

THE NATIONAL CENTRE FOR PROJECTS MANAGEMENT

PROGRAMME 4 - PARTNERSHIPS IN PRIORITY AREAS

PROJECT PNII 82102/2008

ACRONYM: BLUEBOXSENS

DURATION: 2008 - 2011

TITLE

**DEVELOPMENT AND CHARACTERIZATION OF NEW MOLECULAR SENSORS
BASED ON CYCLOPHANE CYCLOBIS(PARAQUAT-*p*-PHENYLENE) DERIVATIVES
USED FOR DETECTION AND IDENTIFICATION OF CRISIS-GENERATING LOCAL
FACTORS (PRIORITY SUBSTANCES AND PRIORITY HAZARDOUS
SUBSTANCES)**

PARTENERS

- CO** UNIVERSITY OF BUCHAREST
- P1** NATIONAL INSTITUTE OF RESEARCH AND DEVELOPMENT FOR BIOLOGICAL SCIENCES
- P2** NATIONAL INSTITUTE OF RESEARCH AND DEVELOPMENT FOR BIOLOGY AND ANIMAL NUTRITION – BALOTEȘTI
- P3** INSTITUTE OF SPEOLOGY *EMIL RACOVITĂ*

The research described in this grant is focused on new organic molecules containing two structural patterns: cyclophane derivatives and cyclodextrines. Such organic compounds could be used for the capture and simultaneous determination of ionic species in solution by means of cyclophane and toxic organic compounds by means of cyclodextrines. The ionic species involved in these studies are inorganic anions, while the organic ones belonging to polynuclear aromatic hydrocarbons and phenol (aminophenols and alkylphenols). At present, cyclodextrines are the organic compounds that are most involved in putting analytical chemistry into practice and in controlling the quality of living environment because of their high capacity to form inclusion compounds with many chemical species.