High Impact Palynological Studies in Hydrocarbon Exploration in Indian Petroliferous Basins – A Summary

Mehrotra, Naresh C., Birbal Sahni Institute of Palaeobotany, Lucknow, India

The present paper is an updated summary of palynological information which became available in the last few years by Mehrotra and his associates in the effective application of this science in commercially producing basins of India. In Cambay Basin five dinoflagellate biohorizons have been identified within Ypresian with a maximum resolution of 5.8 Ma. In Mumbai Offshore Basin twenty dinoflagellate biohorizons have been distinguished between Ypresian to Miocene with a maximum resolution of 1 Ma. In Cauvery Basin dinoflagellates have been used in dating Cretaceous to Early Eocene sediments. In Krishna-Godavari Basin seventy nine dinoflagellate biohorizons have been identified with a fine time slicing from 0.5 to 1 Ma in Middle Triassic to Holocene sediments. In Assam Arakan seven biohorizons within Thanetian top to Priabanian have been distinguished based on dinocysts; A maximum resolution of 3.3 Ma has been achieved. The data has been presented through 6 palynostratigraphic figures.

Range Tables 1-14 present a summarized account of stratigraphic ranges of stratigraphically most significant angiosperm pollen and dinoflagellate cysts in the above petroliferous basins. The data presented in this paper is expected to be of use to Indian biostratigraphers particularly those attached with the Industry for generating high impact palynological information in hydrocarbon exploration business.