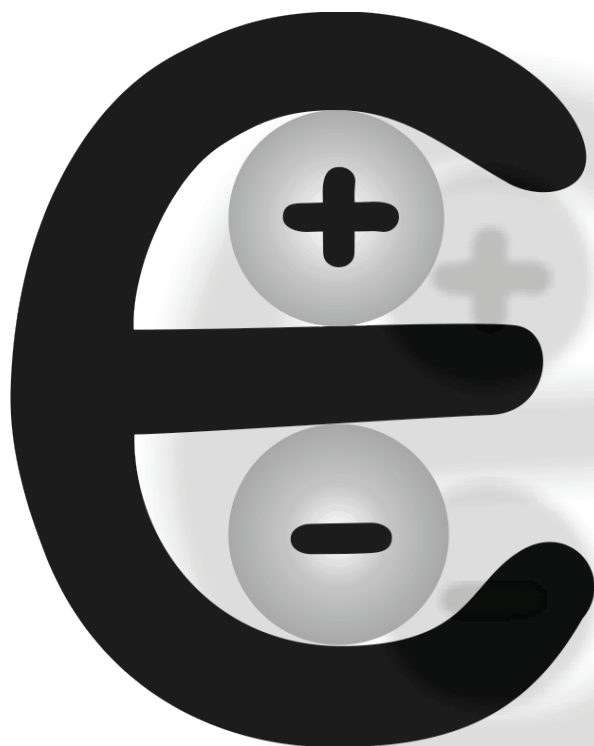




**Second Regional Symposium
on Electrochemistry
South-East Europe**

**Program &
Book of Abstracts**



Belgrade, Serbia, June 6-10, 2010.

CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

621.357/.359(048)
541.1(048)
620.193/.197(048)
66.087(048)
543.25(048)

REGIONAL Symposium on Electrochemistry South-East Europe (2 ; 2010 ; Beograd)
Program ; #& #Book of Abstracts / Second Regional Symposium on Electrochemistry
South-East Europe, RSE-SEE, Belgrade, Serbia, June 6-10, 2010. ; [editors Branislav
Nikolić, Vesna Mišković-Stanković, Aleksandar Dekanski]. - Belgrade : Serbian Chemical
Society, 2010 (Belgrade : #Faculty of Technology and Metallurgy, #Development and
Research Center of Graphic Engineering). - XXIII, 170 str. : ilustr. ; 24 cm

Tiraž 270. - Registar.

ISBN 978-86-7132-043-6

a) Електрохемијско инжењерство - Апстракти b) Галванотехника - Апстракти
c) Електрохемија - Апстракти d) Електрохемијске реакције - Апстракти e)
Антикорозиона заштита - Апстракти f) Аналитичка електрохемија – Апстракти

COBISS.SR-ID 175352076

*SECOND REGIONAL SYMPOSIUM ON ELECTROCHEMISTRY : : SOUTH-EAST EUROPE
BELGRADE, SERBIA, JUNE 6-10, 2010*

PROGRAM & BOOK OF ABSTRACTS

Published by

Serbian Chemical Society, Karnegijeva 4/III, PAK 135804, 11120 Belgrade, SERBIA
phone./fax: +381 11 3370 467; www.shd.org.rs, E-mail: Office@shd.org.rs

For Publisher

Ivanka POPOVIĆ, Prezident of the Society

Editors

Branislav NIKOLIĆ

Vesna MIŠKOVIĆ-STANKOVIĆ

Aleksandar DEKANSKI

Cover Design, Page Making and Computer Layout

Aleksandar DEKANSKI

Circulation:

270 Copy Printing

ISBN 978-86-7132-043-6

Printing:

Development and Research Center of Graphic Engineering,

Faculty of Technology and Metallurgy, Karnegijeva 4, PAK 135804, 11120 Belgrade, SERBIA

**The reduction of nitroaromatic compounds on the platinum electrode**

Vedrana Marinović, Sanja Marinović*, Mića Jovanović**, Jovan Jovanović**

*Institute of Technical Sciences of the Serbian Academy of Science and Arts,
Knez Mihajlova 35, 11000 Belgrade, Serbia*

**Institute of Chemistry, Metallurgy and Technology, Njegoševa 12,
11000 Belgrade, Serbia,*

***University of Belgrade, Faculty of Technology and Metallurgy, Karnegijeva 4,
11000 Belgrade, Serbia*

The reduction of 2,4,6-trinitrotoluene (TNT), as an example of nitroaromatic compounds with three nitro groups, was investigated by cyclic voltammetry on a platinum electrode in aqueous sodium chloride solutions with acetonitrile. The obtained cyclic voltammograms showed three well-pronounced reduction peaks in the potential range of -0.43 to -0.8 V (vs. Ag/AgCl reference electrode). The potentials of the peaks were dependant on the potential scan rate as well as on the TNT concentration, indicating the irreversibility of the reduction process. A calibration curve as a linear dependence of the first peak current on the TNT concentration was obtained in the range $4.4 - 638.4 \mu\text{M L}^{-1}$. The platinum electrode exhibited an electrochemically stable behavior for the TNT reduction process. Hence, a Pt electrode could be a suitable material for TNT sensing.