

During the days of 26–28 September an international conference under the title: “Bioaccumulation of Radionuclides and Heavy Metals – as a Marker of Environmental Contamination” took place in Kazimierz Dolny upon the Vistula river in Poland. A lot of foreign guests from: Spain, the Czech Republic, Slovakia, Bulgaria and Poland participated in this conference. During the three scientific sessions sixteen referates were given covering the following topics:

- Sources of environmental radionuclides and their bioaccumulation. A review;
- A simple and quick model to study uptake and transfer of radionuclides and heavy metals from mycelium to the fruitbody of saprophytic edible fungi;
- Contribution to improvement of extraction procedure choice for determination of bioavailable fraction of metals in soils;
- Platinum uptake by mustard and maize plants;
- Treatment of acid drainage in a uranium deposit by means of a natural wetland;
- Uptake and distribution of caesium and its influence on the physiological processes in croton plants (*Codiaeum variegatum*);
- The distribution of ^{137}Cs in maize (*Zea mays* L.) and two millet species (*Panicum miliaceum* L. and *Panicum maximum* Jacq.) cultivated on the caesium-contaminated soil;
- ^{137}Cs content in mushrooms from localities in eastern Slovakia;
- Plant uptake of radiocaesium from contaminated soil;
- The significance of reference materials and definitive methods for quality assurance in inorganic trace analysis and its relation to environmental pollution;

- The influence of potassium level on uptake and accumulation of cesium-137 in the four given species;
- Bioaccumulation of polonium (Po-210), uranium (U-234, U-238) and plutonium (Pu-238, Pu-239+240) radionuclides in marine and land organisms;
- Use of insects for biomonitoring of radioactive contamination;
- Analytical evaluation of the iron transfer from cigarette tobacco to human body;
- Bioaccumulation of radiolabelled juvenoids by soil microbial isolate *Candida* sp.;
- Application of probiotics in the xenobiotic detoxification therapy.

The sessions were headed by Professors: J. L. Manjón, J. Augustin, R. Tykva, R. Dybczyński, B. Skwarzec, J. W. Mietelski. The poster session of young scientists also took place. The following posters were presented:

- Analytical evaluation of the iron transfer from cigarette tobacco to human body;
- Sorption of Cd^{2+} by natural and modified *Clinoptilolite*, mordenite and synthetic zeolon P4A as a tool for minimizing of cadmium – biosorption processes;
- The role of transpiration in accumulation and translocation of ^{85}Sr and ^{137}Cs by plant excised shoots;
- Bioaccumulation of radiolabelled juvenoids by soil microbial isolate *Candida* sp.;
- The evaluation of radionuclides ^{137}Cs and ^{40}K dislocation in soil and plant samples from Sucha Woda Valley in Tatra Mt. (Part I);
- The evaluation of Pb, Zn and Cd distribution in soil samples from Sucha Woda Valley in Tatra Mt. (Part II);



- Difference between radionuclides behavior in needles of Norway spruce (*Picea abies*) tree;
- Bioaccumulation of plutonium in fish from Gdańsk Bay;
- Potassium regulation and the role of vacuoles in cesium uptake by Yeast strains for possible application in probiotic therapy;
- Phytoextraction and bioaccumulation of ^{137}Cs ;
- The influence of potassium level in the medium (sludge sediment mixed with the sand) on the uptake and accumulation of cesium in sparagus beans, greenbean, lettuce and beetroot;
- Discrimination between ^{137}Cs and ^{40}K in the fruiting body of wild mushrooms;
- Potential applications of sewage sludges in soil reclamation and decontamination;
- Accumulation of dissolved form metals in sediments from the drinking water reservoir Dobczyce, measured by ICP-OES.

The participants of this conference appreciated the need of common meetings in the circle of physicists,

biologists and chemists for better understanding the problems of bioaccumulation of radionuclides and heavy metals. The participation of considerable number of young scientists is worth noticing and marks the beginning of international future fruitful cooperation and friendship.

The conference was organized by Cembra Center of Excellence established at the Faculty of Biology of Warsaw University and financed from the 5th Framework Programme of the European Union (www.cembra.pl). CEMERA project is coordinated by Prof. Aleksandra Skłodowska. The main objective of the project is to create the leader in Central Europe in the area of complex environmental protection closely tied to the quality of life of an individual. Our activities are based on interdisciplinary research groups composed of scientists from Poland, EU and NAS countries.

Dr. Grażyna Bystrzejewska-Piotrowska
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