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Title:Frequency multiplying oscillator with an electron beam accelerated in a drift space
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Abstract:In a uniform acceleration region, the behavior of a velocity-modulated electron beam has been analyzed using a particle-in-cell code. By making use of one of the accelerated harmonic components of the velocity-modulated electron beam, we demonstrate a frequency multiplying oscillator for a compact THz emitter, which employs multiple electron beams and a higher order mode resonator to modulate the electron beam without an additional driving source. © 2012 American Institute of Physics.
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