

# Environmental Science journals

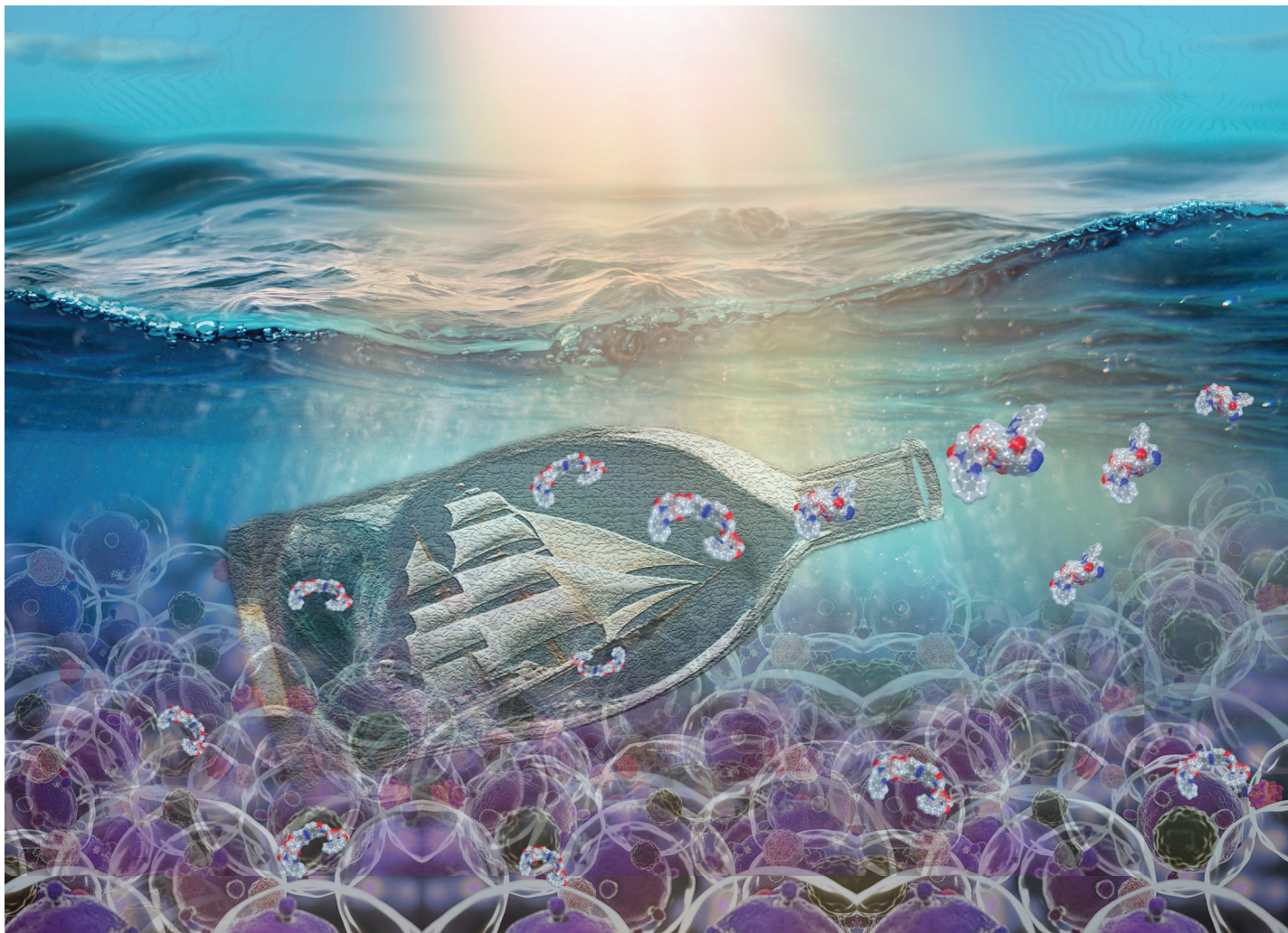
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Elemental answers



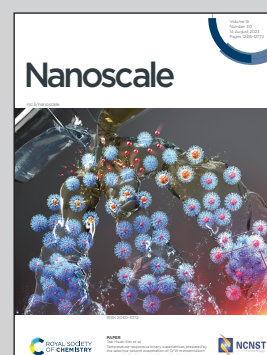


**Dr. Botella's group at Nanomedicine Laboratory of Institute of Chemical Technology (Universitat Politècnica de Valencia-Spanish National Research Council) Valencia, Spain. Artwork by Katya Cuevas.**

Light-activated controlled release of camptothecin by engineering porous materials: the *ship in a bottle* concept in drug delivery

A change in nanoparticle phototherapy is proposed by shifting photoswitching activity from the vehicle to the load. In this “ship in a bottle” concept, photoswitchable camptothecin containing an azobenzene functionality was loaded into porous silica nanoparticles with pores which limit its release when in the *trans* form. Release of the prodrug was accomplished by irradiation with UV light to convert *trans* isomers back to *cis*. This *cis-trans* photoisomerization allowed safe and precise delivery.

### As featured in:



See Christopher C. Landry, Pablo Botella *et al.*, *Nanoscale*, 2023, 15, 12506.