



N-Methyl-4,4-bipyridinium and N-Methyl-N -oxide-4,4 -bipyridinium Bismuth Complexes - Photochromism and Photoluminescence in the Solid State

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Résumé en anglais	Three bismuth complexes based on N-methyl-4,4-bipyridinium (hMV(+)), (hMV)[Bi(hMV)Cl-5] (1), and N-methyl-N-oxide-4,4-bipyridinium (MVO+), [Bi(MVO)X-4(dmsO)]center dot dmsO [X = Cl (2), Br (3)], are reported. All three compounds show luminescence in the solid state with maxima at 545 nm (yellow for 1) and 560 nm (orange for 2 and 3) with quantum yields up to 10 %. Upon UV irradiation, 1 undergoes a color change from white to blue accompanied by a reduction of the photoluminescence intensity. The analysis of the crystal structure of the three complexes points to a photoinduced charge-transfer (PICT) process at the origin of the photochromism in 1.
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