





Special Issue Reprint

# **Advances in Sustainable Concrete System**

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In recent years, the implementation of sustainable concrete systems has been a topic of great interest in the field of construction engineering worldwide, as a result of the large and rapid increase in carbon emissions and environmental problems resulting from traditional concrete production and industry. For example, the uses of supplementary cementitious materials, geopolymer binder, recycled aggregate and industrial/agricultural wastes in concrete are all approaches to building a sustainable concrete system. However, such materials have inherent flaws due to their variety of sources, and exhibit very different properties compared with traditional concrete. Therefore, they require specific modifications in preprocessing, design, and evaluation before use in concrete. This reprint, entitled "Advances in Sustainable Concrete System", covers a broad range of advanced concrete research in environmentally friendly concretes, cost-effective admixtures, and waste recycling, specifically including the design methods, mechanical properties, durability, microstructure, various models, hydration mechanisms, and practical applications of solid wastes in concrete systems.





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