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Organization	Institute of Microbiology and Biotechnology, Chisinau, Republic of Moldova
Patent / patent application title	**THE BIODEGRADATION OF PLASTICS IN PLASTICS IN THE PRESENCE OF PHYTOREMEDIATING MICROBIOL DEGRADANTS**
Authors	COSCODAN MIHAIL
Patent / patent application N°	**Project research 20.80009.7007.03**
Description	Una din problemele actuale principale ale institutului de cercetare este de a studia în condiții de laborator microorganismele fitostimulatoare ce pot folosi politilena, ca sursa de carbon și/sau energie. La rândul lor aceste microorganisme pot fi izolate, studiate si utilizate ca agenți de biodegradare a deseurilor de plastic nereciclabil. Printre agentii microbieni proeminenți utilizați pentru biodegradare, apartinind urmatoarelor specii Pseudomonas, Bacillus, Streptomices, Arthrobacter, Rhizobium, Micrococcus , Rhodococcus si Flavobacterium. Noutatea consta in elaborarea unui procedeu biotehnologic pentru reducerea riscului de poluare a mediului cu plastic, bazat pe utilizarea microorganismelor fitoremediatoare pentru biodegradarea plasticului nereciclabil. One of the main current problems of the research institute is to study in laboratory conditions the phytostimulating microorganisms that can use polyethylene as a source of carbon and/ or energy. In turn, these microorganisms can be isolated, studied and used as biodegradation agents for non-recyclable plastic waste. Among the prominent microbial agents used for biodegradation, belonging to the following species Pseudomonas, Bacillus, Streptomices, Arthrobacter, Rhizobium, Micrococcus, Rhodococcus and Flavobacterium. The novelty consists in the elaboration of a biotechnological process for reducing the risk of environmental pollution with plastic, based on the use of phytoremediation microorganisms for the biodegradation of non-recyclable plastic.
Domain	Environment-ecology, Biology