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Effect of Quality Parameters of Krishna River Water, Krishna District, Andhra Pradesh, India, on Corrosion Behaviour of Some Commercially Important Metals

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ABSTRACT

Various water quality parameters of Krishna river water in Andhra Pradesh, India, were determined by using different analytical methods and the results were correlated to evaluate the corrosion rates of commercially important metals like carbon steel, copper and aluminium in the river water samples. The study was performed for the river water collected at seven different sites along the river. The analyzed parameters are chlorides, dissolved oxygen, conductivity, pH, total dissolved solids, total suspended solids, alkalinity and hardness. The trends of these physical and chemical parameters are analyzed. An attempt is made to evaluate corrosion rates of the metals, determined by gravimetric measurements, in terms of variations in the physical and chemical parameters.

Keywords: Corrosion rate, Gravimetric studies, Water quality parameters, Krishna River and Commercially important metals

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