



PHYSICAL CHEMISTRY 2022

16th International Conference
on Fundamental and Applied Aspects of
Physical Chemistry

Organized by
The Society of Physical Chemists of Serbia

BOOK OF ABSTRACTS



Online Event
September 26-30, 2022
Belgrade, Serbia

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Abbreviations

PL – Plenary Lecture
SL – Section Lecture
O – Oral Presentation
P – Poster Presentation

Topics

A – Education and History
B – Spectroscopy, Molecular Structure, Physical Chemistry of Plasma
C – Kinetics, Catalysis
D – Nonlinear Dynamics, Oscillatory Reactions, Chaos
E – Electrochemistry
F – Biophysical Chemistry, EPR investigations of Bio-systems
G – Organic Physical Chemistry
H – Material Science
I – Photochemistry, Radiation Chemistry, Photonics
J – Macromolecular Physical Chemistry
K – Environmental Protection, Forensic Sciences, Geophysical Chemistry,
Radiochemistry, Nuclear Chemistry
L – Phase Boundaries, Colloids, Liquid Crystals, Surface-Active Substances
M – Complex Compounds
N – Food Physical Chemistry
O – Pharmaceutical Physical Chemistry

E-06-P**THE EXAMINATION OF ZnMnO_4 IN AN AQUEOUS SOLUTION OF ZnCl_2 AND $\text{Mn}(\text{NO}_3)_2$** J. Senćanski¹, N. Nikolić², S. Blagojević¹ and I. Stojković Simatović³

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ABSTRACT

This work yields in the examination of potentially cathode material for aqueous Zn-ion batters. LiMn_2O_4 , which is used in commercial organic Li-ion batteries is replaced with ZnMn_2O_4 in this work. Due to the presence of Mn^{3+} ions, the dissolution of them occurs in electrolyte decomposing to Mn^{4+} and Mn^{2+} . To overcome this issue, 1 ml of 1M $\text{Mn}(\text{NO}_3)_2$ aqueous solution was added into 10 ml of aqueous solution of ZnCl_2 to achieve an equilibrium between Mn^{2+} ions in the material and ones in an electrolyte. The results obtained showed that a higher capacity was obtained when 1 ml of 1M $\text{Mn}(\text{NO}_3)_2$ was added into 10 ml of aqueous solution of ZnCl_2 .