

In this diploma thesis there was studied a composition of a solid fraction of the atmospheric aerosol of the daily measurements from Pilsen by X-ray powder diffraction by the method of the parallel beam. The phase analysis was accomplished by comparing of the diffraction dates with a database of compounds usually occurring in the solid fraction of the atmospheric aerosol in this area. This database was created from works published earlier. In these samples there were also identified asbestos fibers of actinolite by the scanning electron microscope with EDS module. In this thesis there was also described a transport of several anthropogenic compounds of the atmospheric aerosol in dependence on a meteorological situation.