1. Record Nr. UNINA9910367745303321 Autore Benelli Giovanni Titolo Green Synthesis of Nanomaterials MDPI - Multidisciplinary Digital Publishing Institute, 2019 Pubbl/distr/stampa **ISBN** 3-03921-787-9 Descrizione fisica 1 electronic resource (224 p.) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Nanomaterials possess astonishing physical and chemical properties. They play a key role in the development of novel and effective drugs, catalysts, sensors, and pesticides, to cite just a few examples. Notably, the synthesis of nanomaterials is usually achieved with chemical and physical methods needing the use of extremely toxic chemicals or high-energy inputs. To move towards more eco-friendly processes, researchers have recently focused on so-called "green synthesis", where microbial, animal-, and plant-borne compounds can be used as cheap reducing and stabilizing agents to fabricate nanomaterials. Green synthesis routes are cheap, environmentally sustainable, and can lead to the fabrication of nano-objects with controlled sizes and

shapes—two key features determining their bioactivity.