CHEMICAL COMPOSITION OF SAPROPELS

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SAPROPELS have been defined as black muds, often more than 1 cm thick, being part of a sequence of pelagic sediments and containing more than 2% of organic carbon (Kidd et al., 1978). Several sapropel layers have been deposited from 20 to 300 cms below the floor of the Mediterranean, the youngest being little more than 5000 years old. The organic material does not dissolve in either acqueous or organic solvents

Pyrolysis-Gas chromatography/Mass spectrometry of young sapropels generates alkanes / alkenes, alkyl benzenes, alkyl naphthalenes and a few phenols.

^{13}C nmr spectrometry complements this by indicating the aromaticity of the solids to be about 0.2 and suggesting that, despite their apparent immaturity, the sapropels have a similar organic chemical structure to Class 1 kerogen oil shales. Fluorescence petrography classifies these sapropels as impure algirites.

Comparison of sapropelic material from the Aegean, Marmara and Black Seas indicates small changes in their chemical composition. There is a need to determine the composition of a sequence of sapropels from several locations below the Mediterranean.

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