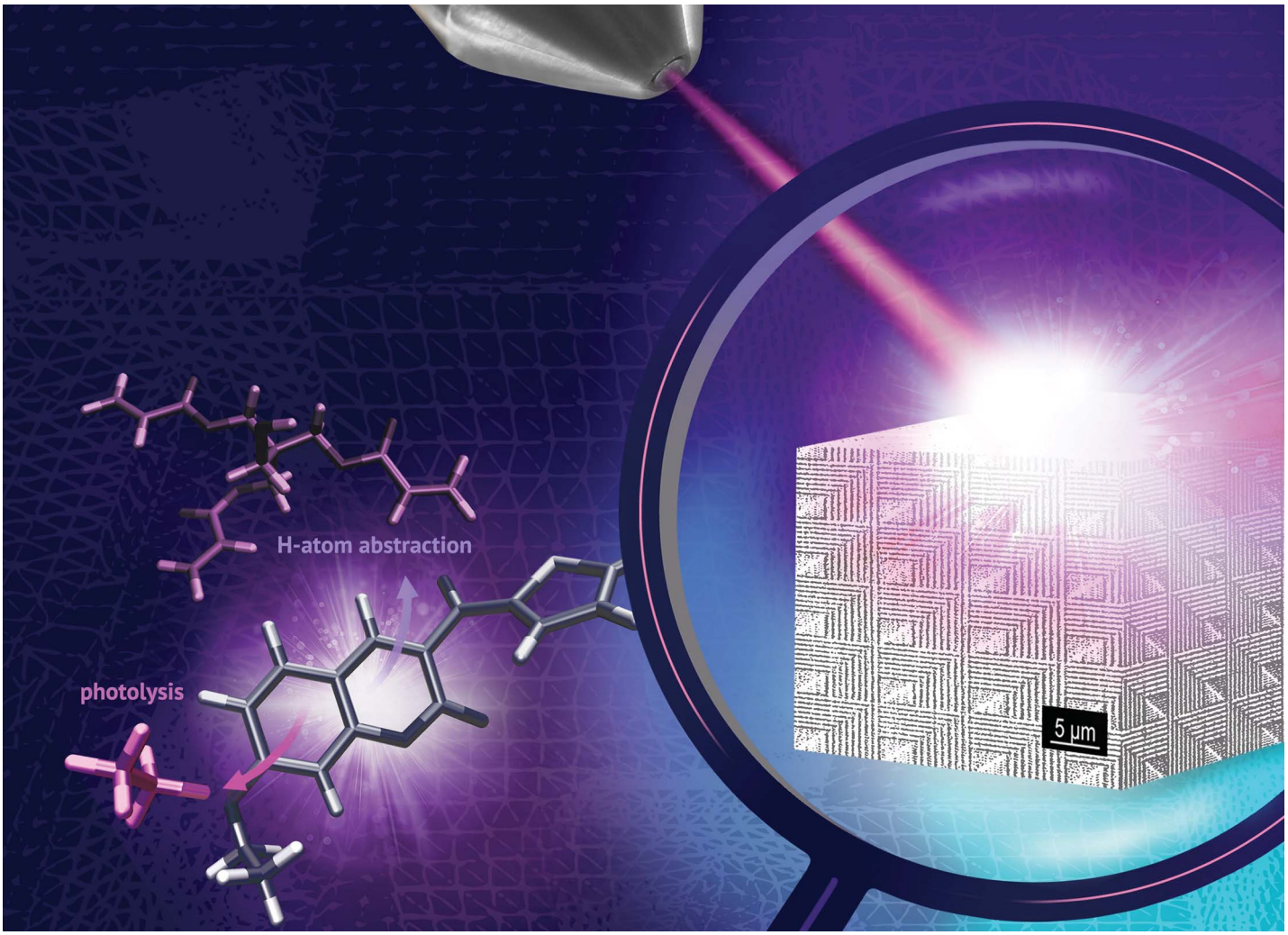

Showcasing the collaborative research coordinated by the Institute of Nanotechnology within the Cluster of Excellence "3D Matter Made to Order" at the Karlsruhe Institute of Technology, Germany.

Two- and three-photon processes during photopolymerization in 3D laser printing

The performance of a photoinitiator is key to control efficiency and resolution in 3D laser nanoprinting. Upon light absorption, a cascade of competing photophysical processes leads to photochemical reactions toward radical formation that initiates free radical polymerization. This study explores the mechanisms of photoactivation and radical formation during 3D laser printing using photoresists with a DETC photoinitiator. The role of DETC in high triplet states during radical polymerization is revealed.

As featured in:

See Mariana Kozlowska *et al.*, *Chem. Sci.*, 2024, **15**, 12695.

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