

**<sup>14</sup>C ACTIVITY IN DIFFERENT SECTIONS AND CHEMICAL FRACTIONS OF OAK TREE RINGS, AD 1938–1981**

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The <sup>14</sup>C activity in tree rings from an oak growing in the suburbs of Uppsala, Sweden, has been studied for the period, AD 1938–1981. The results are compared with the atmospheric carbon dioxide records from Abisko, northern Sweden, where local or regional contamination from fossil-fuel combustion can be neglected. We have studied the influence from different chemical pretreatment procedures in use. HCl-NaOH-HCl treatment is compared with cellulose extraction. We have also analyzed the extract. Each ring has been split into two samples corresponding to early (spring) and late wood. A more refined partitioning has been applied to the years 1963 and 1964. The <sup>14</sup>C measurements were made at the Uppsala AMS facility whereas δ<sup>13</sup>C was determined with a conventional mass spectrometer. A cellulose yield of ca 25% and 35% was obtained for the early and late wood, respectively. We observed a delay in the <sup>14</sup>C activity response in the tree rings compared with the activity in the atmosphere.

**RADIOCARBON GEOCHRONOLOGY OF THE LARSEN COVE, MARAMBIO ISLAND (SEYMOUR ISLAND), EAST OF THE ANTARCTIC PENINSULA**

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On the northern coast of the Larsen Cove, Marambio Island (Seymour Island), periglacial landforms, such as frost domes, ice wedges, ice-wedge casts, gelifluction terraces and lobes have developed, along with raised beach topography at several levels along the coast. In order to estimate formative ages of frost domes and lower raised beaches, five algae samples were collected from the coastal sediments and radiocarbon dated. The results revealed that the frost domes were formed about 2200 BP, whereas the lower marine terrace was formed about 3100 BP. The figure of reservoir correction for the surveyed area was about 1000 years.

**RADIOCARBON DATING OF OYLUM HÜYÜK, TURKEY**

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Radiocarbon dates were determined from charcoal and bones from an excavation at Oylum Hüyük, Turkey just north of Aleppo, Syria. This site is a large tell located strategically on trade routes