

Because Cs-137 and Cs-134 were the most abundant constituents in the Chernobyl fallout, the main emphasis in the monitoring has focused on these nuclides. In addition, the amounts of Ru-103, Ru-106, Ag-110, and Sb-125 clearly increased in Baltic Sea sediments as a consequence of the Chernobyl accident. The occurrence of these nuclides followed the distribution pattern of the caesium isotopes rather well, generally being most abundant in 1987; but due to their relatively short half-lives, they already started to decrease by 1988/1989.

Observations of Co-60 (half-life 5.3 years) in sediments also increased in various sub-regions of the Baltic Sea in the late 1980s.

The studies have focused on the occurrence and behaviour in the sediments of the fallout nuclides originating from the above-mentioned events. In this sense, the sedimentation processes and sedimentation rates of the radionuclides, as well as the accumulation of the fallout nuclides into sediments, have been monitored.

Figure 1.
Terrestrial deposition
of Cs-137 in the Baltic
Sea drainage area
(kBq m⁻²); compiled
by STUK.

