

1. Record Nr.	UNINA9910580208503321
Autore	Fernandez Ana Maria
Titolo	Clay Mineral Transformations after Bentonite/Clayrocks and Heater/Water Interactions from Lab and Large-Scale Tests
Pubbl/distr/stampa	Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022
Descrizione fisica	1 online resource (388 p.)
Soggetti	Biology, life sciences Research and information: general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>This book, "Clay Mineral Transformations after Bentonite/Clayrocks and Heater/Water Interactions from Lab and Large-Scale Tests", covers a broad range of relevant and interesting topics related to deep geological disposal of nuclear fuels and radioactive waste. Most countries that generate nuclear power have developed radioactive waste management programmes during the last 50 years to emplace long-lived and/or high-level radioactive wastes in a deep underground repository in a suitably chosen host rock formation. The aim is to remove these wastes from the human environment. If a site is properly chosen, a repository system comprising both natural and engineered barriers would provide a high level of protection from the toxic effects of the waste. The 17 papers published in this Special Issue show that bentonites and clayrocks are an essential component of the multi-barrier system ensuring the long-term safety of the final disposal of nuclear waste. The efficiency of such engineered and natural clay barriers relies on their physical and chemical confinement properties, which should be preserved in the long-term.</p>