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Title (English) Quantum chemical study of the UV-induced psoralen–DNA reaction	
Title (Swedish)	
Abstract Psoralens comprise a family of small, aromatic, and hydrophobic molecules with the ability to intercalate between base pairs of DNA. Intercalated psoralen, when irradiated with light in the UVA region, can covalently bind to both strands of DNA. Such crosslinks can form loops in DNA which eventually inhibit the replicatory machinery of the cell. This in turn is believed to be of relevance in the treatment of certain skin diseases. The present work is a theoretical study of the addition of psoralen to DNA. Several experimental observations are verified <i>in silico</i> , and possible explanations for a few others are offered.	
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