

Internal Webinar

Oxidative Stress-Induced Structural Changes in Proteins: A Biophysical Investigation

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Reactive oxygen species (ROS) play a crucial role in various physiological processes. A high level of ROS leads to oxidative stress that damages biomolecules and is linked to many diseases. It is responsible for the loss of structure and functionality of proteins. Herein, we investigated the effect of oxidative stress on different proteins, namely Elastin, Human Serum Albumin (HSA), and Lysozyme, using various biophysical techniques. We have conducted a detailed investigation via multiple modes of oxidative stress, like metal-catalysed oxidation (MCO), UVC irradiation, and glycation. Through the various techniques, we deciphered the accompanying conformational changes and the dynamics involved, wherever applicable.

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12:00 Hrs

