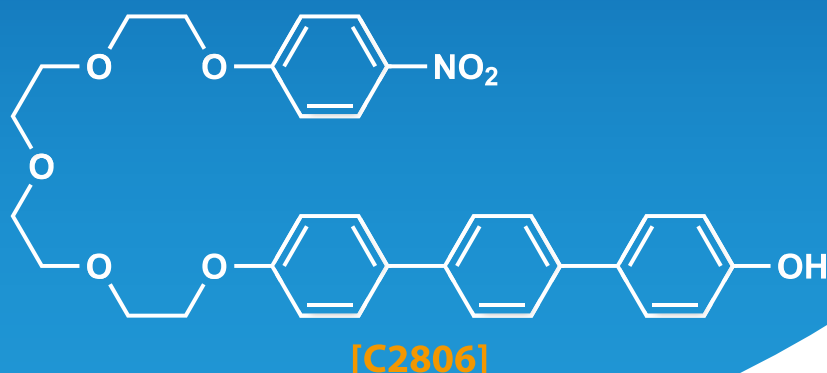


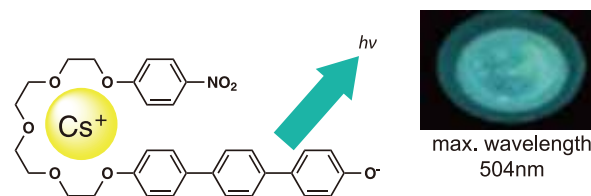
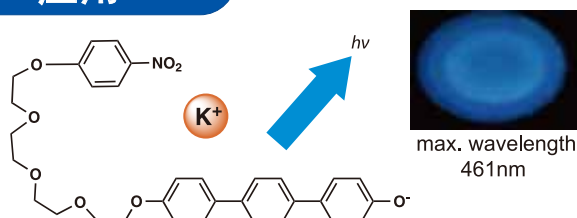
用于微量铯可视化的荧光探针



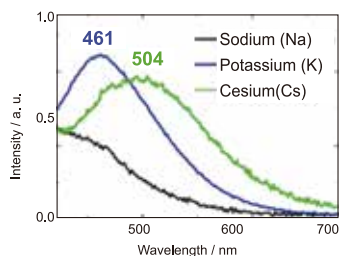
优势

- 土壤中含有的粒子状铯离子可通过绿色荧光检出
- 植物的茎截面含有的粒子状铯离子可实现可视化

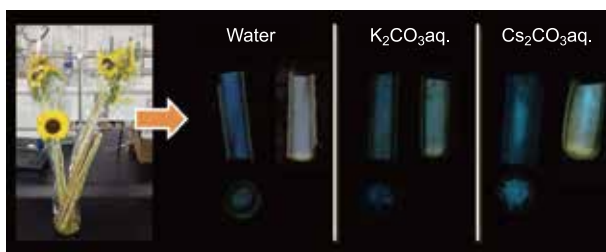
应用



The complex structures and fluorescence properties of C2806 with K⁺ or Cs⁺ (UV irradiation (365 nm) after addition of a drop of methanol)



Fluorescence spectra of a mixture of C2806 with alkali metals. (Numbers indicate the wavelength of the fluorescence maximum.)



The photographs show distribution of K⁺ and Cs⁺ in freeze-dried sunflower stem cross sections under UV irradiation (365 nm). (image on the left: spraying only with methanol, images on the right: spraying with C2806 in methanol)

Images and data courtesy of the National Institute for Material Science

C2806 Cesium Green 50mg

该产品在Katsuhiko Ariga博士的指导下实现了商品化。

T. Mori, M. Akamatsu, K. Okamoto, M. Sumita, Y. Tateyama, H. Sakai, J. P Hill, M. Abe, K. Ariga, *Sci Technol. Adv. Mater.* **2013**, *14*, 015002. Patent pending from National Institute for Material Science

