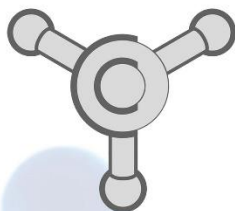


Serbian Young Chemists' Club



Serbian Chemical Society



Seventh Conference of the Young Chemists of Serbia

Book of Abstracts

Belgrade, 2nd November 2019



CIP - Каталогизacija u publikaciji
Narodna biblioteka Srbije, Beograd

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

a) 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

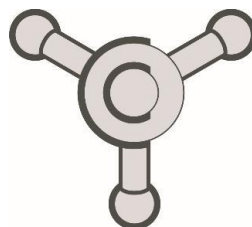
Year of Publication: 2019

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*



—European Young Chemists' Network—

Evropska mreža mladih hemičara

The European Young Chemists' Network



Evonik Industries AG

EC OP 03

Effectiveness of computer-based laboratory work

Lidija R. Ralević, Milica O. Maksimović, Biljana I. Tomašević
University of Belgrade – Faculty of Chemistry, Belgrade, Serbia

The development of Information and Communication Technologies (ICT) and their use in chemistry classes could improve the quality of the teaching and learning process. The incorporation of appropriate multimedia materials into teaching and their educative role have the potential to provide instructional improvement and new learning experience. [1] Computer animations and simulations have been used in a variety of teaching situations, to represent phenomena at the atomic and molecular level, as well as to simulate the laboratory procedures. [2]

This study investigated the effectiveness of using the Multimedia Educational Interactive System (MEDIS), applied in the laboratory class "The effect of temperature on the solubility of substances". Students' attitudes towards this type of learning were also examined.

This study involved 60 seventh grade students and results were statistically processed for 48 of them. These students attended the laboratory class, did two tests (pre-test and post-test) and completed the questionnaire.

Quantitative data were generated from the pre-test and post-test about the solubility concept and from the questionnaire. A paired sample t-test that was used showed that mean differences were not statistically significant, although the mean post-test achievement score ($M = 7.52$, $SD = 3.64$) was higher than the pre-test achievement score ($M = 6.96$, $SD = 3.12$). After analyzing the students' answers obtained by processing the data from the questionnaire, it was concluded that the students liked this way of studying and would like to use MEDIS or similar computer systems in chemistry laboratory classes in the future.

References

1. J. Watters, C. Diezmann, *Journal of Science Teacher Education*. **2007**, *18* (3) 349-375
2. S. Avramiotis, G. Tsaparlis, *Chemistry Education Research and Practice*. **2013**, *14* (3) 97-311.

Acknowledgments

This work was supported by the Ministry of Education, Science and Technological development of the Republic of Serbia (Project No. 179048).