

# RSC Sustainability

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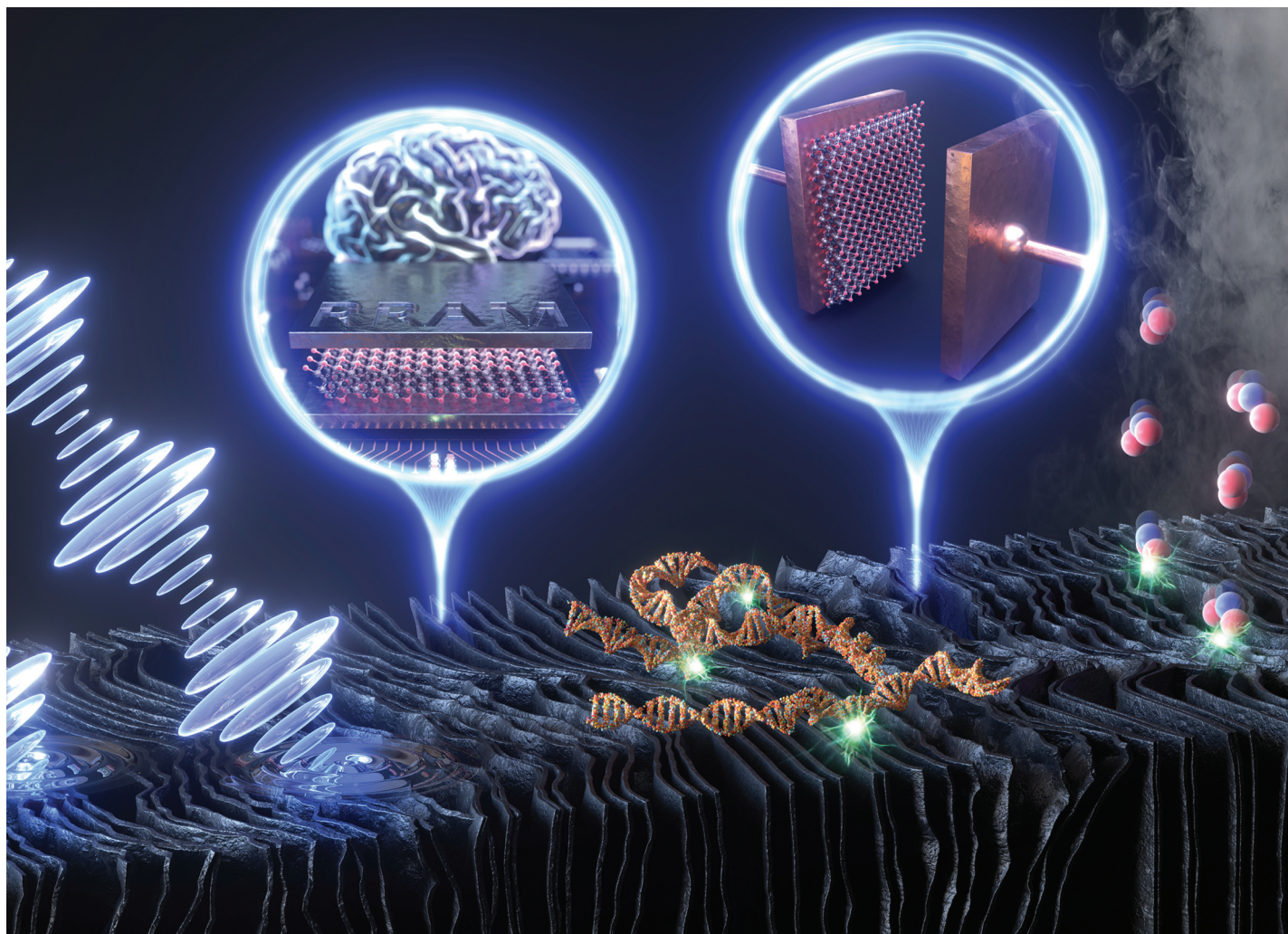
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Fundamental questions  
Elemental answers



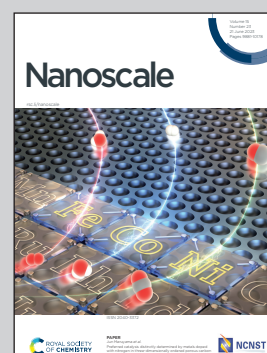


Showcasing research from Prof. Deok-kee Kim's group at the Department of Electrical Engineering and Convergence Engineering for Intelligent Drone, Sejong University, Seoul, Korea, and Dr. Tukaram D. Dongale's group at Computational Electronics and Nanoscience Research Laboratory, School of Nanoscience and Biotechnology, Shivaji University, Kolhapur, India.

Recent progress in energy, environment, and electronic applications of MXene nanomaterials

The diverse aspects of MXene, including its structures, synthesis processes, and electrical, mechanical, optoelectronic, and magnetic properties, were covered in this review article. We reviewed MXene-based supercapacitors, gas sensors, strain sensors, biosensors, electromagnetic interference shielding, microwave absorption, memristor, and artificial synaptic devices from an application standpoint.

### As featured in:



See Deok-kee Kim,  
Tukaram D. Dongale *et al.*,  
*Nanoscale*, 2023, **15**, 9891.