使用C2806进行铯粒子可视化检测的方法。

1. 固态下铯离子的可视化

配制0.02wt%的C2806的甲醇溶液。
将该溶液滴加到 Cs_2CO_3 粒子上。
在紫外光下(365nm)可观测到粒子上发射出绿色的荧光。

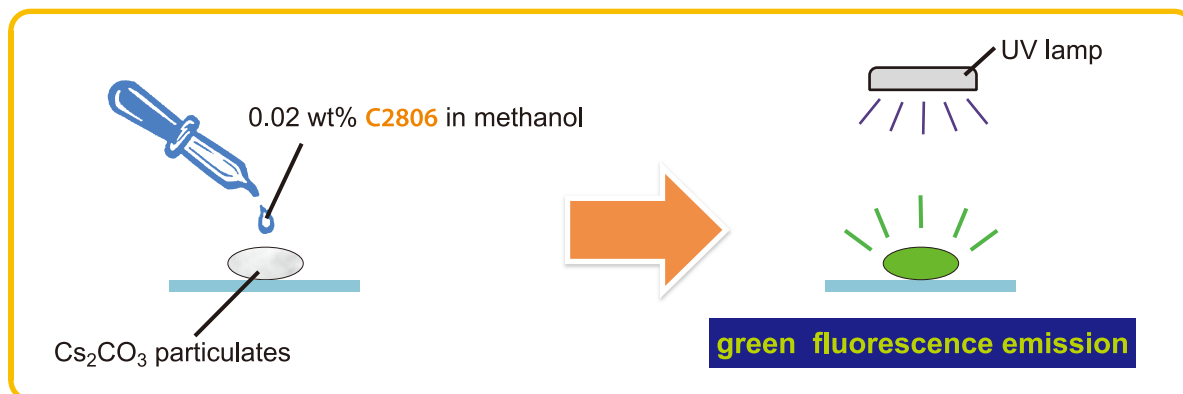


Fig.1 Visualization of cesium ion in a solid state

2. 植物中铯离子的可视化

将向日葵的茎浸入 Cs_2CO_3 (1 wt%)的水溶液中几天以吸收铯离子。经冷冻干燥，截面处喷洒C2806的甲醇溶液。在紫外光下(365nm)仅吸收铯离子的茎部可观测到绿色的荧光。

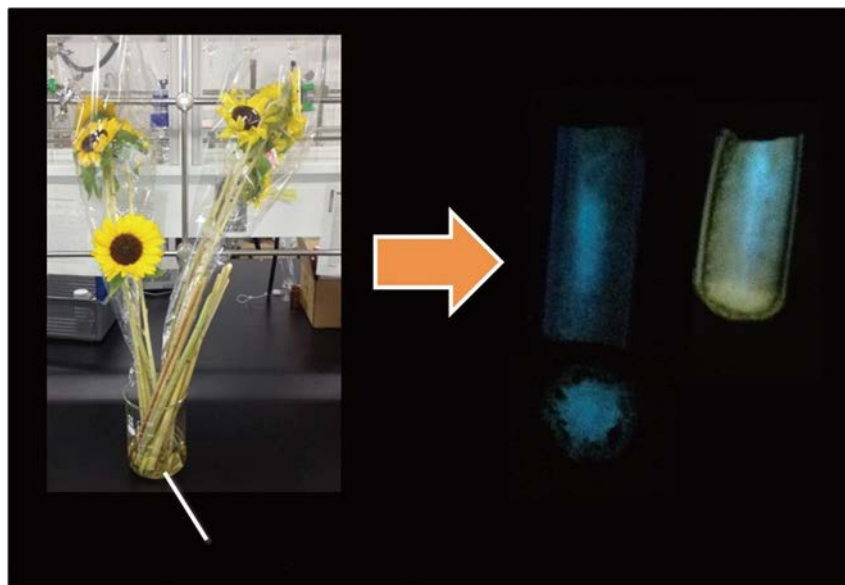


Fig.2 Visualization of cesium ion in plants