عنوان مقاله:

Vibrational spectra and assignments using ab initio and density functional theory analysis on the structure of amoxicillin

محل انتشار:

دوازدهمین سمینار شیمی فیزیک ایران (سال: 1388)

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خلاصه مقاله:

Amoxicillin is an antibiotic in the large class of penicillins. Penicillin was first produced on a large scale for human use in 1943 and was used to treat infections caused by bacteria. Penicillins work by killing the bacteria or preventing their growth. But quickly, it became obvious that this drug could bear improvement because bacteria started to develop resistance to penicillin. Amoxicillin is usually the drug of choice within the class because it is better absorbed, by oral administration, than other beta-lactam antibiotics. It is susceptible to degradation by β-lactamase producing bacteria, and so may be given with clavulanic acid to increase its susceptibility, by inhibiting β-lactamase. The penicillin's derivates like amoxicillin, exert their principal antibacterial activity by binding to penicillin binding proteins and inhibiting cell wall synthesis. Amoxicillin is frequently used in combination with other antibiotics for this purpose.

کلمات کلیدی:

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