ingredient of rubber bands) under the same conditions, in order to check an effect of additives in the latex.

[Test 1]
1. Color 4 rubber bands respectively.
2. Soak them separately in limonene using test tubes.
2. Hang the rubber bands by one on a...

[Result 2]
The latex's strength bands when ... No holes, ... under the electron microscope. Several cracks might be the ...



[Consideration]
- As for rubber bands, it was swollen and returns to its original shape. This weakness is a chemical change.