

Textural Study and Characteristics of the Late Proterozoic Siliciclastic Sequence of Kurnool Group, Palnad Basin, Andhra Pradesh, South India.

HARISH, V. Department of Studies in Geology, Manasagangotri, University of Mysore, Mysore

The Kurnool Group of rocks are exposed in two basins, one in Kurnool basin and the other in Palnad basin. The lithostratigraphic sequence of the study area consists of Banaganapalle Quartzite, Narji Limestone, Auk Shale, Paniam Quartzite, Koilkuntla Limestone and Nandyal Shale. The Banaganapalle and Paniam Quartzite are the two siliciclastic sequences of the Kurnool Group. The textural study of the sediments revealed medium to fine grained, very well sorted to well sorted, strongly fine skewed to symmetrical and platykurtic to leptokurtic in nature. All the three populations are present and saltation dominate over the suspension and traction. The environmental interpretations based on various bivariate and multivariate plots of the size parameters indicate deposition in a beach to shallow marine environment.

The primary sedimentary structures like ripple marks, cross bedding and dessiccation cracks indicate the deposition in shallow water, where subaerial conditions prevailed.

The above studies also revealed the Kurnool sediments had their source from the Archaeans and lower Cuddapah Formations from west and south west part of the basin.