

Abstract

High-Order Harmonic Generation (HOHG) from the bare ^{12}N nucleus has been theoretically studied. The linearly polarized laser with intensity and energy of 10^{27} W cm $^{-2}$ and 330 eV, respectively, is used for this process. The Schrödinger equation in 1D is numerically solved for potential that is the sum of Wood-Saxon, Coulomb and Spin-Orbit coupling potential. The wavefunction obtained is then used to calculate the yield of the different emitted frequencies. HOHG from the nucleus not only gave the photons of MeV energy but also the multi-plateau HOHG spectrum.