



*Special Issue Reprint*

## **Research on Properties of Cement-Based Materials and Concrete**

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ISBN 978-3-7258-2575-2 (Hardback)

ISBN 978-3-7258-2576-9 (PDF)



The Special Issue "Research on Properties of Cement-Based Materials and Concrete" presents a collection of cutting-edge studies that will deepen our understanding of the behavior, durability, and performance of cement-based materials. The Issue covers a range of topics, from the design of high-ductility cementitious composites, hydration mechanisms, and microstructural evolution to the effects of various admixtures and innovative materials on concrete properties. Research on alkali-activated systems, electromagnetic protection systems, carbonation processes, and sustainable cement alternatives offer insights into improving the durability and environmental impact of construction materials. Several papers will be focused on enhancing the mechanical performance of concrete structures, such as shear strength and bending toughness, tensile ductility optimization and the use of polymer-modified materials. This collection of studies will reflect the latest advancements in both theoretical research and practical applications, making it a valuable resource for researchers and engineers aiming to innovate in the fields of cement-based materials and concrete technology.



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