

This Bachelor Thesis is divided into three main parts. The first part has a character of a research and describes the presence of lead in coal, in deposits of ore, in peat bogs, or in lake and flood sediments. The second part briefly describes the analytic methods used to determine lead in natural material. The third - practical part is focused on measurement of samples taken from the sokolov brown coal basin. It describes the laboratory method of the preparation of the samples for the analysis of contents and isotope composition of lead using ICP - QMS.