



Special Issue Reprint

Advances in Novel Precast Concrete Structures

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Edited by

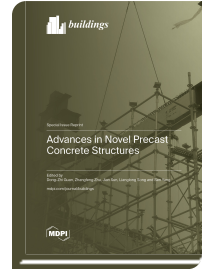
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With the growing global demand for construction, precast concrete structures have gained prominence due to their advantages in building quality, time and labor savings, cost efficiency, and environmental friendliness. A variety of precast systems have been developed, including emulative, pretensioning, rocking, and modular systems, while integration with emerging civil engineering technologies—such as novel energy-dissipators and advanced materials (e.g., FRP, UHPC, ECC)—and alignment with modern construction concepts (e.g., building industrialization, smart/intelligent construction) further underscore their significance as an active and prosperous research area in civil engineering. It presents high-quality research on the development and study of novel precast concrete structures, focusing on state-of-the-art progress, advancements, and emerging trends. The published articles cover (but are not limited to) topics such as high-efficiency emulative precast systems; the application of high-performance concrete in precast structures; novel precast structures with energy-dissipators; precast steel–concrete composite structures; precast underground concrete structures; modular concrete structures; the static and seismic performance of prefabricated element connections; analytical and design methods for precast structures; reliability and probabilistic safety assessment of precast structures; and the long-term performance and life-cycle cost analysis of precast structures.



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