

# Photooxidation of Dicyanoaurate(I) Induced by Metal-to-Ligand Charge Transfer Excitation

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The irradiation of  $[\text{Au}(\text{CN})_2]^-$  in oxygen-saturated acetonitrile leads to photooxidation of Au(I). In the presence of additional chloride  $[\text{Au}(\text{CN})_2\text{Cl}_2]^-$  is formed with  $\phi = 0.5 \times 10^{-4}$  at  $\lambda_{\text{irr}} = 254 \text{ nm}$ . It is assumed that  $[\text{Au}(\text{CN})_2]^-$  in its metal-to-ligand charge transfer state undergoes an excited state electron transfer to oxygen in the primary photochemical step.

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