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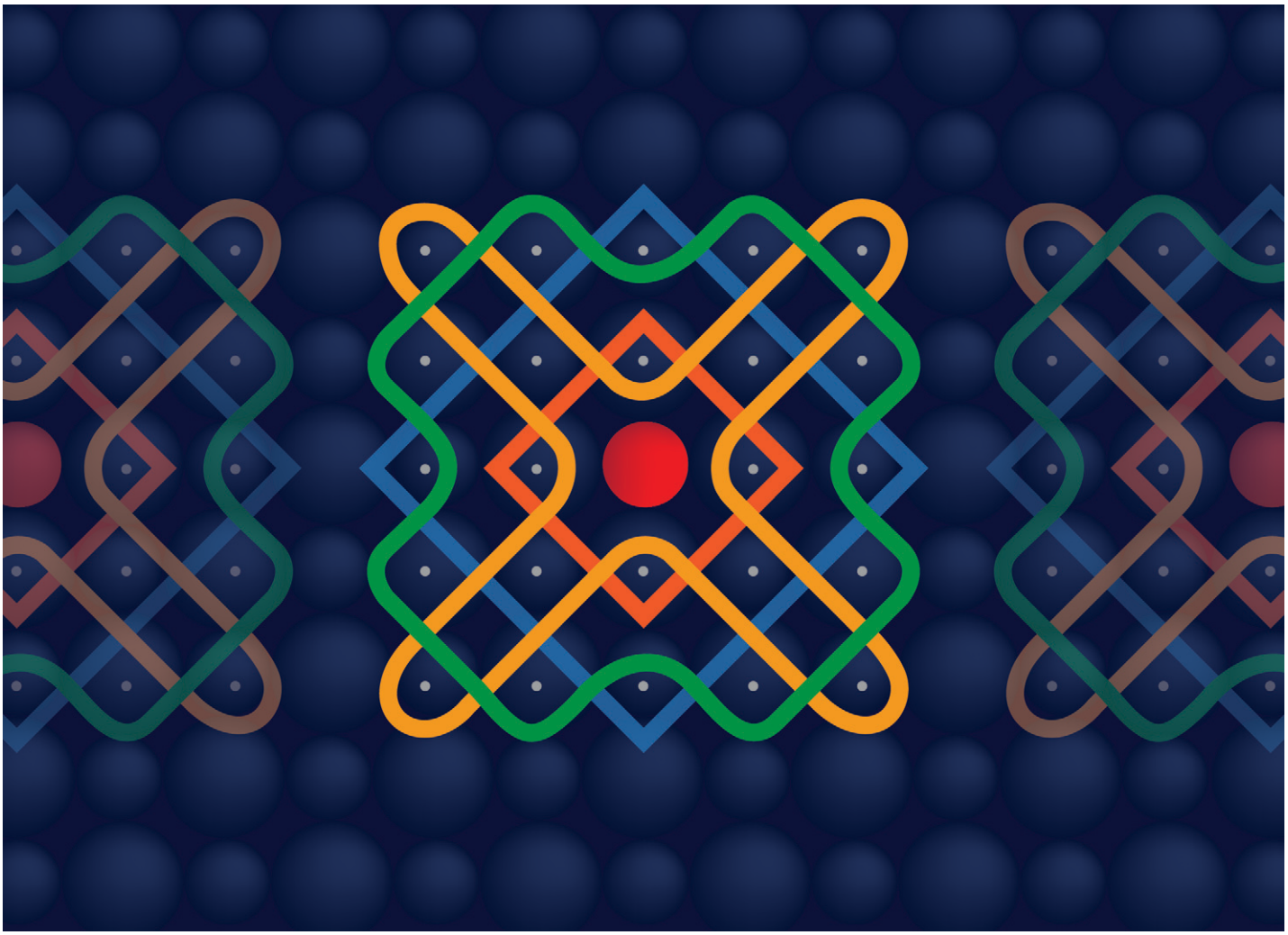

Highlighting the experiments from the Cat-Sense group, Department of Chemistry, Indian Institute of Technology Palakkad, Kerala and National Chemical Laboratory, Pune in India.

Oxidation of ethylene by Cu/TiO_2: reducibility of Cu^{2+} in TiO_2 as a possible descriptor of catalytic efficiency

The background of the image shows the crystal face of TiO_2. The red spheres that stand out represent Cu^{2+} dopant. The colourful geometrical pattern is inspired from the traditional folk-art form in south India called Kolam. It involves dots arranged in a specific manner like a grid around which free flowing strokes are drawn in a calculated manner to form an intricate pattern. The colourful pattern around the red sphere represents the multifunctional role of Cu^{2+} in the catalytic oxidation of ethylene.

Image credit: "Madhubaani Designs, Palakkad"

As featured in:

See Dinesh Jagadeesan *et al.*, *Catal. Sci. Technol.*, 2023, **13**, 2330.

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