and the stereochemical quality of protein structures and molecular dynamics simulation of the refined models was performed. The structural analysis showed the key features of IceA1 relative to IceA2 that may illustrate their different potentiality for interaction with possible ligands or inhibitors.

Keywords: Helicobacter Pylori, IceA, Peptic Ulcer Disease, Comparative Modeling.

Abstract No.84

Suicide Inactivation of Horseradish Peroxidase by Aminophenol Using Voltametric Method

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Horseradish peroxidase (HRP) is the enzyme which catalysis the oxidation of variety of molecules in the presence of hydrogen peroxide (H_2O_2) and used as a label in biosensors. In such biosensors, HRP detect the biological reaction (e.g. antigen-antibody), which essentially is applicable for determination of desired analyte. The use of peroxidase substantially increases the sensitivity of this method.In this report, we studied the reaction of HRP with o-aminophenol (o-AP) as a substrate. The oxidation of o-AP is owing to the presence of two functional groups, OH and NH_2, which undergo hydrolysis of o-AP and produce the reactive soluble intermediates such as 0-quinone imine. Finally this intermediate is changed into 2-aminophenoxazine-3-one. In order to identify the effect of o-AP on inactivation of peroxidase, we used cyclic voltammetry and glassy carbon as working electrode. After optimization of the results, it was revealed that to get the maximum efficiency of enzyme, the optimum concentration for H_2O_2 ando-AP must be less than 10 and 2 mM, respectively.

Keywords: Horseradish peroxidase, Aminophenol, Hydrogen peroxide, Cyclic Voltammetry.

Abstract No.85

Protein Structure and Function in Different Surface Nanoparticle: Applications in Biological Area and Biomedicine

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The conformational changes of glucose oxidase (GOx) in the negative charge colloidal gold nanoparticles (NC-GNPs), positive charge colloidal gold nanoparticles (PC-GNPs), mercaptopurine:GNPs and 11-mercaptoundecanoic acid:GNPs as a hydrophobic and hydrophilic GNPs was investigated by various spectroscopic techniques including UV-Vis absorption, fluorescence and circular dichroism (CD) spectroscopies. Moreover, the fluorescence quenching constant and binding parameters after the formation of the GOx:GNPs conjugates follows by Stern-Volmer (S-V) plots. Size and charge of NC-GNPs and PC-GNPs was determined by zeta sizer and zeta potential analyzer, which their size and charge are 83.7 nm (-16.4 mV) and 90.4 nm (+8.44 mV) respectively. Also GOx activity and amount of protein adsorption on GNPs was determined. The results showed that NC-GNPs have least conformational changes for GOx at both secondary and tertiary structure levels. And hydrophobic-GNPs with the minimum protein adsorption have a maximum conformational change

Keywords: Negative Charge Colloidal Gold Nanoparticles, Positive Charge, CD Spectroscopy, Glucose Oxidase.

Abstract No.86

Interaction Studies Between a [(phen)Pd µ-(S2CNH(CH2)3NHCS2)Pd(phen)](NO3)2 anti-Tumor Complex and Calf Thymus DNA

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Palladium(II) complexes are very interesting candidates for alternative platinum-based drugs, because the coordination geometry and complex forming processes of palladium(II) are very similar to those of platinum(II).Thus we focused on the interaction of calf thymus DNA (CT-DNA)with a new palladium(II) anticancer complex offormula [(phen)Pd µ-(S2CNH(CH2)3NHCS2)Pd(phen)](NO3)2 (where phen is 1,10-phenanthroline and S2CNH(CH2)3NHCS2is propylenbisdithiocarbamato).This interaction was studied by spectroscopic techniques such as UV-Vis and fluorescence in 30mM