Program	**Program NUCLEU PN 09 13 02 19**
Project title (ENG):	**Evaluation of metallic elements pollution of aquatic ecosystems and soils contaminated by mining activities**
Project title (RO):	**Evaluarea poluarii cu elemente metalice a ecosistemelor acvatice si a solurilor contaminate prin activitati miniere**
Duration	2014
Team Leader	Dr. chem. Scientific Researcher 3rd degree Lidia Kim
Summary (short description) ENG	The project concerns the evaluation of the metal pollution of aquatic ecosystems in an area polluted by mining activities. In the project were elaborated the study regarding sediments characterization, bio-accumulation indices of metals in sediment, mobility studies, transport phenomena of metal pollutants in the environment (plants) and evaluating surrounding areas of soil pollution in mining waste dumps. It also developed new analytical methods for determining metals Au, Ga, Ge, Te, W, metals commonly found in mine waters from mining areas. From the results, it is found that bioavailability index correlates very well with the values obtained in surface water. Also, the concentrations of heavy metals in analyzed soils correlate with the levels achieved in vegetation.
Summary (short description) RO	Proiectul se refera la evaluarea nivelului de poluare cu metale a ecosistemelor acvatice dintr-o zona poluata de activitati miniere. In cadrul proiectului au fost elaborate studii privind caracterizarea sedimentelor, indici de bio-acumulare a metalelor in sedimente, studii de mobilitate, fenomene de transport a poluantilor metalici in mediu (plante) si evaluarea poluarii solului din zone limitrofe haldelor de depozitare deseuri miniere. De asemenea au fost dezvoltate noi metode analitice pentru determinarea metalelor Au, Ga, Ge, Te, W, metale frecvent intalnite in apele de mina din zone miniere. Din rezultatele obtinute, se constata ca indicele de biodisponibilitate se coreleaza foarte bine cu valorile obtinute in apa de suprafata. De asemenea, concentratiile metalelor grele obtinute in solurile analizate se coreleaza cu concentratiile obtinute in vegetatie.
Dissemination of results	
PhD Thesis – Title RO, ENG	*Identificarea unor caracteristici ale solurilor, vegetației și apelor prin metode fizico-chimice și electrochimice convenționale și neconvenționale*- **Drd. Cristina Dinu** Identification of soil, vegetation and water characteristics by conventional and unconventional physical-chemical and electrochemical methodsspectrometric and electrochemical methods
Full-paper ISI	Kim, L., Vasile, G. G., Stanescu B., Dinu, C., Ene, C., *Distribution of Trace Metals in Surface Water and Streambed Sediments in the Vicinity of an Abandoned Gold Mine from Hunedoara County*, Romania Revista de Chimie (Bucharest), **2016**, Vol. 67 (8), 1441-1446, ISSN: 0034-7752.
	Dinu,C., Ungureanu, E.M. , Vasile, G.G., Kim, L, Ionescu,I., Ene,C., Simion, M., *Soil and vegetation pollution from an abandoned mining area situated in Hunedoara County*, Romania, Revista de Chimie (Bucharest), **2018**, Vol. 69 (1), 14-20, ISSN: 0034-7752.
	Cristina Dinu, Eleonora-Mihaela Ungureanu, Gabriela-Geanina Vasile, Lidia Kim, Luoana Florentina Pascu, Marius Simion, *Evaluation of the bioavailability and pollution indexes of some toxic metals in*

	polluted soils from an abandoned mining area, Revista de Chimie (Bucharest), **2018**, Vol. 69 (11), in press, ISSN: 0034-7752.