

Graphical synopsis

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Corrole photochemistry

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Invited paper: This review provides a comprehensive overview of corrole photochemistry. Corroles are most often utilized as photosensitizers that transfer energy or an electron to molecular oxygen ($^3\text{O}_2$), generating singlet oxygen ($^1\text{O}_2$) and superoxide ($\text{O}_2^{\cdot-}$), respectively. These reactive oxygen species can be used to drive chemical reactions, or kill cells in a process known as photodynamic therapy. Although less explored, light can directly activate M–L bonds to generate radicals that perform chemical reactions.

Keywords: Corrole; Diamond Jubilee Issue; photochemistry; photosensitizer; photodynamic therapy; singlet oxygen; oxygen atom transfer.

