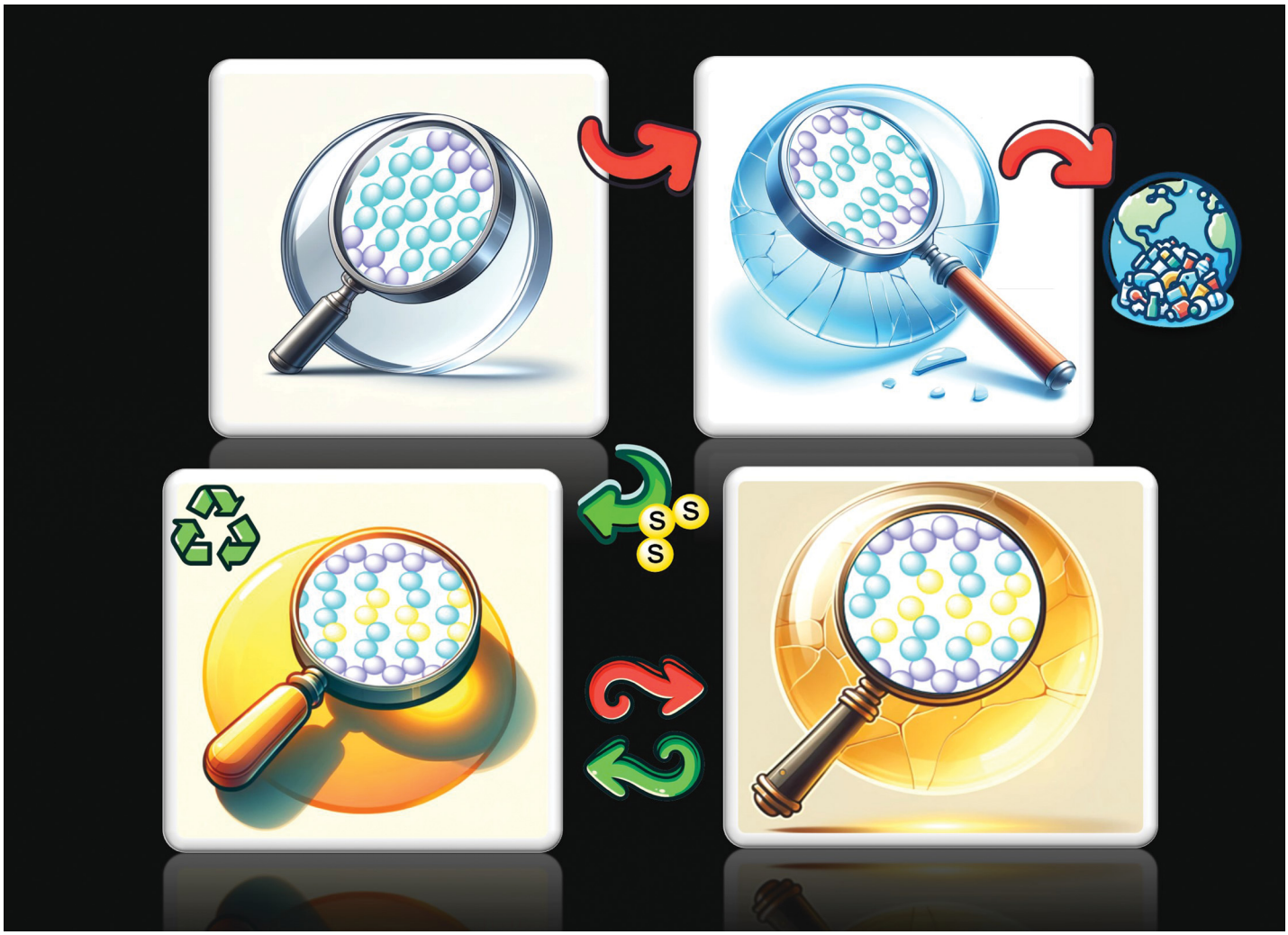

Showcasing research from Dr Erin M. Leitao's laboratory, School of Chemical Sciences, University of Auckland, Auckland, New Zealand.

Converting commercial-grade silicone into a vitrimer using elemental sulfur

This research enhances the sustainability and repairability of commercial-grade silicone by incorporating dynamic S–S cross-links through the addition of elemental sulfur. By partially intercepting the platinum-catalysed hydrosilylation process with sulfur vulcanisation, a vitrimeric material is formed. The modified silicone retains its desirable properties while gaining self-healing capability, representing a significant advancement in the development of sustainable silicone.

This image was created by Mahsa Rokni with the assistance of AI.

As featured in:

See Erin M. Leitao *et al.*, *Mater. Adv.*, 2024, **5**, 5433.

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