

212Pb: Production and Applications

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Over the last twenty years targeted alpha therapy has demonstrated its high efficiency in treating various oncological diseases. ^{212}Pb , with its convenient half-life of 10.64 h, and its daughter alpha-emitter short-lived ^{212}Bi ($T_{1/2} = 1$ h), provides the possibility for the synthesis and purification of radiopharmaceuticals with minimum loss of radioactivity during preparation. It can be milked from a radionuclide generator via various techniques.

The main approaches applied for this purpose are considered and described, including chromatographic and other methods to separate ^{212}Pb from its parent radionuclide. The results of preclinical studies with an estimation of therapeutic and tolerant doses as well as recently initiated clinical trials are presented.

The speaker is a student or young scientist

Yes

Section

1. Nuclear technology and methods in medicine, radioecology

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