

Sedimentology of the Redang Island coral reefs environment

ABSTRACT

A study on the sedimentology of the Redang Island coral reefs environment was conducted. Sediments were collected on board UNIPERT AMA VII during the pre and post monsoon seasons. Twenty and seven sediments samples were collected using a Smith McIntyre grab on board UNI PERT AMA VII and put in labelled plastic bags then brought back to the laboratory for analysis. The sediments were analyzed for their sedimentological characteristics (mean size, skewness, standard deviation and kurtosis) using dry sieving method. Results showed that the highest mean size value of the sediments during the pre and post monsoons seasons are 2.14 ϕ and 2.37 ϕ , respectively and the lowest are -0.40 ϕ and -0.10 ϕ , respectively. Based on the results, sediments can be classified as medium sand (34%), poorly sorted (67%), strongly negative skewed (36%) and extremely leptokurtic (56%) during the pre monsoon season, while during the post monsoon season sediments can be classified as medium sand (38%), poorly sorted (73%), strongly negative skewed (41%) and very leptokurtic (62%). Results revealed that the sediments in the whole study area are relatively coarse. No relationship was observed between mean size and other sedimentological characteristics ($R^2=0.05$ pre-monsoon, $R^2=0.0017$ post monsoon) with seasons

Keyword: Sedimentology; Coral reefs; Geochemistry; Mineralogy