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The vibrational spectroscopic studies and molecular property analysis of Estradiol, Tamoxifen and their interaction by density functional theory

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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 electrical properties of the biomolecule. The study is extended to calculate the Natural Bond Orbital and different thermo-dynamical parameters.

## ACCEPTED MANUSCRIPT

Molecular Electrostatic Potential (MEP) surface of Tamoxifen

The Vibrational Spectroscopic studies and molecular property analysis of Estradiol, Tamoxifen and their interaction by Density functional theory Mukunda Madhab Borah and Th. Gomti Devi<sup>\*</sup>

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