



Geomechanics, Georesources and Their Role to Combat the Climate Emergency

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Message from the Guest Editors

Climate change is no longer a theory; it is the greatest challenge faced by humanity, and essentially threatens its very own existence. Advances in geomechanics play a pivotal role in combatting the impending climate emergency in both climate change mitigation and adaptation strategies. The increased demand for renewable and sustainable energy recovery and storage systems has stressed the wider geo-resources industry, which is contributing to over 10% of the global greenhouse gas emissions. Therefore, substantial transformation is required in the geo-energy and geo-resource sectors in order to realize the 2050 net-zero emissions target.

The scope of this Special Issue focuses on reducing carbon emissions related to the prevailing energy/resource harvesting technologies and geomechanics for climate change adaptation. This Issue welcomes papers on both of these fronts related to topics including, but not limited to, carbon capture and sequestration in geological formations, deep earth energy storage, geothermal energy extraction, in situ mineral recovery, and resilient infrastructure geomechanics design for climate adaptation.





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