

**substance:**  $\text{Eu}_2\text{O}_3$

**property:** crystal structure, physical properties

$\text{Eu}_2\text{O}_3$  [88L]

**structure:** cubic

**activation energy for conductivity**

$E_A$	1.84 eV	$T = 800 \dots 1200 \text{ K}$ ,	energy band diagram: Fig. 1
		val. band- $4f^7$	

**conductivity**

$\sigma$	$4.63 \cdot 10^1 \text{ } \Omega^{-1} \text{m}^{-1}$	p-type
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**mobility**

$\mu_p$	$0.327 \text{ cm}^2 \text{V}^{-1} \text{s}^{-1}$	$T = 900 \text{ K}$
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**References:**

88L Lal, H.B., Kanchan Gaur: J. Mater. Sci. 23 (1988) 919.

**Fig. 1.**

Energy band diagram for rare-earth sesquioxides [88L].

