

A Journal of the German Chemical Society

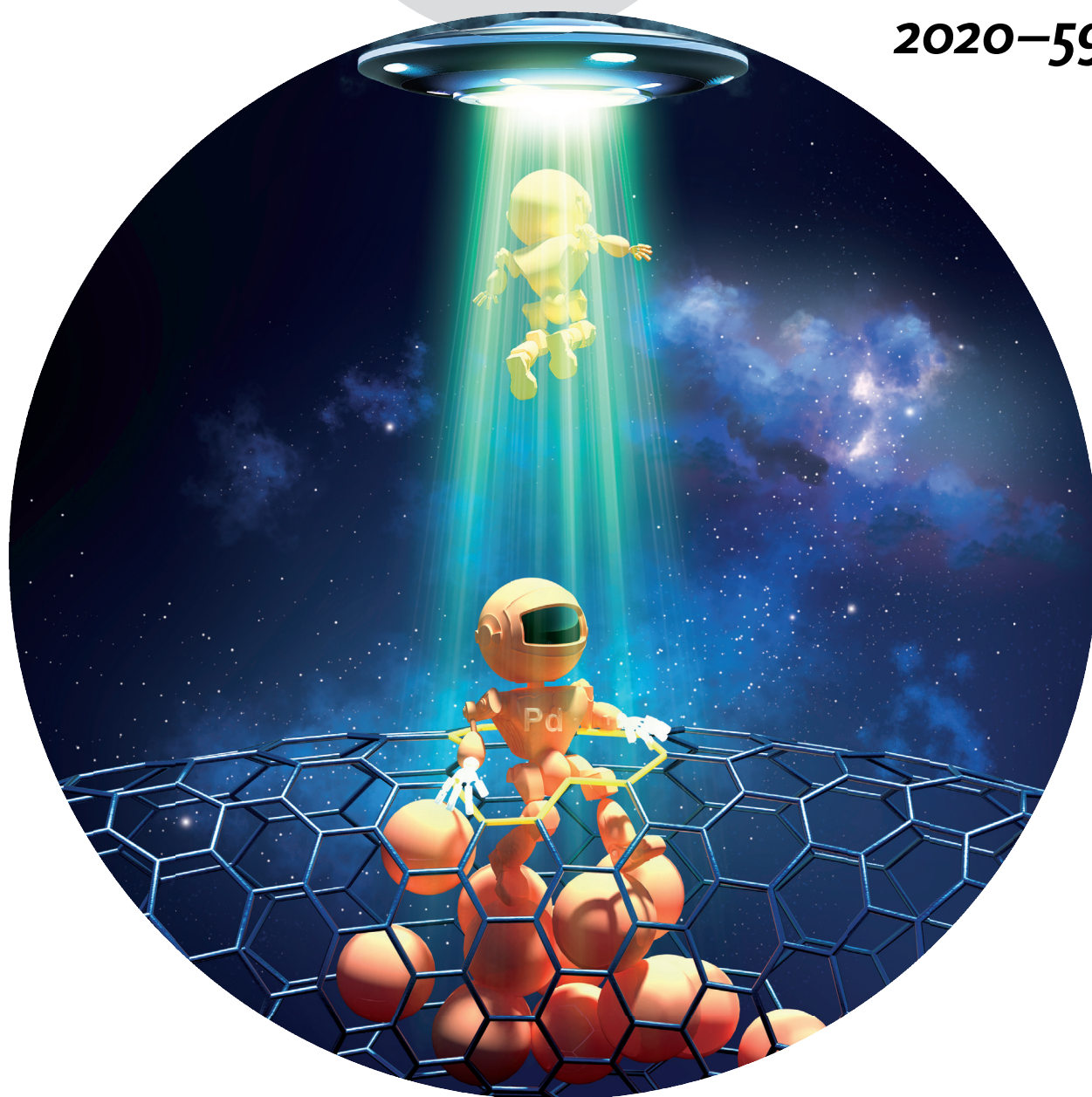
# Angewandte Chemie

GDCh

International Edition

www.angewandte.org

2020–59/51



## Atomic vacancies in graphenic lattices ...

... can be applied as sieve pores for sieving atoms, ions, and molecules. In their Communication on page 22922, A. Khlobystov, U. Kaiser, and co-workers report the direct observation of the permeation of single palladium atoms passing one-by-one through a vacancy defect in a single-walled carbon nanotube by transmission electron microscopy. The curvature of the carbon lattice drives the permeation in the direction from the concave to the convex side of the membrane due to the differences in metal-carbon bonding between opposite sides.

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