

RSC Applied Polymers

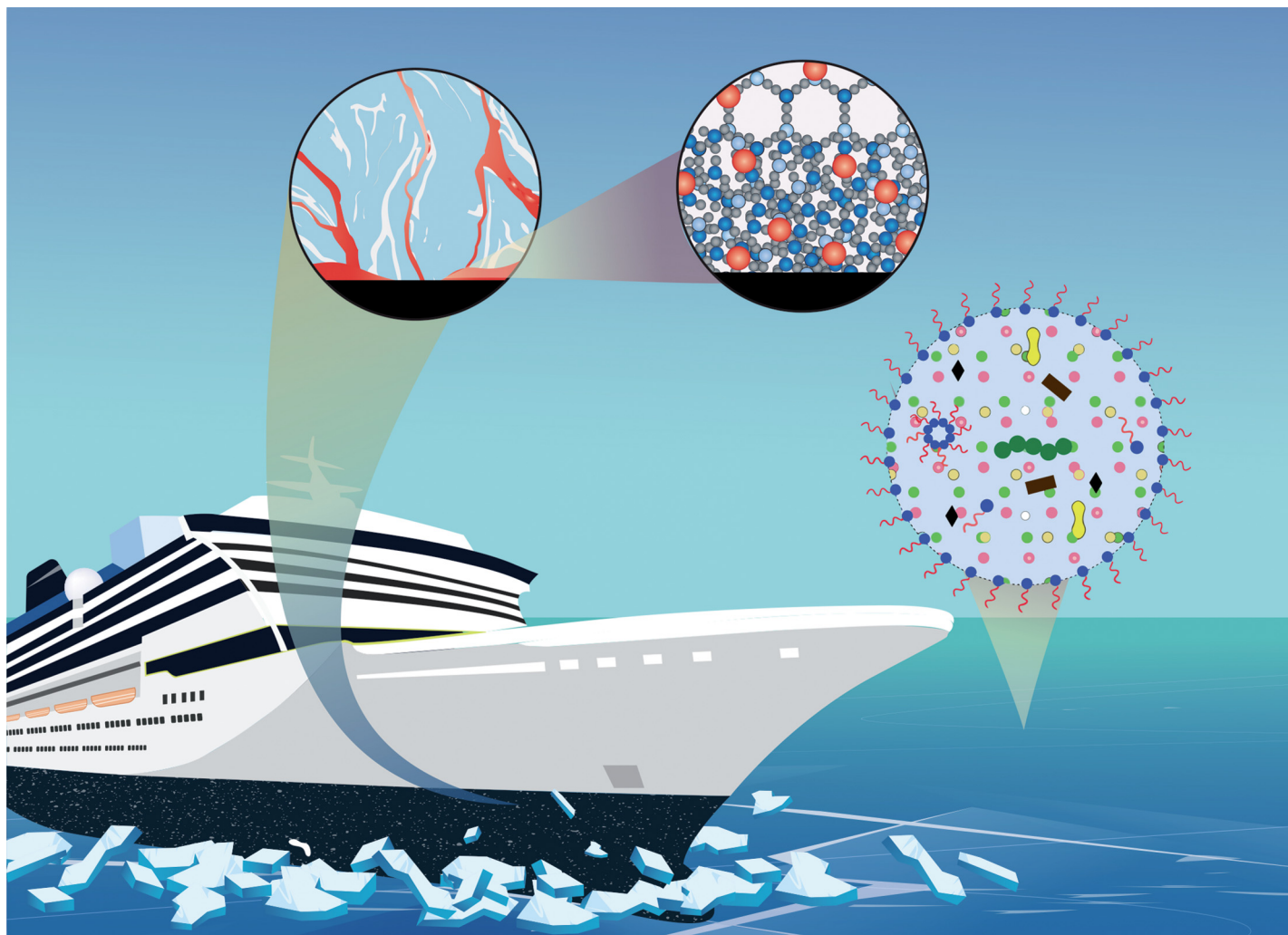
GOLD
OPEN
ACCESS

The application of polymers,
both natural and synthetic

Interdisciplinary and open access

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Fundamental questions
Elemental answers

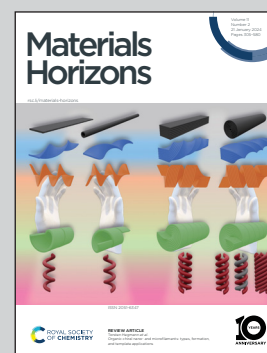


Showcasing research from Professor Sushant Anand's laboratory at the Department of Mechanical and Industrial Engineering, University of Illinois Chicago, Illinois, USA.

Adhesion of impure ice on surfaces

Impurities in ice reduce its adhesion to surfaces at moderate subcooling but result in intense adhesion at deeply subcooled temperatures. Slow freezing tends to entirely expel contaminants, forming purer ice. Conversely, rapid freezing leads to partial expulsion and an *in situ* formation of an impurity-rich liquid layer at the ice–solid interface, which weakens adhesion. Impurities also induce disorder in the adjacent ice layer, further diminishing its stickiness to surfaces.

As featured in:



See Sushant Anand *et al.*,
Mater. Horiz., 2024, **11**, 419.