Bio-Layer Interferometry for Rapid Biomolecular Kinetics and Quantitation

Octet systems incorporate Bio-Layer Interferometry (BLI), a label-free optical biosensor technology, to provide accurate, high-value, real time information on molecular interactions. Besides monitoring of biomolecular interaction kinetics (k_a, k_d and K_D), BLI performs comprehensive characterization across a broad range of applications (e.g. protein concentration analysis, contaminants quantitation, epitope binning, off-rate screening, etc.) making it a valuable alternative to competitive bioanalytical methods.

The platform provides Dip and Read™ format which allows direct, simple and fast analysis of samples even in crude media, without microfluidics and clogging. Due to their high throughput and automated performance, Octet instruments can be implemented in every stage of discovery and development process, from early stage research, screening and optimization processes, over pre-clinical and clinical trials to the final manufacturing monitoring and quality control.

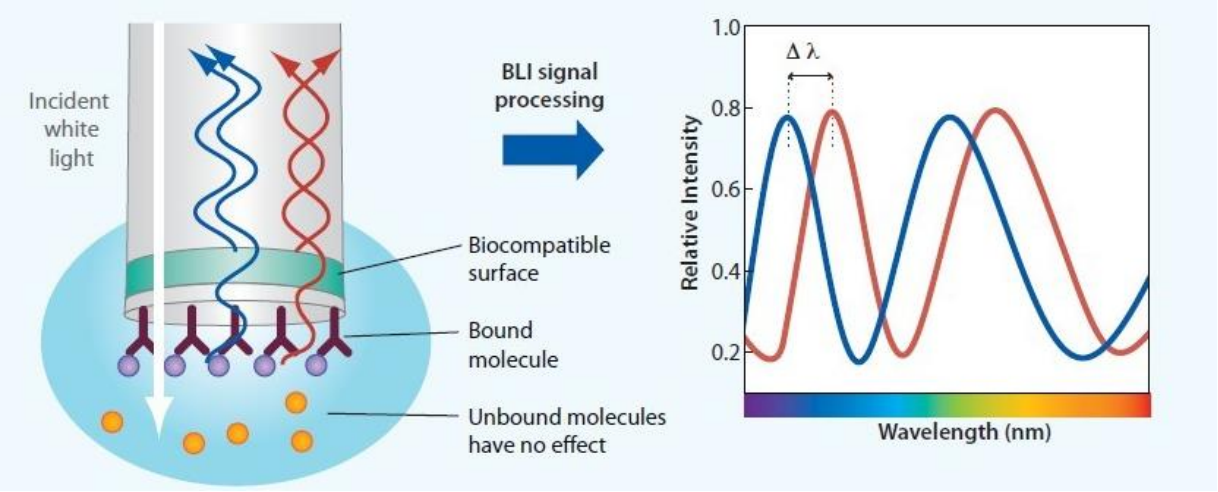

Figure 1: BLI is an optical analytical method that analyzes the interference pattern of white light reflected from two surfaces. Changes in the optical thickness and density due to molecules bound to the biosenor surface causes a shift in the interference pattern that is measured in real time.