

PROMISING OPTICAL METHODS
FOR DETERMINING THE CONTENT OF HEAVY
METALS IN SOILS AND SURFACE WATERS

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S u m m a r y

Theoretical and hardware implementations of ion-photon spectroscopy and Doppler tomography methods to analyze the environment components with respect to the content of heavy metals (Cd, Cu, Pb, Zn) are presented. The basic quantitative characteristics determined for the methods testify to their high sensitivity to the heavy metal concentration. The method of Doppler tomography with laser excitation adapted to the problems of environmental monitoring enables the standard-free element analysis of impurities to be performed.