

Nanoparticles have numerous biomedical applications including drug delivery, bone implants and imaging. A protein corona is formed when proteins existing in a biological system cover the nanoparticle surface. The formation of a nanoparticle-protein corona, changes the behaviour of the nanoparticle, resulting in new biological characteristics and influencing the circulation lifetime, accumulation, toxicity, cellular uptake and agglomeration.

This book provides a detailed understanding of nanoparticle-protein corona formation, its biological significance and the factors that govern the formation of coronas. It also explains the impact of nanoparticle-protein interactions on biological assays, ecotoxicity studies and proteomics research. It will be of interest to researchers studying the application of nanoparticles as well as toxicologists and pharmaceutical chemists.

Front cover image
Nanoparticle-protein corona,
concept illustration
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The field of toxicological research is continually expanding and diversifying driven by the need to understand the human and ecological risks of exposure to chemicals and other toxicants. This series is devoted to coverage of modern toxicology and assessment of risk and is responding to the resurgence of interest in these areas of scientific investigation.

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