

# RSC Applied Polymers

**The application of polymers,  
both natural and synthetic**

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**Fundamental questions  
Elemental answers**





**Showcasing research from Professor Liu's laboratory,  
Shandong University, Jinan, China.**

Ultrafast and highly selective gold recovery with high capture capacity from electronic waste by upconversion of a silsesquioxane-based hybrid luminescent aerogel

Ultrafast, highly selective and adsorption of gold with high capacity from electronic-waste is assisted by *in-situ* photocatalytic reduction of Au(III) through a hybrid upconversion luminescent aerogel. The fabrication of functional aerogel devices by chemical grafting of porous material with a soft polymer matrix overcomes the limitations of difficult molding of porous material and expands its applications.

**As featured in:**



See Masafumi Unno,  
Hongzhi Liu *et al.*,  
*J. Mater. Chem. A*, 2024, 12, 5679.