The exceptional near-infrared luminescence properties of cuprorivaite (Egyptian blue)

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Abstract

Cuprorivaite (CaCuSi(4)O(10), also known as Egyptian blue) exhibits an exceptionally high emission quantum efficiency in the near-infrared region (lambda(max) = 910 nm, Phi(EM) = 10.5%) and a long excited state lifetime (107 mus); these properties make it appealing for several applications in the fields of biomedical analysis, telecommunications and lasers.

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- Silicates / chemistry*

Substances

- Coloring Agents
- Silicates
- cuprorivaite
- Copper