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## **ABSTRACT BOOK**

Editors

**Jacek Szwedo, Chenyang Cai and Qiang Xuan**



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## Editors

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NOTE: the abstracts are listed alphabetically based on the family name of the first author of each abstract.

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## Lublin area amber and question of other Eocene fossil resins

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Baltic amber (succinite) found on the Baltic coast is famous and exploited for thousands of years, but discussions on its age and origin are still vivid. In the Eocene, in the area of today's Central Europe there was a shallow and warm epicontinental sea. Its coasts were covered with lush forests producing large amounts of resin, which was then carried to the coastal area by river networks and surface runoff. The resins, as a result of bio- and geochemical processes occurring in seawater, underwent diagenesis, were transformed into amber, and were deposited together with fine-grained clastic sediments. These primary deposits were later redeposited, mostly in the Pleistocene and Holocene. The other succinite-bearing deposits (e.g., in Ukraine Rivne area and Germany Bitterfeld area and Lusatia), had been formed similarly and also reworked to various extents. Resins of succinite type are to be found in much wider areas in Europe (e.g., western coast of Denmark, coast of England), including findings in Spitsbergen and Canadian Arctic. As in the north, on the southern side of sea, to which the Lublin deposits are related, the resins were transformed into amber, transported by currents along the shores and deposited together with fine-grained clastic sediments: sands, silts and glauconite-quartz clays. Amber deposition was associated with periodic slowing of marine regression. The lithofacies analyses show that amber occurs in low-energy regressive phases, mainly among silts and fine-grained sands. As a result of an increase in environmental energy during a subsequent short-lived ingressive episode, interrupting the regressive trend, amber was often washed out of previously deposited accumulations and once again deposited in younger sediments. However, these deposits are primary ones, with amber first accumulated massively in fine clastic, clayey sediments. The modern spreading of amber is therefore usually associated with repeated erosion of amber-bearing sediments and redeposition of amber. Succinite of Lublin area contains inclusions, only a small fraction is elaborated more thoroughly. Some unique forms, not reported from other succinite deposits were found, e.g., representative of the damsel bugs Nabidae, representing a new subfamily, a new genus and species of bees, several new species of various flies and beetles. It is too early to draw any conclusions, but the identified inclusions only partially represent the same groups and taxa as those identified in amber from Ukraine and Gulf of Gdańsk. Succinite deposits from Lublin area are crucial for understanding the Eocene amber deposition.