Special Issue

Technique Advances in Renewable Energy Based Desalination System

Message from the Guest Editor

The world's oceans are vital not only as a source of sustenance and livelihood but also for their role in regulating the climate and supporting diverse ecosystems. However, marine and coastal environments are increasingly threatened by climate change, pollution, overfishing, and unsustainable resource extraction. To address these challenges, the concept of the Blue Economy has emerged as a holistic framework for promoting economic growth while preserving the health of marine ecosystems. Within this paradigm, renewable energy and desalination technologies hold particular promise for meeting societal needs—such as clean water and reliable power—without further degrading fragile marine environments.

Harnessing renewable energy sources (e.g., solar, wind, wave, and tidal) to power desalination systems is one clear example of how innovative solutions can alleviate water scarcity in coastal regions and islands while minimizing carbon emissions. Moreover, as these technologies advance, new applications are being explored for sustainable fisheries and aquaculture, eco-friendly maritime transport, and coastal resilience.

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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