

substance: Nd₂O₃

property: crystal structure, physical properties

Nd₂O₃ [88L]

structure: hexagonal

activation energy for conductivity

E_A	2.36 eV	$T = 700 \dots 1200 \text{ K}$,	energy band diagram: Fig. 1
		4f ³ -cond. band	

conductivity

σ	$3.16 \cdot 10^3 \text{ } \Omega^{-1} \text{ m}^{-1}$	n-type
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mobility

μ_n	$0.188 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$	$T = 900 \text{ K}$
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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].

