

## **VUV irradiation of plasmid DNA – damage analysis.**

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UV interactions with plasmid DNA have been widely investigated yet more experiments are needed to properly understand this phenomena's behaviour.

In our investigations we are working toward a full set of measurements that will show how UV light interacts with plasmid DNA as a function of the energy of the radiation. In addition to the formation of single and double strand breaks, we are also trying to look for other types of damage that can be induced upon irradiation. Using a biotinylated cysteine probe and an aldehyde reactive probe we should be able to determine if apurinated sites and 2'-deoxyribolactones were formed, and if so, how many. It should also be possible to determine if any cross links between bases were formed in the DNA helix itself.