IRRADIATION OF A WHITEFLY BY SUBMOCROSECOND ELECTRON BEAM AT ATMOSPHERIC PRESSURE*

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A submicrosecond electron beam (up to 250 keV, 500 A, 200 ns) is used at atmospheric pressure for irradiation of a whitefly in this work. The electron beam was ejected from vacuum diode of pulsed electron accelerator directly to atmosphere without of drift chamber. Whitefly probes were irradiated at various distances from exit window of the accelerator. Energy distribution of the electron beam was measured for dose estimation. Lethal and shock effects were demonstrated for whiteflies at various distances and beam pulse number. Single pulse of the electron beam at distance 80 mm from exit window leads to total disinsection of the whitefly probe.

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