

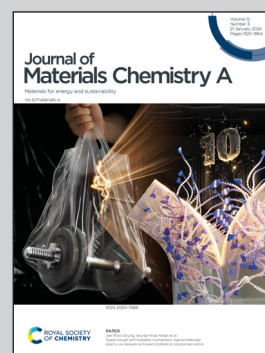


**Highlighting the synthesis of the first COF based on BOPHY dye (IEC-2) for solar-driven hydrogen production by a group of researchers led by Dr Víctor A. de la Peña O'Shea from the Photoactivated Processes Unit at IMDEA Energy, Spain.**

A covalent organic framework based on BOPHY/ $\text{TiO}_2$  hybrid photocatalysts for solar driven hydrogen production

Light-driven chemistry opens the door to one promising solution towards a sustainable alternative in the current energy scenarios. Here, we describe a new and robust BOPHY-COF, highly active for direct solar hydrogen production. The high performance of the hybrid heterojunction IEC-2@T-10 results in an enhancement of the photonic efficiency, increased by 36% with respect to benchmark  $\text{TiO}_2$ . These result lay the basis for the use of these materials in the development of solar energy technologies.

### As featured in:



See Teresa Naranjo, Marta Liras, Víctor A. de la Peña O'Shea *et al.*, *J. Mater. Chem. A*, 2024, 12, 1476.