



PHYSICAL CHEMISTRY 2022

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on Fundamental and Applied Aspects of
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BOOK OF ABSTRACTS



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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

D-06-P

**INDIGO CARMINE DETERMINING BY UV/VIS
SPECTROMETRIC AND THE KINETIC METHOD USING
BRIGGS-RAUSCHER OSCILLATOR: TWO METHODS
COMPARISON**

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ABSTRACT

Indigo carmine (InC) is broadly used blue dye in different industrial area. This work aims to obtain analytical curves for determination of InC in aqueous solutions. For such as purposes, two methods were used: UV/VIS spectrophotometry and the kinetic method based on Briggs-Rauscher (BR) oscillatory reaction, and compared in terms of methods sensitivity which expressed as limit of detection (LOD) and limit of quantification (LOQ). To the best of authors' knowledge, as candidate for proposed analytical method, the BR oscillatory reaction was applied for the first time to InC quantification. The results obtained show that kinetic method using BR oscillatory reaction has a quite lower LOD and LOQ making this method more acceptable to determine an unknown concentration of InC dissolved in water, compared to UV/Vis spectrophotometric method.