

**Название публикации:**

The First Example of Electron Phototransfer with the Participation of Two-Decker Lanthanide Phthalocyaninate

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**Сведения об издании:**

Protection of Metals and Physical Chemistry of Surfaces

Volume 54, Issue 2, 1 March 2018, Pages 170-173

**Аннотация:**

The photochemical activity of the anionic form of two-decker ytterbium and lutetium phthalocyaninates ( $\text{LnPc}_2$ ,  $\text{Ln} = \text{Yb, Lu}$ ) is observed in the process of electron transfer to 2-methyl-1,4-naphthoquinone (MNQ). Under illumination of solutions of  $\text{LnPc}_2$  ( $1 \times 10^{-5}$  mol/L) and MNQ ( $5 \times 10^{-5}$  mol/L) in dimethyl formamide by light with wavelength  $\lambda_{\text{ph}} > 630$  nm, the anionic form of the two-decker phthalocyaninate  $[(\text{Pc}^{2-})\text{Ln}^{3+}(\text{Pc}^{2-})]^-$  passes into the neutral monoradical form  $[(\text{Pc}^{2-})\text{Ln}^{3+}(\text{Pc}^-)]^{\bullet}$ . The photochemical redox process is accompanied by accumulation of the reduced form of MNQ. The observed effect is the first example of electron phototransfer with the participation of two-decker lanthanide phthalocyaninates. © 2018, Pleiades Publishing, Ltd.

**Ключевые слова:**

2-methyl-1,4-naphthoquinone, electron phototransfer, lanthanides, phthalocyanines, redox transitions, two-decker complexes