

# THE INFLUENCE OF THE ATMOSPHERIC PRECIPITATION ON THE GASEOUS CAVITATION IN THE BOTTOM SEDIMENT OF THE OPEN BASIN.

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*At the article is executed mathematical description of the processes mass transfer of water, the water solution and the carbon dioxide (CO<sub>2</sub>) into geological structures under the bottom of the lake (of the open basin) and the influences of the atmospheric precipitation on these process.*

*Mathematical description is intended for the numerical simulation of the process of the infiltration (leakages) the magmatic carbon dioxide (CO<sub>2</sub>) from the deep geological structures in the lake Nyos and Monoun.*

*The Numerical simulation is capable to eliminate of the uncertainty in the determination of the mechanism, that caused the disastrous outbursts of the gas from lake Nyos and Monoun, and is capable to estimate insofar recipe degassing of water the lake (that is underway at present) is effective to prevent from the the catastrophes, which similar to catastrophe 1984 and 1986.*

*The purpose is achieved by the procedure of the transition from microparameters of the component sediment to the macroparameters. As a result was received the system of the continual equations, which describing of the gaseous „cavitation in the sediment" and the influence the atmospheric precipitation upon the “cavitation in the sediment”.*

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