

METADATA

Title: Experimental Biochemistry

Other Titles: -

Language: Greek

Authors: Trapali, M., Lecturer, UNIWA, Karikas, G.A., Professor Emeritus, UNIWA, Karkalousos, P., Assistant Professor, UNIWA, Fountzoula, C., Assistant Professor,

UNIWA

ISBN: 978-618-5667-55-9

Subject: NATURAL SCIENCES AND AGRICULTURAL SCIENCES

Keywords: Biochemistry / Proteins / Lipids / Carbohydrates /

Buffer solution

Bibliographic Reference: Trapali, M., Karikas, G., Karkalousos, P., & Fountzoula, C. (2022). Experimental Biochemistry [Undergraduate textbook]. Kallipos, Open Academic Editions. http://dx.doi.org/10.57713/kallipos-97

Abstract

Theoretical and practical training in Biochemistry, which is considered a special infrastructure course and a prerequisite subject, constitutes one of the main pillars of understanding the activities and possibilities of modern Clinical Biochemistry. This is also the educational goal of the teaching and practice of fundamental biochemical techniques, which this laboratory course covers. Within these frameworks, the chapters that this experimental Biochemistry is going to present can be distinguished into five interrelated thematic sections: 1. Knowledge of general chemistry and biology (organology, solutions, pH, buffers).

Individual theoretical biochemical topics (safety rules, reliability of analytical methods). 2. The methods of classical analytical determinations for each category of compounds of biochemical and diagnostic interest (amino acids, peptides/proteins, enzymes, carbohydrates, lipids, DNA). 3. Computational exercises, exemplarily solved for practice. 4. Instrumental analysis Principles and methodologies (spectrophotometry, chromatography, electrophoresis). 5. A group of representative exercises for the practical training of the laboratory students will be renewed in connection with upgrading the laboratory equipment.









