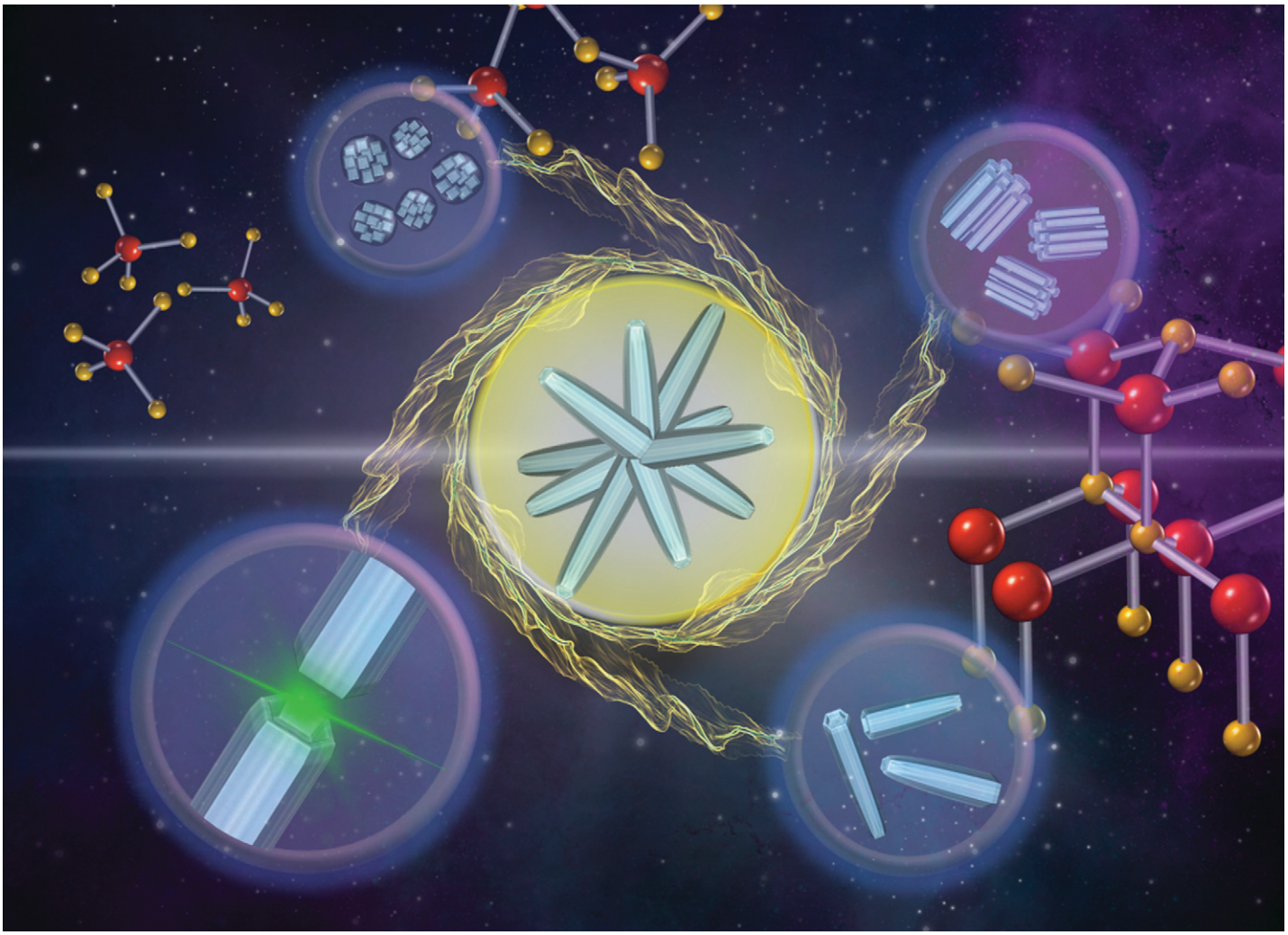

Showcasing research from Professor Tetsuro Soejima's laboratory, Department of Applied Chemistry, Kindai University, Osaka, Japan.

Formation mechanism of radial mesocrystals consisting of ZnO nanowires

This study has shown that radial-ZnO mesocrystals are formed via a series of the steps involving generation of ZnO in $Zn(OH)_2$ phase, the growth of thin ZnO nanowires, coalesce of the thin ZnO nanowires to a thick tapered ZnO nanowire, coupling of the ZnO nanowires to a linear dimer, and self-assembling of the dimers to a radial mesocrystal. Further, it has been revealed that the self-assembling of the ZnO nanowires generates radial-ZnO mesocrystals due to the balance between the interparticle van der Waals attractive force and electrostatic repulsive force.

As featured in:

See Hiroaki Tada, Tetsuro Soejima *et al.*, *CrystEngComm*, 2023, **25**, 5796.

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