عنوان مقاله:

Computational study of Folat-conjugated with two platinum nanopartical and 6-Mercapto-1-Hexanol linker for cancer treatment with n anotechnology applications

محل انتشار:

دومین کنفرانس ملی توسعه کاربردهای صنعتی اطلاعات، ارتباطات و محاسبات (سال: 1392)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

There are over 022 different known cancers that afflict humans.The causes of cancer are diverse, complex, and only partially understood. Many things are known to increase the riskof cancer, including tobacco use, dietary factors, certain infections, exposure to radiation, lack of physical activity,obesity, and environmental pollutants Platinum nanoparticles (PtNPs) provide non-toxic carriers for drug and gene delivery applications. An additional attractive feature of PtNPs is theirinteraction with thiols, providing an effective and selective means of controlled intracellular release. selective targeting offolate-receptor positive cancerous cells. The linker chosen were 6-mercapto-1-hexanol (MH) with nanoconjugate productsnamed Folate-MH-PtNP. We report the folate-receptor tissue.This demonstrates that folate targeting is effective in selecting for specific cell populations. We also know that folate receptor (FR) is a confirmed tumor-associated antigen that binds folate and folate–drug conjugates with very high affinity and shuttlesthese bound molecules inside cells via an endocytic mechanism. Now we have a folate connecting by the linker 6-mercapto-1-hexzanol to two Platinum nanoparticles (PtNP). In this report, the Molecular Structure, and some Geometrical properties (Bond lengths and Bond angles) folate-6mercapto-1-hexzanol- PtNP were investigated using the Density Functional Theory (DFT) calculations[1.0.1].

کلمات کلیدی:

DFT calculations, cancer, 6-mercapto-1-hexanol, folate, folate receptor, folic acid , Platinum nanoparticle

لینک ثابت مقاله در پایگاه سیویلیکا: