ABSTRACT

Synthesis Of Highly Fluorescing Semiconducting Core-Shell Nanoparticles Based On IB, IIB, IIIA, VIA Elements Of The Periodic Classification

The invention relates to a method to prepare highly fluorescing semiconducting core-shell nanoparticles based on IB, IIB, IIIA, VIA elements of the periodic classification comprising several steps comprising the preparation of a core reaction mixture, heating the core reaction mixture above nucleation threshold temperature for core nucleation, optionally bringing and holding the core reaction mixture at a reaction temperature for core growth, addition of a shell reaction mixture, heating and / or holding reaction mixture for shell growth and cooling down the reaction mixture to prevent further particle growth. Highly fluorescing semiconducting core-shell nanoparticles obtainable by the method of the invention and their use as an ink component or in electronic devices is also described.

Figure 1