METHOD FOR NITRATE DETERMINATION IN WATER IN THE PRESENCE OF NITRITE

Maria Sandu^{a*}, Tudor Lupascu^b, Anatol Tarita^a, Tatiana Goreacioc^a, Sergiu Turcan^a, Elena Mosanu^a

^aInstitute of Ecology and Geography, A.S.M., 1, Academiei str., Chisinau MD-2028, Republic of Moldova ^bInstitute of Chemistry, A.S.M., 3, Academiei str., Chisinau MD-2028, Republic of Moldova ^e-mail: sandu_mr@yahoo.com; phone: (+373 22) 73 15 50; 72 17 74

Abstract. The study relates to determination of nitrate in presence of nitrite in water and can be used in the quality monitoring of natural water (surface and groundwater), drinking water, water from fish farms and public aquaria where autonomous filters is used. The nature and quantity of reagents used have insignificant impact on natural waters and sewages. According to the investigation, the method includes the removal of nitrite from the solution/water with sulfaminic acid, the nitrate ion reduction to nitrite using a reducing mixture that contains Na₂SO₄ and zinc dust in ratio of 100:5 and determining the nitrite with the Griess reagent.

Keywords: water, nitrate determination, nitrites, sulfaminic acid, Griess reagent, reducing mixture.