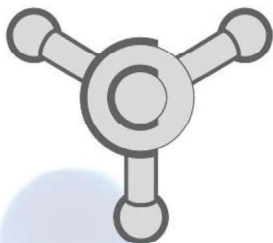


Serbian Young Chemists' Club



Serbian Chemical Society



Seventh Conference of the Young Chemists of Serbia

Book of Abstracts

Belgrade, 2nd November 2019



CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

54(048)(0.034.2)
577.1(048)(0.034.2)
60(048)(0.034.2)
66.017/.018(048)(0.034.2)

CONFERENCE of the Young Chemists of Serbia (7 ; 2019 ; Beograd)

Book of abstracts [Elektronski izvor] / Seventh Conference of the Young Chemists of Serbia, Belgrade, 2nd November 2019 ; [organized by] Serbian Chemical Society [and] Serbian Young Chemists Club ; [editors Tamara Todorović ... [et al.]]. - Belgrade : Serbian Chemical Society, 2019 (Belgrade : Development and Research Centre of Graphic Engineering Faculty of Technology and Metallurgy). - 1 elektronski optički disk (CD-ROM) ; 12 cm

Sistemski zahtevi: Nisu navedeni. - Nasl. sa naslovne strane dokumenta. - Tiraž 150. - Bibliografija uz većinu apstrakata. - Registar.

ISBN 978-86-7132-076-4

а) Хемија -- Апстракти б) Биохемија -- Апстракти в) Биотехнологија -- Апстракти
г) Наука о материјалима -- Апстракти

COBISS.SR-ID 280545292

7th CONFERENCE OF THE YOUNG CHEMISTS OF SERBIA
BELGRADE, 2nd November 2019
BOOK OF ABSTRACTS

Published and Organized by

Serbian Chemical Society and Serbian Young Chemists Club

Karnegijeva 4/III, 11000 Belgrade, Serbia

Tel./fax: +381 11 3370 467; www.shd.org.rs; office@shd.org.rs

Publisher

Vesna MIŠKOVIĆ-STANKOVIĆ, *president of Serbian Chemical Society*

Editors

Tamara TODOROVIĆ

Ljubodrag VUJISIĆ

Jelena RADIVOJEVIĆ

Vuk FILIPOVIĆ

Page Layout and Design

Vuk FILIPOVIĆ

Circulation

150 copies

ISBN 978-86-7132-076-4

Printing

Development and Research Centre of Graphic Engineering

Faculty of Technology and Metallurgy, Karnegijeva 4, Belgrade, Serbia

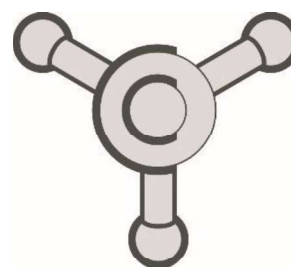
Year of Publication: 2019

SCIENTIFIC COMMITTEE

Dr Tamara TODORVIĆ

Dr Ljubodrag VUJISIĆ

Dr Jelena RADIVOJEVIĆ



ORGANIZING COMMITTEE

Dr Života SELAKOVIĆ

Vuk FILIPOVIĆ

Jelena LAZIĆ

Supported by



**Ministarstvo prosvete, nauke i tehnološkog
razvoja Republike Srbije**

*Ministry of Education, Science and Technological
Development of Republic of Serbia*



Evropska mreža mladih hemičara
The European Young Chemists' Network



Evonik Industries AG

Table of Contents

Plenary Lecture

Marijana Ponjavić

The poly(ϵ -caprolactone) chemistry role in creating new polymer biomaterials ____ 5

Invited Lectures

Života Selaković

Novel diazachrysenes and naphthyridines in the fight against Ebola _____ 6

Dušan Malenov

Stacking interactions of aromatic ligands in transition metal complexes _____ 7

Contributions

Biochemistry and biotechnology _____ 9

Food chemistry _____ 21

Chemistry of macromolecules and nanotechnology _____ 33

Educational chemistry _____ 41

Chemical analysis _____ 51

Chemical synthesis _____ 75

Industrial and applied chemistry _____ 99

Medicinal chemistry _____ 109

Materials science _____ 127

Theoretical chemistry _____ 149

Author Index _____ 161

CA PP 03

The effect of chlorine dioxide on organophosphorous pesticide degradation

Igor D. Kodranov¹, Marija V. Pergal², Dragana M. Kuč¹, Dragan D. Manojlović^{1,3}

¹ University of Belgrade, Faculty of Chemistry, Belgrade, Serbia,

² University of Belgrade, Institute for Chemistry, Technology and Metallurgy, Belgrade, Serbia

³ South Ural State University, Chelyabinsk, Russia

This study investigates degradation of organophosphorus pesticide, such as fenitrothion, with chlorine dioxide in deionized water and in real water system (water from River Sava). We investigated in detail the influence of various parameters such as concentration of chlorine dioxide, reaction time, pH and determined the optimal conditions for the pesticide degradation based on degradation efficiency monitored by HPLC-DAD. After 24 h of degradation at condition of pH 2.00 at light conditions, fenitrothion (20 mg/L) was degraded 82%. The percentage of pesticide degradation in water from River Sava was lower in relation to deionized water, but good value was obtained (degradation efficiency of 72% under the same conditions as in deionized water). GC/MS/MS (gas chromatograph with triple quadrupole mass detector) analysis identified three main degradation products and degradation mechanism was proposed.

Acknowledgments

This work was financially supported by the Ministry of Education, Science and Technological Development of the Republic of Serbia.