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Nota di contenuto	1. Introduction to immobilisation -- 2. Nuclear decay -- 3. Contaminants and hazards -- -- 4. Heavy metals -- 5. Naturally occurring radionuclides -- -- 6. Background radiation -- -- 7. Nuclear waste regulations -- 8. Principles of nuclear waste management -- -- 9. Sources and characteristics of nuclear waste -- 10. Short-lived waste radionuclides -- -- 11. Long-lived waste radionuclides -- -- 12. Management and characterisation of radioactive waste -- -- 13. Pre-treatment of radioactive wastes -- -- 14. Treatment of radioactive wastes -- -- 15. Immobilisation of radioactive wastes in cement -- 16. Immobilisation of radioactive wastes in bitumen -- -- 17. Immobilisation of radioactive wastes in glass -- -- 18. New immobilising hosts and technologies -- 19. Nuclear waste disposal -- -- 20. Performance assessment
Sommario/riassunto	Safety and environmental impact is of uppermost concern when dealing with the movement and storage of nuclear waste. The 20 chapters in 'An Introduction to Nuclear Waste Immobilisation' cover all important aspects of immobilisation, from nuclear decay, to regulations, to new technologies and methods. Significant focus is given to the analysis of the various matrices used in transport: cement, bitumen and glass, with the greatest attention being given to glass. The last chapter

concentrates on the performance assessment of each matrix, and on new developments of ceramics and glass composite materials, thermochemical methods and in-situ metal matrix immobilisation. The book thoroughly covers all issues surrounding nuclear waste: from where to locate nuclear waste in the environment, through nuclear waste generation and sources, treatment schemes and technologies, immobilisation technologies and waste forms, disposal and long term behaviour. Particular attention is paid to internationally approved and worldwide-applied approaches and technologies. * Each chapter focuses on a different matrix used in nuclear waste immobilisation: Cement, bitumen, glass and new materials. * Keeps the most important issues surrounding nuclear waste - such as treatment schemes and technologies, and disposal - at the forefront