1. Record Nr. UNINA9910825218603321

Autore	Geissler Daniel Hermann
Titolo	Short-circuit withstand capability of power transformers / / von Daniel Hermann Geissler
Pubbl/distr/stampa	Gottingen, [Germany] : , : Cuvillier Verlag, , 2016 ©2016
ISBN	3-7369-8332-8
Edizione	[1. Auflage.]
Descrizione fisica	1 online resource (164 pages) : illustrations (some color)
Disciplina	621.314
Soggetti	Electric transformers Transformers
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.

2. Record Nr. UNINA9910254212703321

Autore	Ochs Michael (Geochemist)
Titolo	Radionuclide and Metal Sorption on Cement and Concrete / / by Michael Ochs, Dirk Mallants, Lian Wang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-23651-2
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (322 p.)
Collana	Topics in Safety, Risk, Reliability and Quality, , 1566-0443 ; ; 29
Disciplina	666.94
Soggetti	Materials science Nuclear energy Waste management Building materials Thermodynamics Heat engineering Heat - Transmission Mass transfer Characterization and Evaluation of Materials Nuclear Energy Waste Management/Waste Technology Building Materials Engineering Thermodynamics, Heat and Mass Transfer
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1 Introduction and objective -- 2 Cementitious materials and their sorption properties -- 3 Sorption values for chlorine and iodine -- 4 Sorption values for caesium, strontium, radium and silver -- 5 Sorption values for calcium, nickel and carbon -- 6 Sorption values for thorium, uranium, plutonium, neptunium and protactinium -- 7 Sorption values for americium -- 8 Sorption values for selenium, molybdenum and technetium -- 9 Sorption values for palladium and lead -- 10 Sorption values for niobium and tin -- 11 Sorption values for hydrogen and beryllium -- 12 Sorption values for zirconium -- Annex Summary

tables with sorption data. .

Sommario/riassunto

Cementitious materials are being widely used as solidification/stabilisation and barrier materials for a variety of chemical and radioactive wastes, primarily due to their favourable retention properties for metals, radionuclides and other contaminants. The retention properties result from various mineral phases in hydrated cement that possess a high density and diversity of reactive sites for the fixation of contaminants through a variety of sorption and incorporation reactions. This book presents a state of the art review and critical evaluation of the type and magnitude of the various sorption and incorporation processes in hydrated cement systems for twenty-five elements relevant for a broad range of radioactive and industrial wastes. Effects of cement evolution or ageing on sorption/incorporation processes are explicitly evaluated and quantified. While the immobilisation of contaminants by mixing-in during hydration is not explicitly addressed, the underlying chemical processes are similar. A quantitative database on the solid/liquid distribution behaviour of radionuclides and other elements in hydrated cement systems is established on the basis of a consistent review and re-evaluation of literature data. In addition to recommended values, all underlying original experimental data and key experimental info rmation are provided, which allows users to trace the given recommendations or to develop their own set of key values. This database is closely tied to the safety analysis of near surface disposal of radioactive waste in Belgium. It focuses on radioelements, toxic stable elements and heavy metals, which makes it relevant for investigations involving the interaction of radioactive and conventional contaminants with cement-based barriers.