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Extended Abstracts

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topic: 4

Mineral and thermal water

4.1

Geothermal resources

title: Geothermal potentialities of Morocco

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Morocco counts more than 10 hot aquifers and 50 thermal springs whose emergence temperature varies between 30 and 54°C. Therefore these important hot springs and reservoirs revealed by hydrogeologic and oil wells place the country as promising target in geothermal energy and thermal waters.

Geodynamic studies linked the zones showing geothermal gradient and heat flow exceeding 50° C/Km and 100 mW/m^2 respectively, to Neogene–Quaternary volcanic and neotectonic activities. However these thermal phenomena are still not developed and their exploitation limited to drinkable water distribution or to balneotherapy "ancient Hamam".

The Moroccan subsoil has potentialities in geothermal energy still unexploited. The most promising zones are North-Eastern Morocco and the sedimentary basins of the Sahara. Many warm water reservoirs place Morocco as country where average to high geothermal enthalpy could be used in several specific applications, but geothermics is still not enough developed and the interest to this energy source was up to now negligible in comparison to other renewable sources.



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