

# NUCLEAR TECHNOLOGY & RADIATION PROTECTION

UDC 621.039+614.876:504.06  
YU ISSN 1451-3994

December 2002 1-2/2002 ❖ Vol. XVII

## Contents

### Editorial

*Rodoljub Simović*

TO OUR READERS AND AUTHORS . . . . . 2

### Papers

*Yuri A. Teterin, Mikhail V. Ryzhkov, Anton Yu. Teterin, Alexander D. Panov, Anton S. Nikitin,  
Kirill E. Ivanov, Igor O. Utkin*

THE NATURE OF CHEMICAL BOND IN TRIOXIDE  $\gamma$ - $UO_3$  . . . . . 3

*Saša Ćirković, Jasna Ristić-Djurović, Alexey S. Vorozhtsov, Serguei B. Vorozhtsov*

CALIBRATION OF THE SIMULATION MODEL OF THE VINCY CYCLOTRON MAGNET . . . . . 13

*Ljiljana Kostić*

REACTIVITY DETERMINATION IN ACCELERATOR DRIVEN REACTORS  
USING REACTOR NOISE ANALYSIS . . . . . 19

*Radovan D. Ilić, Darko Lalić, Srboljub J. Stanković*

SRNA - MONTE CARLO CODES FOR PROTON TRANSPORT SIMULATION  
IN COMBINED AND VOXELIZED GEOMETRIES . . . . . 27

*Velimir Stanić, Bojana Šećerov, Vladan Ljubenov*

A UNIFIED APPROACH TO DECONVOLUTION RADIATION SPECTRA  
MEASURED BY RADIOCHROMIC FILMS . . . . . 37

*Anis Bousbia-Salah, Francesco D'Auria*

ANALYSIS OF THE PEACH BOTTOM 2 BWR TURBINE TRIP EXPERIMENT  
BY RELAP5/3.2 CODE . . . . . 44

*Miodrag Mesarović*

CONTROVERSIAL REVERSAL OF NUCLEAR OPTION . . . . . 50

*Mahmoud M. Imam, Hassan Roushdy*

THERMAL NEUTRON FLUX DISTRIBUTION IN ET-RR-2 REACTOR THERMAL COLUMN . . . . . 64

*Gerold G. Simon, Marina Šokčić-Kostić*

FAMOS III, BURN-UP MEASUREMENT SYSTEM SUITABLE FOR LA HAGUE ACCEPTANCE  
CRITERIA CONTROL . . . . . 68

*Milan Pešić, Obrad Šotić, William H. Hopwood, Jr.*

TRANSPORT OF HIGH ENRICHED URANIUM FRESH FUEL FROM YUGOSLAVIA  
TO THE RUSSIAN FEDERATION . . . . . 71

### Reviews

XLVI ETRAN Conference - Activities of the Nuclear Engineering and Technology Commission . . . . . 77

VINČA Institute Workshop on the Basics of Decommissioning . . . . . 77

The 4<sup>th</sup> International Yugoslav Nuclear Society Conference . . . . . 79

The 5<sup>th</sup> International Conference of the Balkan Environmental Association on Transboundary Pollution . . . . . 81

Author Index . . . . . 82