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Nota di contenuto	Introduction to carbon dioxide sequestration--based cementitious construction materials / Fernando Pacheco-Torgal -- Carbon dioxide sequestration by direct mineralization of fly ash / Long Ji, Hai Yu -- Aqueous-based carbon dioxide sequestration / Sumit Chakraborty, Byung Wan Jo -- Carbon dioxide sequestration using steel slag--modeling and experimental investigation / Smitha Gopinath, Anurag Mehra -- Accelerated carbon dioxide sequestration / Shamsad Ahmad -- Methods for the assessment of carbon dioxide absorbed by cementitious materials / Pingping He, Caijun Shi, Chi S. Poon -- Carbon dioxide sequestration in magnesium-based binders / Cise Unluer -- Carbon dioxide sequestration on steel slag / Liwu Mo -- Carbon dioxide sequestration by phosphogypsum based procedure / Luis Esquivias, Victor Morales-Florez, Alberto Santos -- Carbon dioxide sequestration on biocement-based composites / Mondem S. Reddy, Sumit Joshi -- Carbon dioxide sequestration on recycled aggregates / Bao Lu, Caijun Shi, Jianlan Zheng, Tung-Chai Ling -- Carbon dioxide sequestration by alkali-activated materials / Jian Zhang, Caijun Shi, Ning Li, Zuhua Zhang, Nima Farzadnia -- Carbon dioxide sequestration on fly ash/waste glassalkali-based mortars with recycled aggregates : compressive strength, hydration products, carbon footprint, and cost analysis / Mohammad Mastali, Zahra Abdollahnejad, Fernando

Pacheco-Torgal -- Carbon dioxide sequestration of fly ash alkaline based mortars with recycled aggregates and different sodium hydroxide concentrations : properties, durability, carbon footprint, and cost analysis / Mohammad Mastali, Zahra Abdollahnejad, Fernando Pacheco-Torgal -- Carbon dioxide sequestration of fly ash alkaline-based mortars containing recycled aggregates and reinforced by hemp fibers : mechanical properties and numerical simulation with a finite element method / Mohammad Mastali, Zahra Abdollahnejad, Fernando Pacheco-Torgal -- Carbon dioxide sequestration of fly ash alkaline-based mortars containing recycled aggregates and reinforced by hemp fibers : properties, freeze-thaw resistance, and carbon footprint / Mohammad Mastali, Zahra Abdollahnejad, Fernando Pacheco-Torgal -- Carbon dioxide sequestration on masonry blocks -- Pingping He, Caijun Shi, Chi S. Poon -- Carbon dioxide sequestration on composites based on waste wood / Lei Wang, Daniel C.W. Tsang.

Sommario/riassunto

Carbon Dioxide Sequestration in Cementitious Construction Materials provides an updated, state-of-the-art review on the development of cementitious construction materials based on carbon dioxide storage, which will have a major eco-efficient and economic benefit for the construction industry. Key chapters include methods for the assessment of carbon dioxide absorbed by cementitious materials, air and water-based carbon dioxide storage, carbon dioxide storage modeling, carbonation mechanisms, carbon dioxide storage on recycled aggregates, calcium, sodium and magnesium- based binders, properties and the durability of carbon dioxide based concrete.