



ЦЕНТЪР ЗА ОБУЧЕНИЕ – БАН

1000 София
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TEMPLATE FOR A SPECIALIZED DOCTORAL COURSE (in English)

Basic Information:

Course Title: **Radioisotope and radiopharmaceutical production.**

Lecturer: Prof. Doctor of science Alexander Strezov.

Phone: 0883705270.....

Email: alstrezov@gmail.com...

Total Teaching Hours: 60 educational hours...

Annotation (up to 150 words)

The course is directed to the students to be introduced in the methods for radioisotope and radiopharmaceutical production. The basic laws of radiochemistry and methods for purification, separation of isotopes – crystallization, precrystallisation, adsorption and collector separation, ion exchange and extraction are addressed. The theoretical basis of each method are discussed together with the methods of synthesis and purification. The lectures are illustrated by laboratory exercises for production, control, testing and clinical testing of the produced isotopes and pharmaceuticals.

Course content (brief description by topics or modules)

Topic / Module 1: Basic Laws of radiochemistry. Nuclear reactions.

Topic / Module 2: Radioisotope production....

Topic / Module 3: Radiopharmaceuticals..

Teaching and assessment methods

Lectures.....

Seminars.....

.Tests and Examination.....

Competencies acquired as a result of training (3–5 points)

Basic knowledge in radiochemistry and synthesis of radiopharmaceuticals

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Literature:

1. Основен курс по обща и приложна радиохимия, Л. Генов, Г. Касабов изд. Техника, София 1968.
1. Радиохимия, Ан. Несмеянов, изд. Химия, Москва, 1978.
2. Ядрена химия и радиохимия, Г. Фридландер, Дж. Кенеди, Дж. Милър, изд. Наука и изкуство, София 1970.
3. Физические основы радиохимии, А. Н. Мулин, Висшая школа, 1971..
4. Основи на съвременната радиационна дозиметрия, Ил. Мишев, Техника, София 1971.
5. Основы ядерной медицины, Р. Паркер, П. Смит, Д. Тейлор, Энергоиздат, Москва 1979.



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Additional information (optional) (e.g., special requirements, laboratory equipment, prior knowledge)

Radiochemical laboratory I class.....

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