



Effective Visible Light Photocatalytic Degradation of Congo Red And Fast Sulphon Black F Using H₂O₂ Sensitized BiVO₄

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Accepted on 4th January 2016

ABSTRACT

BiVO₄ prepared by solid-state metathesis is used as photocatalyst to degrade 5ppm Congo red and 20ppm Fast sulphon black F dyes in presence of external oxidant H₂O₂. Congo red and Fast sulphon black F got degraded in 90min and 30min respectively under visible light irradiation. BiVO₄ and H₂O₂ exhibited synergetic effect in generating [•]OH free radicals which enhanced the photocatalytic efficiency.

Keywords: Photocatalysis, Congo red, Fast sulphon black F, Bismuth vanadate, Solid-State metathesis.
