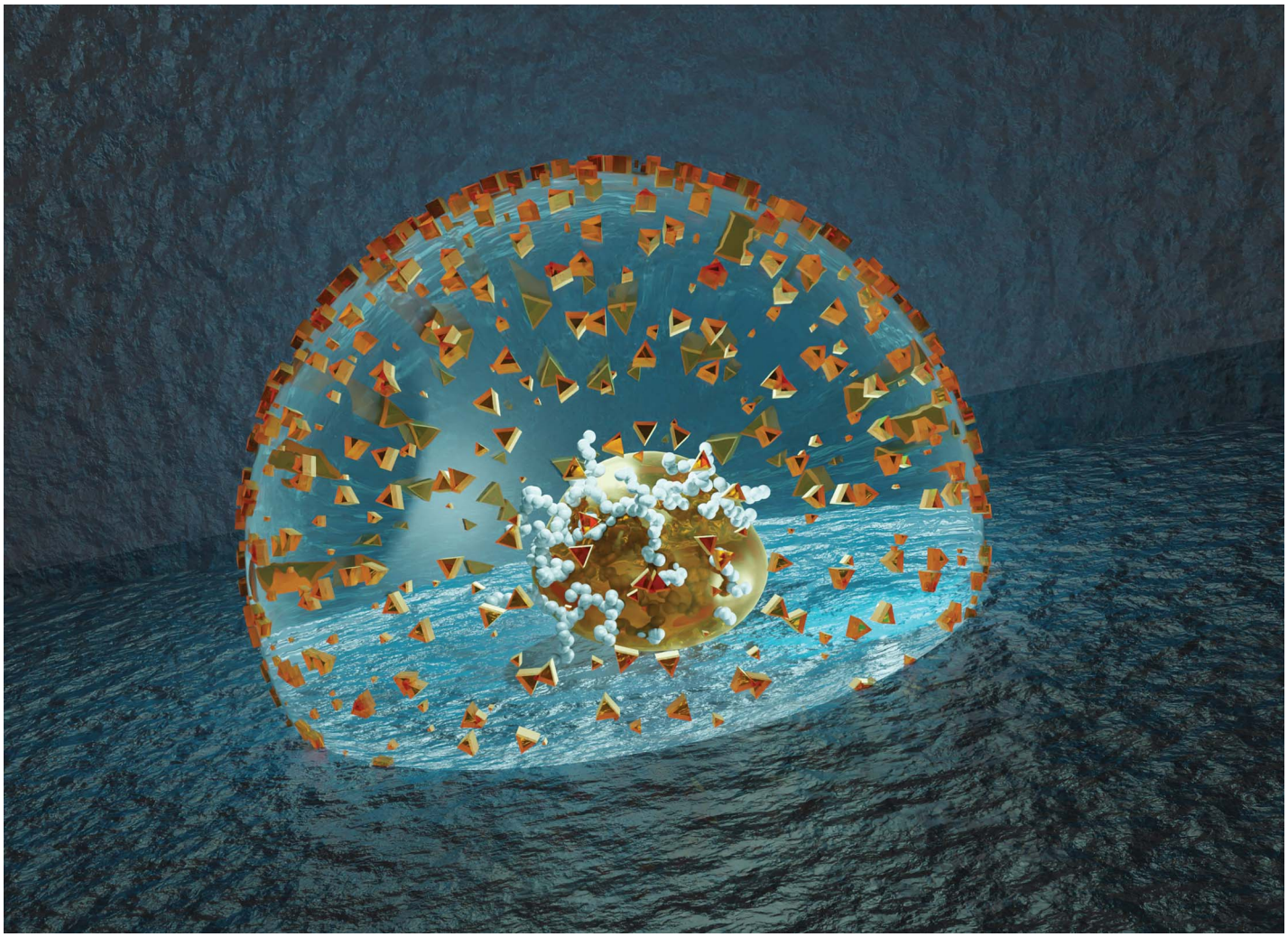

Showcasing research from Dr. Tenjimbayashi's Team, Research Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS), Tsukuba, Japan.

Particulate gel liquid marbles

We suffer from unwanted liquid adhesion to the solid as it decreases the mass transportation efficiency. Non-sticking droplets formed by covering its surface with low wettability particles, namely liquid marble, have been proposed; however, liquid marble is mechanically weak and has restricted practical use. Here, nonsticking water droplets stabilized by particulate gel, namely "particulate gel liquid marbles (PGLMs)," are prepared *via* mechanochemistry. PGLM exhibited excellent compression/impact stability owing to the viscous dissipation of PGs. Moreover, the shape reconfigurability of PG enabled the plastic deformation of PGLMs.

As featured in:

See Mizuki Tenjimbayashi and Ryota Tamate, *J. Mater. Chem. A*, 2024, **12**, 16343.

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