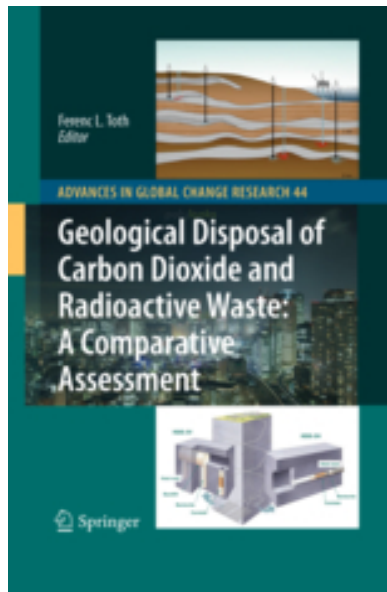


## NEW SPRINGER BOOK TITLE



# Geological Disposal of Carbon Dioxide and Radioactive Waste: A Comparative Assessment

Edited by:

**Ferenc L. Toth**, *International Atomic Energy Agency (IAEA),  
Vienna, Austria*

Fossil fuels will remain the backbone of the global energy economy for the foreseeable future. The contribution of nuclear energy to the global energy supply is also expected to increase. With the pressing need to mitigate climate change and reduce greenhouse gas emissions, the fossil energy industry is exploring the possibility of carbon dioxide disposal in geological media.

Geological disposal has been studied for decades by the nuclear industry with a view to ensuring the safe containment of its wastes. Geological disposal of carbon dioxide and that of radioactive waste gives rise to many common concerns in domains ranging from geology to public acceptance. In this respect, comparative assessments reveal many similarities, ranging from the transformation of the geological environment and safety and monitoring concerns to regulatory, liability and public acceptance issues. However, there are profound differences on a broad range of issues as well, such as the quantities and hazardous features of the materials to be disposed of, the characteristics of the targeted geological media, the site engineering technologies involved and the timescales required for safe containment at the disposal location.

There are ample opportunities to learn from comparisons and to derive insights that will assist policymakers responsible for national energy strategies and international climate policies.

### Keywords:

**Geological disposal**  
**Carbon dioxide**  
**Radioactive waste**  
**Climate change**  
**Energy technology**

**1st Edition., 2011,**  
**V, 620 p.,**  
**20 colour illustrations**  
**Hardcover**

**ISBN: 978-90-481-8711-9**

## Geological Disposal of Carbon Dioxide and Radioactive Waste: A Comparative Assessment

 edited by Ferenc L. Toth

### Table of Contents:

Preface **H.-H. Rogner** - Comparing the Geological Disposal of Carbon Dioxide and Radioactive Waste: Introduction and Overview **F. L. Toth** - Geological Media and Factors for the Long-term Emplacement and Isolation of Carbon Dioxide and Radioactive Waste **S. Bachu and T. McEwen** - Environmental Issues in the Geological Disposal of Carbon Dioxide and Radioactive Waste **J. M. West, R. P. Shaw and J. M. Pearce** - Risk Assessment, Risk Management and Remediation for the Geological Disposal of Radioactive Waste and Storage of Carbon Dioxide **P. Maul** - Monitoring Methods Used to Identify the Migration of Carbon Dioxide and Radionuclides in the Geosphere **B. Brunskill and M. Wilson** - Transport of Carbon Dioxide and Radioactive Waste **D. R. Gómez** - Engineering Challenges in the Geological Disposal of Radioactive Waste and Carbon Dioxide **J. P. Tshibangu K. and F. Descamps** - The Costs of the Geological Disposal of Carbon Dioxide and Radioactive Waste **F. L. Toth and A. Miketa** - Managing Liability: Comparing Radioactive Waste Disposal and Carbon Dioxide Storage **E. J. Wilson and S. Bergan** - Public Acceptance of Geological Disposal of Carbon Dioxide and Radioactive Waste: Similarities and Differences **D. M. Reiner and W. J. Nuttall** - Comparative Ethical Issues Entailed in the Geological Disposal of Radioactive Waste and Carbon Dioxide in the Light of Climate Change **D. A. Brown** - Psychological Perspectives on the Geological Disposal of Radioactive Waste and Carbon Dioxide **J. I. M. de Groot and L. Steg** - Comparative Assessment of Status and Opportunities for Carbon Dioxide Capture and Storage and Radioactive Waste Disposal in North America **C. M. Oldenburg and J. T. Birkholzer** - Comparing the Geological Disposal of Carbon Dioxide and Radioactive Waste in Western Europe **F. L. Toth, R. A. Roehrl, A. Miketa and N. Barkatullah** - Carbon Dioxide and Radioactive Waste in Central and Eastern Europe: A Regional Overview of Geological Storage and Disposal Potential **Zs. Hódossyné Hauszmann, Gy. Falus and P. Scholtz** - Comparison of the Geological Disposal of Carbon Dioxide and Radioactive Waste in European Russia **A. Cherepovitsyn and A. Ilinky** - Comparison between Geological Disposal of Carbon Dioxide and Radioactive Waste in China **J. Wang and Z. Pang** - Geological Disposal of Carbon Dioxide and Radioactive Waste in the Geotectonically Active Country of Japan **H. Koide and K. Kusunose** - The Geological Storage of Carbon Dioxide and Disposal of Nuclear Waste in South Africa **A. D. Surridge, M. Cloete and P. J. Lloyd** - Assessment of the Geological Disposal of Carbon Dioxide and Radioactive Waste in Brazil, and Some Comparative Aspects of their Disposal in Argentina **R. Heemann, J. M. Ketzer, G. Hiromoto and A. Scislewski**

**1st Edition, 2011, V, 620 p. 20 illus. in colour**  
**ISBN: 978-90-481-8711-9, List Price: €129.95 / US\$ 169.00**

### Order Now!

Yes, please send me  copies

- Please bill me  
 Please charge my credit card:  Eurocard/Access/Mastercard  Visa/Barclaycard/Bank/Americard  AmericanExpress

Number  Valid until

Available from  Springer Distribution Center GmbH Haberstr. 7 69126 Heidelberg Germany	Name
	Dept.
	Institution
	Street
	City / ZIP-Code
	Country
	Email
	Date ✕
	Signature ✕

► Call: +49 (0) 6221-345-4301 ► Fax: +49 (0) 6221-345-4229  
► Email: SDC-bookorder@springer.com

All € and £ prices are net prices subject to local VAT, e.g. in Germany 7% VAT for books and 19% VAT for electronic products. Pre-publication pricing: Unless otherwise stated, pre-pub prices are valid through the end of the third month following publication, and therefore are subject to change. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted.