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Abstract:Terahertz radiation generation via optical rectification of an amplitude modulated laser in an array of carbon nanotubes is explored. The laser of finite spot size, traveling perpendicular to the nanotubes, exerts a ponderomotive force on free electrons of nanotubes at the modulation frequency Ω. It sets in resonant electron oscillations of nanotubes whereby each nanotube acts as an oscillatory electric dipole, producing terahertz radiation. © 2012 Elsevier B.V.
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