

THE METHODIC ASPECT OF THE USING COMPUTER TECHNOLOGY ON TEACHING BIOORGANIC CHEMISTRY

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ABSTRACT

In this article it was discussed the electronic manual of the subject of bioorganic chemistry. In this manual it was indicated the life and works of famous scientist who working in the field of bioorganic chemistry, while the molecular models of carbon hydrates.

Keywords: Electronic manual, bioorganic chemistry, animation, famous scientists, models of organic molecules, interactivity.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

It was great true that if teacher has great ability, high degree sensibility her or his students will be high quality and great next generation. Especially the using information communication technology (ICT) on the field of chemistry brings us great advantages and opens effective study opportunities; in addition to this the information communication technology can increase intelligence of students on university or any study sections.

In our research work we have choose the aim of that develop competence and using interactive information technology for growth students intelligence degree on purposed and accuracy study. Supplementary purpose is that using information communication technology on biochemistry.

The electronic study technology is teaching systems by used information communication items and modern electronic systems. Electronic study has two types:

- 1) Retseption electron study – using television and audio visual devises, it is good opportunities for developing listening knowledge.
- 2) Interactive electronic study – it is improve the communication of teacher and student.

Interactive is that organize communication of technical items, computers, their information software and their users on our study subjects. Using contemporary technology on seminars gives great ability of independent learning, discussed important information and creating conclusion. Bukhora state university scientist have created electron manual on colloid chemistry, chemical technology and obtained certificates [1-3]. We have created electronic manual on bioorganic chemistry and obtained certificates. In future we are going to create electronic manuals on other chemical section.

Bioorganic chemistry manual has 14 themes: 1) the visuals of words on computer sciences 2) Presentation (the way of graphic information gives using opportunities for dynamic and sound activities) part about bioorganic chemistry. Every lecture has plans. In scientists part it was revealed famous scientists live and works were described by using pictures. As well as it was used PhET (physical education technology) on this manual for bioorganic chemical

laboratories. PhET (physical education technology) innovation models is Open Source and every people can use it. Models on PhET give opportunities for using doing some experiments, creating and modulate virtual laboratories. This PhET is adapted Uzbekistan state standards.

1- Picture. PhET software

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Fun, interactive, [research-based](#) simulations of physical phenomena from the PhET project at the University of Colorado.

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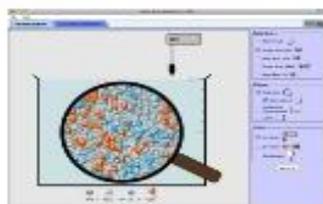
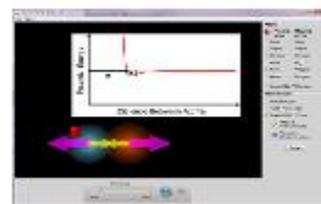
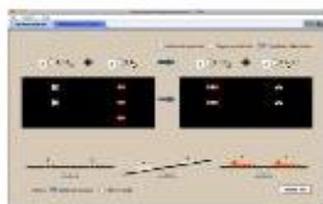
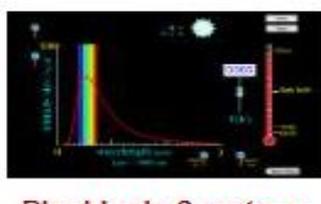
THE WILLIAM AND FLORA HEWLETT FOUNDATION
The William and Flora Hewlett Foundation

National Science Foundation

Excellence Center of Science and Mathematics Education at King Saud University

<p>▶ Run our Simulations</p> <ul style="list-style-type: none"> ▶ On Line ▶ Full Installation ▶ One at a Time 	<p>▶ Teacher Ideas & Activities</p> <ul style="list-style-type: none"> ▶ Search for lessons created by teachers using PhET simulations. ▶ Workshops 	<p>▶ Contribute</p> <ul style="list-style-type: none"> ▶ Provide ideas you've used in class ▶ Support PhET ▶ Translate Simulations 	<p>▶ Browse Sims</p> <p>Simulations >></p>
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**Acid-Base Solutions****Alpha Decay****Atomic Interactions****Balancing Chemical Equations****Balloons & Buoyancy****Balloons and Static Electricity****Beta Decay****Blackbody Spectrum****Build a Molecule**

The electronic manual – it is adapted using study method based on computer technology, study materials related to bioorganic chemistry, and learning scientific materials. This electronic manual is partly or fully covered the size study and contained information adaptation blocks, also adopted distance learning or independent study.

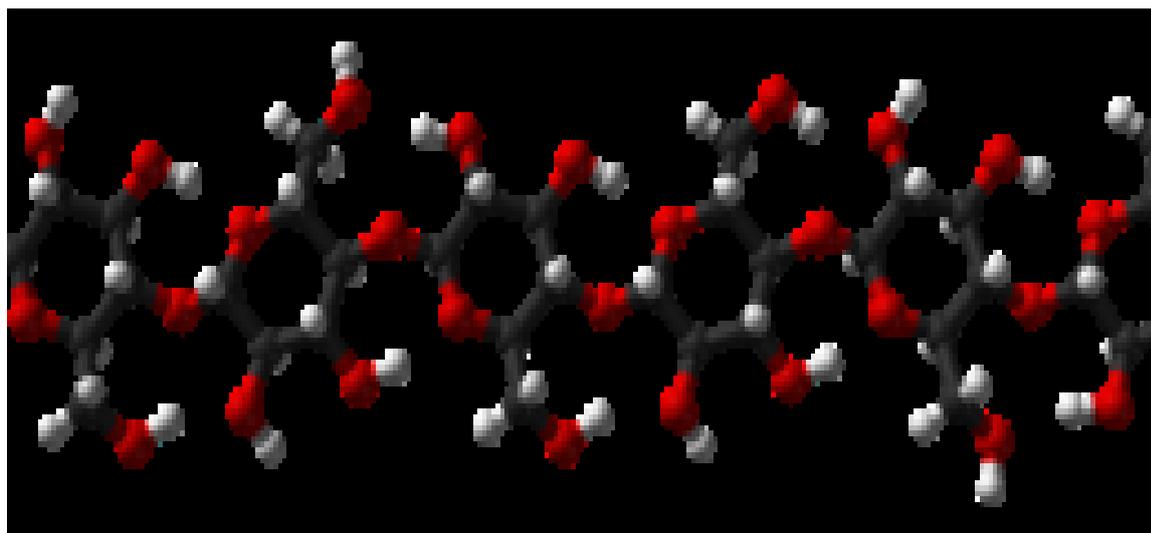
Electronic textbook is one of interactive technology, and gives opportunities of calculate student assessments based on independent study. Electronic textbooksystems give faster calculate abilities of student education level on study materials by test tasks.

The electronic manual and Electronic textbook have below parts:

1. Teaching part – it based hypertext and contain static and dynamic pictures.
2. Doing practice part – showing errors and carrying true conclusion.
3. Control part –creating test system.

The electronic manual and Electronic textbook have below basic properties:

1. Supply high degree study and education practices
2. Giving opportunities independent study and assessment of learning knowledge
3. Lecture and practical tasks creating developing information-study resource and rapidly renewed them
4. Presented text, other information materials by special navigation and illustration (multimedia items, pictures, diagrams and tables).



In conclusion, using electronic manual on bioorganic chemistry increase independent think, improve practice and achievements by high effective lessons.

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