STUDY OF STABLE NITROGEN FORMS IN NATURAL SURFACE WATERS IN THE PRESENCE OF MINERAL SUBSTRATES

Petru Spataru[a]*, Igor Povar[a], Elena Mosanu[b], Ana Trancalan[a]

[a]*Institute of Chemistry of Academy of Sciences of Moldova, 3, Academiei str., Chisinau MD-2028, Republic of Moldova*
[b]*Institute of Ecology and Geography of Academy of Sciences of Moldova, 1, Academiei str., Chisinau MD-2028, Republic of Moldova*
[*]*e-mail: spatarupetru@yahoo.com*

Abstract. The influence of substrates on the oxidation of reduced toxic forms of nitrogen in river water was investigated by laboratory modelling. Granite and expended clay accelerate the oxidation of ammonium and nitrite ions from 2 to 4 times. The presence of calcium carbonate in water hinders the oxidation of nitrogen in the polluted water.

Keywords: granite, expanded clay, calcium carbonate, ammonium, nitrite.

Received: May 2014/ Revised final: September 2015/ Accepted: November 2015