

# Environmental Science: Advances

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Elemental answers



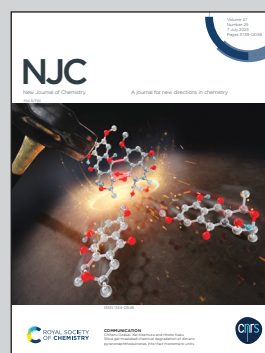


Showcasing research from Professor Hiroshi Nakazawa's laboratory, Department of Chemistry, Osaka Metropolitan University, Osaka, Japan, and significant contribution from Katsuaki Kobayashi (OMU) and Norihisa Fukaya (AIST).

Catalytic hydrosilylation using an immobilized Co-terpyridine complex activated by inorganic salts and its application in a flow reactor

The activation of a dibromo Co-terpyridine complex immobilized on a stationary phase (**Co(tpy)Br<sub>2</sub>@SiO<sub>2</sub>**) as a hydrosilylation catalyst was investigated. K<sub>2</sub>CO<sub>3</sub> was found to show advantages in terms of activator ability, stability, cost, and easy-handling. Both **Co(tpy)Br<sub>2</sub>@SiO<sub>2</sub>** and K<sub>2</sub>CO<sub>3</sub> were easily separable from the hydrosilylated product, which contributed to achieving a reusable hydrosilylation system in both the catalyst and activator, and the **Co(tpy)Br<sub>2</sub>@SiO<sub>2</sub>/K<sub>2</sub>CO<sub>3</sub>** system was found to be applicable in a continuous flow reactor as a catalyst in the stationary phase.

As featured in:



See Katsuaki Kobayashi, Norihisa Fukaya and Hiroshi Nakazawa, *New J. Chem.*, 2023, **47**, 11784.