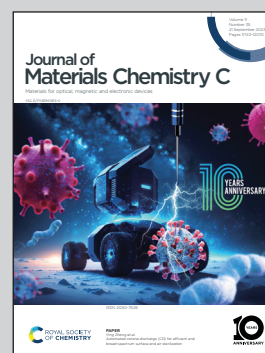


Showcasing research from Dr Jianguo Zhao, Nanjing University of Information Science and Technology (NUIST), and Dr Tao Tao, Nanjing University (NJU), Nanjing, China.

Rapid growth of a 24 mm<sup>2</sup> scale hexagonal boron nitride crystal in Ni-Cr solution

Using a specially designed cooling protocol, the growth time of hBN crystal in Ni-Cr solution was reduced from 68.88 to 49.17 hours. High quality hBN crystals with a thickness of 300 μm and a 24 mm<sup>2</sup> exfoliated hBN film were achieved. A metal-semiconductor-metal type photodetector responsive to the vacuum ultraviolet (185 nm) but not to UVC (254 nm) was fabricated, achieving a photocurrent density of 500 pA cm<sup>-1</sup> and a signal-to-noise ratio of more than 2 orders of magnitude at 10 V.

As featured in:



See Jianguo Zhao, Tao Tao, Jianhua Chang *et al.*, *J. Mater. Chem. C*, 2023, **11**, 11851.