Application of Solar Nano Photocatalysis in Treatment of Seawater

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Abstract— Experimental investigations were carried out in a batch reactor system for the treatment of pollutants in seawater by solar nano photo catalysis. The degradation of pollutants was evaluated in terms of percentage decrease in Total Organic Carbon (TOC), Chemical Oxygen Demand (COD), Total Dissolved Solids (TDS) and pH.
Nano titanium dioxide (TiO2) particles were used as photo catalyst with and without the presence of poly amide (PA), to study the effect of degradation of pollutants present in the seawater.

Keywords— Desalination, Photocatalysis, Solar Energy, Sea water, Sultanate of Oman Introduction