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STABLE DYE-SENSITIZED PHOTOCATALYSTS FOR PHOTODECOMPOSITION OF WATER

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Semiconductor photocatalysts that photo-oxidise water in the presence of sacrificial electron aceeptors are well known. Achieving the same with sensitized semiconductor photocatalysts is much more difficult as the dyes undergo oxidative photodegradation. It is noted that several p-type semiconducting particles when sensitized and platinized acquire the ability to photo-oxidise water. A platinized catalyst consisting of two dyes where the outer absorbs at a shorter wavelength could even photodecompose water into oxygen and hydrogen.

References

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