

General comments:

*This manuscript takes many contents to discuss results from computed potential energy and reaction energy. However, there is no any information to explain this in the introduction and method.*

**In gas-phase mass spectrometry experiments, the reaction energy in the form of kinetic energy required to cleave interatomic bonds is measured during CID (Collision-Induced Dissociation) experiments by effective collisions with neutral Argon gas. The potential energy surface, or the potential energy, is represented by the computationally predicted reaction mechanism with transitional and stationary molecular energy levels. The reaction/kinetic energy is measured dynamically by the mass spectrometry experiment, while the potential energy is proposed by the model. However, both are comparable since they describe the same phenomenon and the same molecular transformations.**

Special comments:

*Line 50-55. It needs to give more information about MS/MS techniques.*

**Citation added.**

*Line 129, 292. When you mention the supplementary information. Please explain where the information comes from. It is hard to find out where it is.*

**Appropriate references have been made.**

*Line 156-157. It should use some references to explain the different DFT methods and give more information about those methods.*

**More information about Gaussian 09 program were added in SI, section 4. Computed data for norpinonic acid.**

*Figure 7. This figure gives a little information. However, this figure is too big. It is better to make it more sample and useful.*

**The figure has been moved to the SI, and a smaller and more readable table has been placed in the article.**