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Hydrological Performance of Green Roofs

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Message from the Guest Editors

Urban hydrology is characterized by short lag times, low peak reduction, and low evapotranspirative losses. Whereas the hydrological problems arising in cities were initially and easily transported toward the city boundaries. One such solution in temperate climates is green roofs. It seems generally accepted that green roofs successfully retain small rainfall events, but that for the less well-studied large rainfall events green roofs need to be designed for use in combination with other measures, or to be redesigned to allow for more storage of water (so-called blue-green roofs). An open question is the effect of the type of roof vegetation on the storage emptying time and water quality. Roof water management may influence vegetation and the potential of roofs to contribute to biodiversity. This Special Issue aims to present to what extent knowledge on blue-green roofs is available; to what extent model and/or engineering approaches are available, and to what extent experimental evidence supports and illustrates these changing requirements.











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