Record Nr. UNINA9910557292403321 Autore Cho Byungjin Titolo Preparation and Properties of 2D Materials Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2020 1 electronic resource (142 p.) Descrizione fisica Soggetti History of engineering & technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Since the great success of graphene, atomically thin-layered Sommario/riassunto nanomaterials, called two dimensional (2D) materials, have attracted tremendous attention due to their extraordinary physical properties. Specifically, van der Waals heterostructured architectures based on a few 2D materials, named atomic-scale Lego, have been proposed as unprecedented platforms for the implementation of versatile devices with a completely novel function or extremely high-performance, shifting the research paradigm in materials science and engineering. Thus, diverse 2D materials beyond existing bulk materials have been widely studied for promising electronic, optoelectronic, mechanical, and thermoelectric applications. Especially, this Special Issue included the recent advances in the unique preparation methods such as exfoliation-based synthesis and vacuum-based deposition of diverse 2D materials and also their device applications based on interesting physical properties. Specifically, this Editorial consists of the following

materials

two parts: Preparation methods of 2D materials and Properties of 2D