Therapeutic application of a mixture of 64/67Cu radioisotopes

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Copper radioisotopes, such as ^{64}Cu and ^{67}Cu, could be useful tools for diagnosis and therapy of cancers, due to the increased accumulation of Cu^{2+} ions in the tumor site. While ^{64}Cu can be produced with high specific activity using low energy biomedical cyclotrons and it is already commercially available, ^{67}Cu production is more challenging, due to the difficulties to obtain a high yield without the co-production of other Cu-isotopes, especially ^{64}Cu. Due to the favorable decay characteristics of both $^{64/67}$Cu radioisotopes, in this work the possibility of using a mixture of them for therapeutic purposes has been evaluated.

Sezione 5: Biofisica e fisica medica

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