Study of the Role of Anti–Cancer Molecules with Different Sizes for Decreasing Corresponding Bulk Tumor Multiple Organs or Tissues

A Heidari

Faculty of Chemistry, California South University, 14731 Comet St. Irvine, CA 92604, USA

Corresponding author: A Heidari, Faculty of Chemistry, California South University (CSU), 14731 Comet St. Irvine, CA 92604, USA, Tel: 1-775-410-4974; E–mail: Scholar.Researcher.Scientist@gmail.com

Received: 09 June 2016; Accepted: 20 June 2016; Published: 23 June 2016

Citation: Heidari A. Study of the Role of Anti–Cancer Molecules with Different Sizes for Decreasing Corresponding Bulk Tumor Multiple Organs or Tissues. Arch Can Res. 2016, 4: 2.

Commentary

The intermolecular forces between anti–cancer molecules such as Cisplatin, Carboplatin, Oxaliplatin, Nedaplatin, Lobaplatin, Heptaplatin, Dicycloplatin, Eleutherobin, Epothilone B, Discodermolide and Taxol (Figures 1 and 2) and tumor multiple organs or tissues are of great importance in many areas of science including medicine, chemotherapy, pharmacology, medicinal chemistry, pharmaceutical chemistry, biochemistry and so on [1–21]. As a result, these molecular systems have received a great significant of attention in both computational and theoretical aspects [22–32]. In this commentary, all calculations are carried out by Gaussian 09. Geometry optimization for each molecule are be fulfilled at HF, PM3, MM2, MM3, AM1, MP2, MP3, MP4, CCSD, CCSD(T), LDA, BVWN, BLYP and B3LYP computational methods with 31G, 6–31G*, 6–31+G*, 6–31G(3df, 3pd), 6–311G, 6–311G* and 6–311+G* basis sets, respectively. It should be noted that calculations are accomplished at 298 K and 0 K at HF, PM3, MM2, MM3, AM1, MP2, MP3, MP4, CCSD, CCSD(T), LDA, BVWN, BLYP and B3LYP computational methods with 31G, 6–31G*, 6–31+G*, 6–31G(3df, 3pd), 6–311G, 6–311G* and 6–311+G* basis sets, respectively. Also, the spectroscopic, structural and thermodynamic properties were investigated.

On the other hand, chemical behavior of Cisplatin, Carboplatin, Oxaliplatin, Nedaplatin, Lobaplatin, Heptaplatin, Dicycloplatin, Eleutherobin, Epothilone B, Discodermolide and Taxol as anti–cancer molecules has been investigated very extensively because of their importance in chemical and biological systems. Furthermore, study of Cisplatin, Carboplatin, Oxaliplatin, Nedaplatin, Lobaplatin, Heptaplatin, Dicycloplatin, Eleutherobin, Epothilone B, Discodermolide and Taxol as anti–cancer molecules with different sizes can help to understand how anti–cancer molecules bulk limit as the tumor size decreases. Due to the complexity of the interaction of Cisplatin, Carboplatin, Oxaliplatin, Nedaplatin, Lobaplatin, Heptaplatin, Dicycloplatin, Eleutherobin, Epothilone B, Discodermolide and Taxol as anti–cancer molecules which is dominated by the Hydrogen bonding, the chemical structures of Cisplatin, Carboplatin, Oxaliplatin, Nedaplatin, Lobaplatin, Heptaplatin, Dicycloplatin, Eleutherobin, Epothilone B, Discodermolide and Taxol as anti–cancer molecules are complex and difficult. In this commentary, all calculations are carried out by Gaussian 09. Geometry optimization for each anti–cancer molecule is carried out at HF, PM3, MM2, MM3, AM1, MP2, MP3, MP4, CCSD, CCSD(T), LDA, BVWN, BLYP and B3LYP computational methods with 31G, 6–31G*, 6–31+G*, 6–31G(3df, 3pd), 6–311G, 6–311G* and 6–311+G* basis sets, respectively. In addition, calculations are accomplished at 298K and 0K at HF, PM3, MM2, MM3, AM1, MP2, MP3, MP4, CCSD, CCSD(T), LDA, BVWN, BLYP and B3LYP computational...
methods with 31G, 6–31G*, 6–31+G*, 6–31G(3df, 3pd), 6–311G, 6–311G* and 6–311+G* basis sets, respectively. Moreover, the spectroscopic, structural and thermodynamic properties were studied.

Furthermore, Cadmium Oxide (CdO) nanoparticles are used as anti–cancer Nano drugs. They make a strong complex with DNA/RNA of human cancer cells which in human metabolism complexes have vital role. Each Nano compound or Nano material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is named a material that perturbs the structure and normal reactivity of a vital complex is

References

1 oxaliplatin infusion detects subclinical peripheral neuropathy and predicts clinically overt chronic neuropathy in gastrointestinal malignancies. Clinical Colorectal Cancer 15: 37-46.


