Record Nr. UNINA9910688471203321 Geopolymers and Other Geosynthetics / / edited by Mazen Alshaaer Titolo and Han-Yong Jeon Pubbl/distr/stampa London:,:IntechOpen,,2020 Descrizione fisica 1 online resource (180 pages): illustrations 624.18923 Disciplina Soggetti Geosynthetics Inorganic polymers Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Sommario/riassunto Geopolymers are applied to material classes that are chemically transformed from low crystallinity aluminusilicates to threedimensional inorganic polymers (tectosilicates). The resulting material has properties similar to natural minerals, so it is called artificial rock. However, these materials exhibit a chemical composition and mineralogical structure similar to feldspar, feldspathoidal, and zeolites consisting of a polymeric Si-O- Al framework, with a microcrystalline or an amorphous structure. Although geopolymers have attractive engineering and environmental characteristics, there are some challenges in commercializing these materials. In this book, these challenges will be addressed along with introducing the functional

geopolymers as an effective approach to commercializing these

materials and making them economically feasible.