Photochemical activity of seawater contaminated with red soil in the northern part of Okinawa

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Abstract

Hydroxyl radical (. OH) as a most reactive oxidant, posses an oxidizing power to control the lifetime of many synthetic and natural organic compounds in natural waters. Northern part of Okinawa Main Island is experiencing high soil erosion rate, particularly by acidic reddish soil that contains about 3.3- 5.3% of Fe. Past work has shown that low pH and high iron concentration favour OH formation in aquatic systems (Faust and Hoigné, 1990).