**High photon flux Diamond B23 Beamline for Circular Dichroism and its Applications.**

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One of the major advantages of using the beamline B23 of the 3rd generation synchrotron (Diamond Light Source, Oxfordshire) is that it generates a highly collimated micro beam light with photon flux in the vacuum- and far-UV regions several orders of magnitude greater than those produced by Xenon light sources of bench-top CD spectropolarimeters. This makes B23 the ideal beamline to study small volumes of samples using capillaries and/or long pathlength cells (10 cm) for both concentrated and diluted solutions ranging from micro- to nano-Molar concentration. These measurements are conducted without using any focusing and collimating lenses in the sample compartment.

High UV photon flux is known to denature/degrade biopolymers. This effect can be controlled to be negligible. Several examples of far-UV denaturation of proteins and ligand-protein complexes using B23 beamline will be described