1. Record Nr. UNINA9910367752103321 Autore Zeng Yong Titolo Micro- and Nanofluidics for Bionanoparticle Analysis / Yong Zeng, Xuanhong Cheng Pubbl/distr/stampa MDPI - Multidisciplinary Digital Publishing Institute, 2019 Basel, Switzerland:,: MDPI,, 2019 **ISBN** 9783039215959 3039215957 Descrizione fisica 1 electronic resource (138 p.) Soggetti History of engineering and technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Bionanoparticles such as microorganisms and exosomes are recoganized as important targets for clinical applications, food safety, and environmental monitoring. Other nanoscale biological particles, includeing liposomes, micelles, and functionalized polymeric particles are widely used in nanomedicines. The recent development of microfluidic and nanofluidic technologies has enabled the separation and analysis of these species in a lab-on-a-chip platform, while there are still many challenges to address before these analytical tools can be adopted in practice. For example, the complex matrices within which these species reside in create a high background for their detection. Their small dimension and often low concentration demand creative strategies to amplify the sensing signal and enhance the detection speed. This Special Issue aims to recruit recent discoveries and developments of micro- and nanofluidic strategies for the processing and analysis of biological nanoparticles. The collection of papers will hopefully bring out more innovative ideas and fundamental insights to

overcome the hurdles faced in the separation and detection of

bionanoparticles.