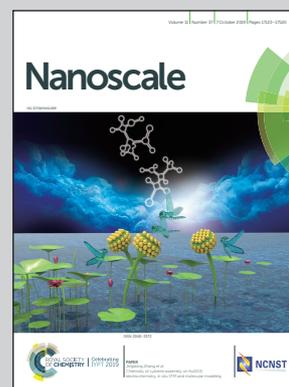


Showcasing research from the Institute for the Study of Nanostructured Materials, Italian National Research Council, Bologna, Italy.

Epitaxial multilayers of alkanes on two-dimensional black phosphorus as passivating and electrically insulating nanostructures

The image represents a van der Waals heterostructure of two-dimensional black phosphorus (2D bP) and epitaxial multilayers of linear alkane molecules, studied through theoretical modeling and atomic force microscopy. Also shown is the double functionality of the epitaxial multilayers: i) protection of 2D bP from oxidation in air; ii) electrical insulation of 2D bP. This work is developed within the project PHOSFUN (ERC Advanced Grant to Maurizio Peruzzini, G.A. 670173) by the ISMN and ICCOM institutes of the Italian National Research Council, and in collaboration with the University of Nottingham.

As featured in:



See Marco Brucale, Stefano Toffanin *et al.*, *Nanoscale*, 2019, **11**, 17252.