

COMPARISON OF THE DOSE-DEPTH DISTRIBUTION OF ELECTRON BEAMS WITH MONOENERGETIC AND COMPOSITE SPECTRA OF ELECTRON KINETIC ENERGIES*

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The development of high-voltage high-current pulsed circuitry stimulates the creation of pulsed particle accelerators with operational characteristics appropriate for practical use. At the same time, continuous sources of electron beams are the traditional basis for the radiation technologies development. The paper presents an analysis of the beam depth-energy distribution for a monoenergetic electron beam and for a beam with a composite electrons kinetic energy spectrum [1] in terms of their effective practical use. It was shown that for a number of applications that require beam exposure depth limiting while providing a minimum dose, the use of a beam with composite electrons kinetic energy spectrum is preferable. The research results can be used for electron beam processing modes selection in the radiation technologies development.

REFERENCES

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