



## Stable Photoinduced Separated Charge State in Viologen Halometallates: Some Key Parameters

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Auteur	Leblanc, Nicolas [1], Allain, Magali [2], Mercier, Nicolas [3], Sanguinet, Lionel [4]
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Résumé en anglais	<p>With the aim to define key parameters causing the photochromic properties of (MV)[Bi<sub>2</sub>Cl<sub>8</sub>] and (MV)(4)[Bi<sub>6</sub>Cl<sub>26</sub>] (MV<sup>2+</sup>, methylviologen; 1,1-dimethyl-4,4-bipyridinium), the effects of substituting Bi by Sb, Cl by Br, or MV<sup>2+</sup> by MOV<sup>2+</sup> (1,1-dimethoxy-4,4-bipyridinium) or MeMOV<sup>2+</sup> (1-methyl-1-methoxy-4,4-bipyridinium) on the photoinduced charge transfer properties of such viologen halometallates are explored. It appears that only salts containing chlorobismuthate anions undergo a color change upon UV irradiation and that the nature of viologen entities has a key role in the process. We also suggest that a key parameter for observing the stable photoinduced separated charge state in chlorobismuthate viologen hybrids is a high chloride/viologen ratio, rather than the size of the anionic oligomer, as observed in the previously reported unique series (MV)((2n+2)/2)[Bi<sub>2n</sub>Cl<sub>8n+2</sub>].</p>
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### Liens

[1] [http://okina.univ-angers.fr/publications?f\[author\]=19119](http://okina.univ-angers.fr/publications?f[author]=19119)

[2] <http://okina.univ-angers.fr/magali.allain/publications>

[3] <http://okina.univ-angers.fr/nicolas.mercier/publications>

[4] <http://okina.univ-angers.fr/lionel.sanguinet/publications>

[5] <http://okina.univ-angers.fr/publications/ua2651>

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