

Mineralogy and Geochemistry of in situ Araucarioxylon Wood Fossil from Mengkarang Formation Jambi Indonesia

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In this work we study microanalysis *in situ* araucarioxylon wood fossil from Mengkarang Formation as the position "Jambi Flora" of Bangko, Jambi Indonesia, from the Early Permain Period via silicification process. The samples of material consisted in three part a tree trunk 2.4 m high (a), rood base 2.4 m from root base (b) and lateral support root on either side (c) were characterized by infra red spectroscopies for determining lignin and selulose, X-ray diffraction and scanning electron microscopy (SEM) of mineralogical and geochemical microanalysis. The mineralogical investigations show quartz α (SiO_2) the major mineral and minor accessories trace elements. SEM + EDS analysis show that the most of the diaspores are crystalline with a small particle size and mainly coexists with ferrohhydrate. The IR has been used to demonstrate the behavior of water species present in SiO_2 , functional group of selulose, hemisolulose and lignin in wood fossil of araucarioxylon

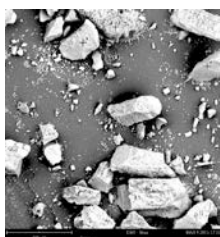
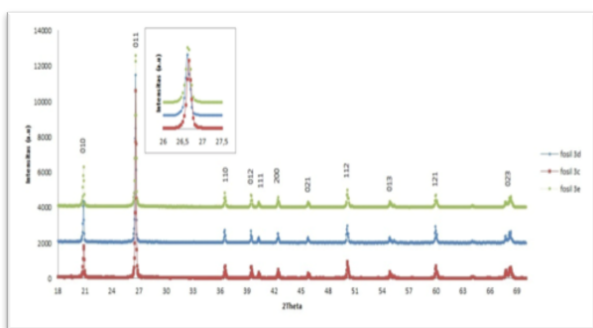


Figure (a). SEM Spectra (b) X-ray diffraction of in situ araucarioxylon wood fossil



During silicification process there is no spot indicating bacteria presence on wood fossil and elemental analysis performed by EDS presented in plats/spot, revealed that the majority of crystals was consisted of Oxygen (62.3%), Silica (27.3%), Carbon (7.8%) and Nitrogen (2.6%) and trace of Molidinum (Mo), Sb, Sm, Ce and Radon (Ra).