**Fluorescent Nanomaterials for Optical Bioimaging and Beyond.**

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Fluorescent nanoparticles have received intense scientific attention and offer promising applications in many fields from optoelectronic devices to cancer treatment1. The development of robust mass-scale nanoparticle synthesis methods is one of key materials challenges in moving towards fluorescent nanoparticles for commercialization and advanced applications.2 In this talk, I will summarize our work on green and scalable synthesis of fluorescent nanoparticles, including biomass-derived carbon dots3, subcritical water technology for nanonization of organic compounds4 and preparation of inorganic nanoparticles by high-gravity process intensification technology5. The applications of related fluorescent nanoparticles in biomedical imaging and therapy from cells to animals will be introduced. A brief overview of this exciting field, along with some challenges and opportunities, will also be presented.

**References**

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