

Joint seminar of the NPI of the CAS

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RNDr. Jan Borovička, Ph.D., DNIM NPI: *From neutrons to arsenic and new mushroom species*

Abstract:

Since 1970s, many studies have investigated toxic trace elements in wild-growing edible mushrooms. However, when compared to mercury or cadmium, arsenic has been somewhat neglected in these studies. Neutron activation is a suitable analytical method for the determination of arsenic in mushroom biomass. In the course of many years of research, we have discovered mushroom species hyperaccumulating arsenic at unpolluted forest sites. Mushroom picking in the wild is a popular hobby in Europe. May arsenic accumulated in mushrooms represent a health risk to mushroom consumers? And may arsenic mass fractions in fruit-bodies even indicate species diversity of fungi? And how can a mycologist work at the Nuclear Physics Institute? These are the questions we seek to answer.