

## عنوان مقاله:

Effects of Lead-HSA interactions on fibrillation of protein

## محل انتشار:

پانزدهمین همایش بیوشیمی فیزیک ایران (سال: 1397)

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## خلاصه مقاله:

These days, general population is exposed to lead from air, food and other resources. So, lead (Pb) deserves special attention since this metal is the most toxic biochemical agent responsible for the world's most common environmental caused disease. Pb has high-affinity metal-binding proteins. It is reported that lead is a potent neurotoxin for human being especially for the developing children, and in the brains of patients with Alzheimer disease, Pb 2+ at high concentrations is found [1]. Protein-lead interaction shows that lead is capable of affecting the functional properties of proteins. In this study, the samples of protein were incubated at 68°C under physiologic pH in a water bath and the kinetic of fibril formation, changes in protein structure and reactive oxygen species generation were determined. Our studies showed the binding of Pb to HSA induced aggregation, fibril formation and caused rise to reactive oxygen species. Taking together our results and those of numerous other studies, we hypothesize that Pb-induced conformational changes enhances the neurotoxicity of proteins fibrils and lead to development of amyloidogenesis disease.

## کلمات کلیدی:

.Lead, HSA, Fibrillation

## لینک ثابت مقاله در پایگاه سیویلیکا:

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