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Advances of Chemical Admixtures for Modern Concrete

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Message from the Guest Editors

Dear Colleagues,

As an essential component of concrete, different types of chemical admixtures have been widely applied to improve properties. Chemical admixtures enable the manufacture and construction of high-performance ready-mix and precast concrete. By incorporating admixtures, the rheological property (workability), setting and hardening process, mechanical property, volume stability, and durability of concrete can be modified or improved through the modification of the micro-scale interface (e.g., particle surface, liquid–vapor interface) and microstructure of concrete.

In this Special Issue, advances in both traditional chemical admixtures and “nano” admixtures are highlighted and discussed, including the design, preparation, and mechanism investigation of admixtures, as well as the performance (as mentioned above) modification and improvement of modern concrete.

The keywords are as follows:

- concrete admixture
- rheology
- mechanical properties
- durability
- shrinkage reduction
- microstructure
- hydration



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Special Issue



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Message from the Editor-in-Chief

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