

DETERMINATION OF THE URANIUM WATER SOLUTION  
CONCENTRATION USING CELULOSE NITRATE DETECTORS

R. Benderač, R. Antanasijević, Ž. Todorović  
D. Miočinović  
Institute of Physics, 11001, Beograd, Yugoslavia

Detection characteristics for different kinds of cellulose nitrates in uranium salts solution, have been determined. Their detection efficiency has been investigated as a function of water treatment. It has been shown that the efficiency depends on physico-chemical characteristics of cellulose nitrates. The largest water influence has been obtained for cellulose nitrates with small content of nitrogen and small viscosity coefficient.

Registration efficiency has been also determined for  $\alpha$ - particles for different kinds of cellulose nitrates as a function of uranium salts concentration. These results have been compared with corresponding results obtained with commercial detectors (Kodak CA 80-15, LR-115).