

Amber is an amorphous organic material, a fossil plant resin, mostly produced by Mesozoic and Cenozoic wetland trees. It was often used in jewelry in the past. However, together with the development of paleobiology it has begun to be used as an object of scientific studies, due to its unique abilities to conserve various inclusions in their three-dimensional matter and unusual preservation of their structures. These facts show its important role in the reconstruction of past ecosystems and organism interactions. Various groups of insects and chelicerates groups are typical inclusions that can be found in fossil resins. But the spectrum of these fossil organisms is much wider – from unicellular to vertebrates. For meaningful research of fossil material, precise analytic observations methods are necessary. Their development made a huge progress in last few years. This thesis summarizes the overview of some of these methods and also of inclusions described in several past years from various amber deposits (review of major deposits is included).