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National Institute for Research and Development in Environmental Protection - INCDPM

RO.239.

Title	**ESTABLISH A NATIONAL SYSTEM, COLLECTION POINTS AND DIGITAL INFRASTRUCTURE FOR MONITORING COVID 19 AND ITS VARIANTS IN WASTEWATER**
Authors	DEÁK György, MATEI Monica, BOBOC Mădalina, HOLBAN Elena; PRANGATE Raluca; ROMAN Diana
Institution	**National Institute for Research and Development in Environmental Protection**
	-
Description	This project will lay the foundations for a national wastewater monitoring system aimed at collecting data on SARS-CoV-2 and its variants, taking into account an appropriate methodology for the determination of SARS-CoV-2 and its variants in wastewater. It will be developed and harmonised with those developed at EU level.

RO.240.

Title	**DALIA Danube Region Water Lighthouse Action**
Authors	TUDOR Georgeta; DEÁK György; MATEI Monica; BOBOC Mădălina; HOLBAN Elena; RAISCHI Marius; BURLACU Laurențiu
Institution	**National Institute for Research and Development in Environmental Protection – INCDPM Bucharest**
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Description	Among other R&I Missions, the EU has designated the 'Restore our Ocean, seas and waters by 2030' Mission in order to provide a systemic approach for the restoration, protection and preservation of our ocean, seas, and freshwaters. DALIA project is implemented by a consortium of 22 expert organizations (universities, authorities, SMEs, NGOs) from 8 different Danube EU and Associated countries. DALIA innovation actions are supported by the 9 Demonstration Pilot Sites (DPS) in the 6 countries in the Danube River basin area. INCDPM is in charge of DPS 6 dedicated to sturgeon migration by-pass Iron Gates I and II and the proposed activities will provide a technical & scientific solution in order to ensure the connectivity of the

migration routes for the ultrasonic tagged sturgeon specimens to by-pass the two Hydropower Stations. The implementing methodology involves four main stages: measurement campaigns in order to determine the exact location for the INCDPM patented monitoring stations (DKMR-01T and DKTB); commissioning ultrasonic tagged sturgeon specimens detection gates (two located downstream the Iron Gates I and II and one downstream Bazias and more in the Serbia and Hungary Danube sectors); developing the best strategy to assist ultrasonic tagged sturgeon specimens to pass upstream and adopting the use of special solutions adapted for each hydropower station; continuous mobile monitoring using boat-mounted VR-100 reception stations for then tagged specimens and recording their behaviour and movements until Baziaș and further upstream for 700 fluvial km until Danube km 1780.

RO.241.

Title

DEVICE FOR DIRECT DETERMINATION OF GAS FLUXES (especially those with greenhouse effect) IN SUBMERGED CHAMBER DRIED FROM THE SUBSTRATE OF AQUATIC ECOSYSTEMS (mud, sludge, sediments, etc.)

Authors

LASLO Lucian, ENACHE Natalia, DEÁK György, MATEI Monica, BOBOC Madalina

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Patent application No. A/00182 /2023

Description

The invention refers to a submerged device for determining gas fluxes from the aquatic substrate of ecosystems and atmosphere, named **DKLN-aQuA** type, which works based on the closed chamber method. The direct determination device has a circuit with a water discharge filter inside the closed chamber, connected to a pump whose vacuum acts a reverse valve that ensures the sealing of the air entering the chamber and thus forms a closed circuit with the connected reading system consisting of the analyzer and the computer. The device also offers the possibility of connecting to an Injection Kit, which is a static method that allows samples to be taken and the concentrations of cumulative gases in a predetermined time interval to be measured in the laboratory.