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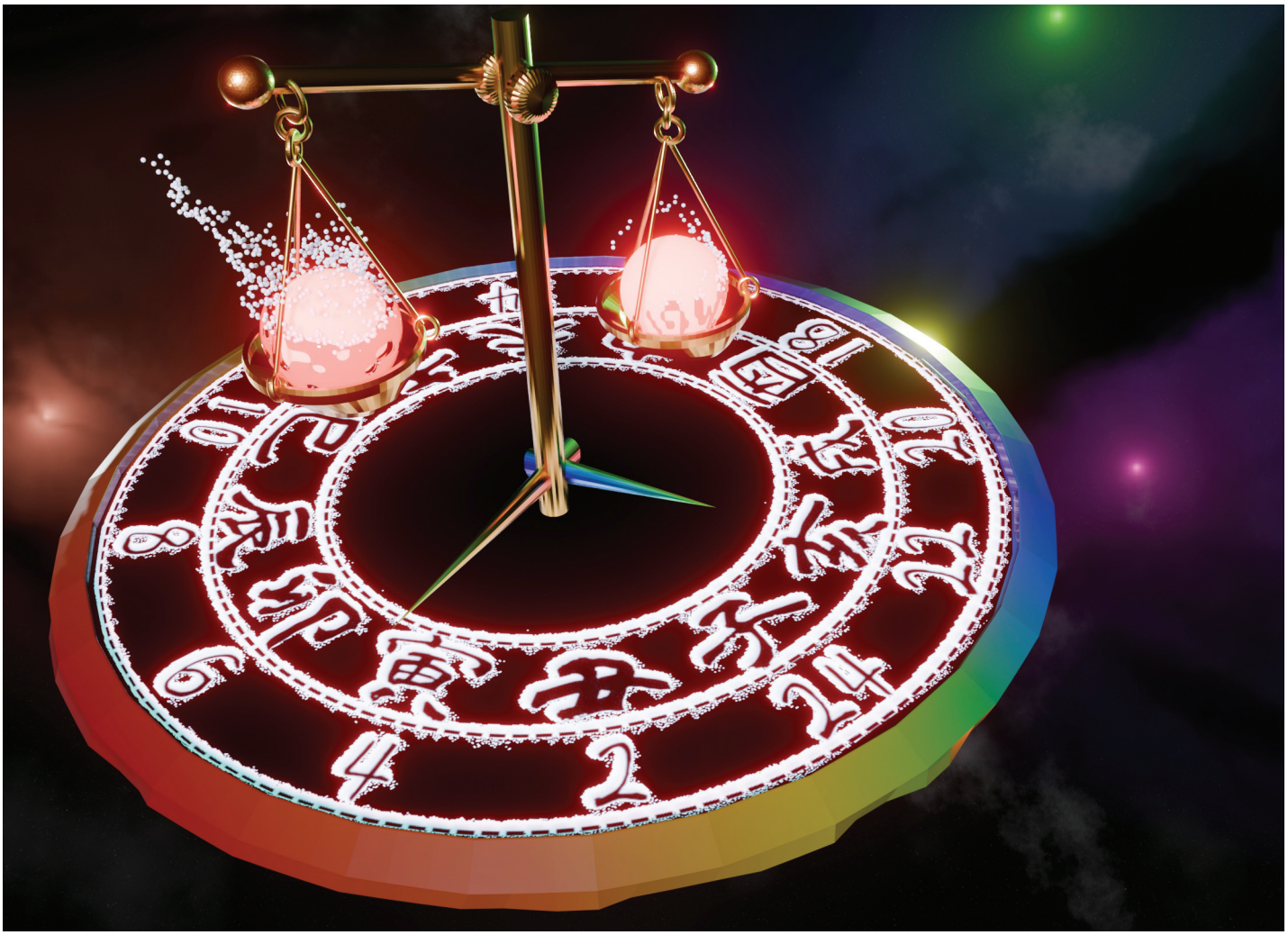
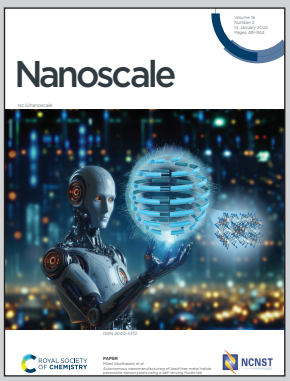


Showcasing research from Dr. Jonathan Veinot's group at the Chemistry Department, University of Alberta, Canada.

Not all silicon quantum dots are equal: photostability of silicon quantum dots with and without a thick amorphous shell

Colloidal silicon quantum dots (SiQDs) offer eco-friendly alternatives for optical applications, yet their structure's impact on photostability remains underexplored. This study compares the photostability of SiQDs with an amorphous shell with over-etched counterparts of equivalent dimensions that bore a negligible shell. UV degradation studies reveal a negative impact from the amorphous shell on the photoluminescence quantum yield. Our findings enhance comprehension of SiQD stability and offer insights into creating more sustainable luminescent systems.

As featured in:



See Jonathan G. C. Veinot *et al.*, *Nanoscale*, 2024, **16**, 592.

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