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## Colloidal Quantum Dots

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Deadline for manuscript  
submissions:  
**closed (30 June 2019)**

### Message from the Guest Editor

Dear Colleagues,

Colloidal quantum dots (CQDs), semiconductor nanocrystals synthesised by solvent-based chemistry, have been studied intensively over the last three decades. Their small scale, typically a few nanometres, results in an optical band gap that is size-tunable by the quantum confinement effect. This property, coupled with their photo-stability and the low-cost and facile methods by which they can be produced and processed, has prompted their study as the light absorbing or emitting species for a number of important applications. CQDs can be produced as homogeneous crystals of single materials and alloys, or as more complex structures. A shell or shells of different material can be grown around the original nanocrystal subsequent to its synthesis to produce a core/shell CQD. This spherical heterostructure enables the engineering of carrier wavefunctions, and hence of the photo-physical properties of the CQD.

Dr. David Binks  
*Guest Editor*



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## Message from the Editor-in-Chief

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