## Accepted Manuscript

The Vibrational Spectroscopic studies and molecular property analysis of L-Phenylalanine using quantum chemical method

Mukunda Madhab Borah, Th. Gomti Devi

PII: S0022-2860(17)30142-4

DOI: 10.1016/j.molstruc.2017.02.010

Reference: MOLSTR 23404

To appear in: Journal of Molecular Structure

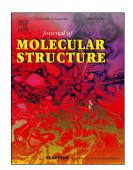
Received Date: 1 October 2016

Revised Date: 20 December 2016

Accepted Date: 2 February 2017

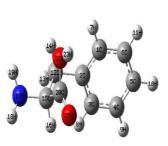
Please cite this article as: M.M. Borah, T.G. Devi, The Vibrational Spectroscopic studies and molecular property analysis of L-Phenylalanine using quantum chemical method, *Journal of Molecular Structure* (2017), doi: 10.1016/j.molstruc.2017.02.010.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



## ACCEPTED MANUSCRIPT

Raman and IR technique have been used to study the vibrational wave numbers. All the normal modes have been assigned and the scaled theoretical results found to be in a good agreement with the experimental findings. The molecular parameters, i.e. the bond lengths and bond angles have been calculated to gain more insights of this molecule. HOMO-LUMO energy gap is also calculated in order to study the properties of electrical the biomolecule. The study is extended to calculate the different thermo-dynamical parameters.



Molecular structure of L-Phenylalanine

TheVibrationalSpectroscopicstudiesmolecularpropertyanalysisofL-Phenylalanineusingquantum chemical method

Mukunda Madhab Borah and Th. Gomti Devi<sup>\*</sup>

Download English Version:

## https://daneshyari.com/en/article/5160460

Download Persian Version:

https://daneshyari.com/article/5160460

Daneshyari.com