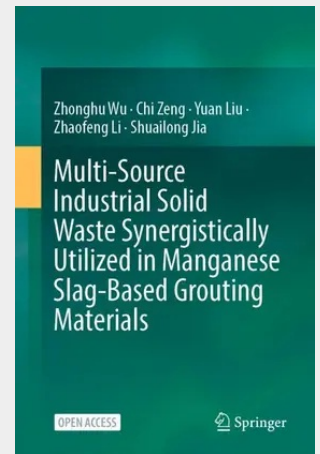


Multi-Source Industrial Solid Waste Synergistically Utilized in Manganese Slag-Based Grouting Materials

This open access book focuses on the synergistic utilization of multi-source industrial solid waste in manganese slag-based grouting materials. It presents key methods like high-temperature activation of electrolytic manganese slag (EMR), alkali excitation, and multi-scale characterization (XRD, SEM, MIP), along with optimized performance and environmental safety data of three grouting materials (EFGM, ESGM, ECGM). Featuring over 200 illustrations, 11 tables, and a COMSOL-based performance prediction model, it offers an engineering-oriented approach. Readers gain insights into solid waste recycling and grouting material R&D. It benefits researchers, engineers in environmental engineering, materials science, and geotechnical engineering.

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32,09 €

29,99 € (zzgl. MwSt.)

*vorbestellbar, Erscheinungstermin ca.
September 2026*

Artikelnummer: 9789819230204

Medium: Buch

ISBN: 978-981-9230-20-4

Verlag: Springer Nature Singapore

Erscheinungstermin: 30.08.2026

Sprache(n): Englisch

Auflage: Erscheinungsjahr 2026

Produktform: Gebunden

Gewicht: 510 g

Seiten: 213

Format (B x H): 160 x 241 mm

