that BDMC and DABC bind to the surface of the protein by four and one hydrogen bond interactions, respectively. Finally, molecular dynamics simulation results show that the binding of BDMC to BLG causes the conformational change of BLG and the structure of binding site remains rigid during the simulation of two complexes.

Keywords: Bisdemethoxycurcumin, Diacetylbisdemethoxycurcumin, β-lactoglobulin.

Abstract No.72

A Comparison of Denaturation of Trypsin in the Presence of Urea and Guanidine Hydrochloride

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Trypsin (EC 3.4.21.4) is a serine-protease with a polypeptide chain of 223 amino acid residues and six disulfide bridges that hydrolyzes peptide bonds at the carboxylic end of the amino acid residues arginine (R) and lysine (K). It is a globular protein with predominance of antiparallel β-sheet secondry structure and it has two domains with similar structures. In this study, denaturation of trypsin in the presence 2 mM, 4 mM, 6 mM and 7.5 mM of urea and GdnHCl has been studies by spectrofluometry and UV-VIS spectrophotometry in different pH (3, 8 and 10) at 308 K. The intensity of the emission spectrum has a direct relationship with the increase of concentration of urea and GdnHCl. Adding of guanidine to 0.25 mg/ml trypsin solution, the intensity of the spectrum was increased more than adding urea and 13 nm red shift occurred with respect to native curve. Adding of 7.5 mM of urea to trypsin solution at pH 3.0, the intensity of the spectrum was reduced with respect to native curve. The value of absorbance was taken at 280 nm. The final results denote unfolding of trypsin occurred in the presence of GdnHCl and urea and the ionic nature of GdnHCl masks electrostatic interactions in trypsin, a phenomenon that was absent in the presence of urea.

Keywords: Trypsin, Urea, Guanidine Hydrochloride, Spectrophotometry, Spectrofluometry.

Abstract No.73

Synthesis, Characterization, Cytotoxicity and Interaction of a Newly Designed Anti-Cancer Palladium(II) Complex with Calf Thymus DNA

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Deoxyribonucleic acid (DNA) is the primary target molecule for most anticancer platinum- and palladium-based drugs[1]. Several pd(II) and pt(II) complexes of dithiocarbamate derivatives have been prepared[2]. Here we report Synthesis, Characterization, Cytotoxicity and interaction of a palladium(II) complex of formula [Pd(en)(bpy)](NO3)2(where en is ethylendiamine and bpy is 2,2′-bipyridine) with calf thymus DNA(CT-DNA). The cytotoxicity assay of the complexe has been performed on chronic myelogenous leukemia cell line, K562, at micromolar concentration. This complexe showed cytotoxic activity far better than that of cisplatin under the same experimental conditions. The binding parameters of the complexe with CT-DNA was investigated using UV-visible and fluorescence techniques. It shows the ability of cooperatively intercalating in CT-DNA. Gel filtration studies demonstrated that palladium complex could not cleave the DNA. In the interaction studies between this Pd(II) complexe with CT-DNA, several binding and thermodynamic parameters have been determined, which may provide deeper insights into the mechanism of action of these types of complexes with nucleic acids.

Keywords: DNA Binding and Thermodynamic Parameters, Anti-Tumor Activity, Pd(II) Complexe.

Abstract No.74

Studies on the Anti-tumor Activity of an Endostatin Fragment

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Angiogenesis, a complex multistep process including the proliferation, migration and differentiation of endothelial cells, microtubule formation, and sprouting of new capillary branches, is a critical event in growth and metastasis of cancer and prevention of angiogenesis is one of the best strategies for treatment of cancer. Endostatin, the C-terminal fragment of collagen XVIII, is an endogenous inhibitor of angiogenesis that inhibits tumor growth without toxicity and acquired