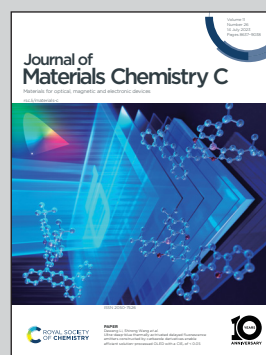


**Showcasing research from the group of Dr Dániel Zámbo at Centre for Energy Research, Institute of Technical Physics and Materials Science, Hungary.**

Position of gold dictates the photophysical and photocatalytic properties of  $\text{Cu}_2\text{O}$  in  $\text{Cu}_2\text{O}/\text{Au}$  multicomponent nanoparticles

Boosting the colloidal stability and photocatalytic activity of copper(I)-oxide nanooctahedra *via* synthesising  $\text{Cu}_2\text{O}/\text{Au}$  multicomponent nanoparticles in outstanding shape, size, and compositional uniformity. The form and position of gold in the heterooctahedra essentially govern the photophysical properties of copper(I)-oxide, enabling the separation of the photoexcited carriers. Revealing the optical properties, energy landscape as well as photocatalytic activity of the particles synthesized under powerful control over the parameters is demonstrated.

**As featured in:**



See Dániel Zámbo *et al.*,  
*J. Mater. Chem. C*, 2023, **11**, 8796.