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Titolo	Advanced Techniques for Testing of Cement-Based Materials / / edited by Marijana Serdar, Ivan Gabrijel, Dirk Schlicke, Stéphanie Staquet, Miguel Azenha
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Nota di contenuto	Acoustic emission characterization of fresh cement-based materials -- Ultrasonic techniques for determination and monitoring various properties of cementitious materials at early ages -- Elastic modulus measurement through ambient response method -- Monitoring the viscoelastic behaviour of cement based materials by means of repeated minute-scale-duration loadings -- Monitoring of the thermal and autogenous strain -- Testing concrete since setting time under free and re-strained conditions -- Adjustable restraining frames for systematic investigation of cracking risk and crack formation in rein-forced concrete under restrained conditions.
Sommario/riassunto	The book examines advanced, non-standardized techniques that have been developed for determining different properties of cement paste, mortar and concrete, and provides state-of-the-art information on methods for monitoring hydration-induced changes in cement-based

materials (CBMs). These methods are often nondestructive and allow quasi-continuous monitoring covering the time span from placement of the material to formation of a fully hardened cement composite. The book also presents various applications of acoustic emission for characterizing fresh concrete, recent developments in ultrasonic methods for characterizing CBMs since placement, application of ambient response methods for measuring elastic modulus, methods for determining deformational characteristics of CBMs since setting and methods for in situ measurements of stresses in concrete elements during hardening.