

Specification Sheet

Y_{2.97}Nd_{0.03}Al₅O₁₂, Purity: 99%, >300nm

Stock No: NS6130-10-1099, CAS: 12005-21-9

Product	:	Yttrium Aluminium Neodymium doped
Stock No	:	NS6130-10-1099
CAS	:	12005-21-9
Purity	:	99%
APS	:	>300nm
HS Code	:	9001900045
Molecular Formula	:	Y _{2.97} Nd _{0.03} Al ₅ O ₁₂
Molecular Weight	:	596.7g/mol
Density	:	4.55 g/cm ³
Melting Point	:	1970 °C
Crystal Structure	:	Cubic
Hardness	:	8-8.5
Weight of Nd	:	0.725%
Atoms of Nd per unit volume	:	1.38×10 ²⁰ /cm ³
Emission wavelength	:	1064 nm
Transition	:	4F _{3/2} → 4I _{11/2}
Duration of fluorescence	:	230 μs
Thermal Conductivity	:	0.14 W•cm ⁻¹ •K ⁻¹
Specific heat capacity	:	0.59 J•g ⁻¹ •K ⁻¹
Thermal expansion	:	6.9×10 ⁻⁶ K ⁻¹
dn/dT	:	7.3×10 ⁻⁶ K ⁻¹
Young's modulus	:	3.17×10 ⁴ K•g/mm ⁻²
Resistance to thermal shock	:	790 W•m ⁻¹
Main Inspect Verifier	:	Manager QC

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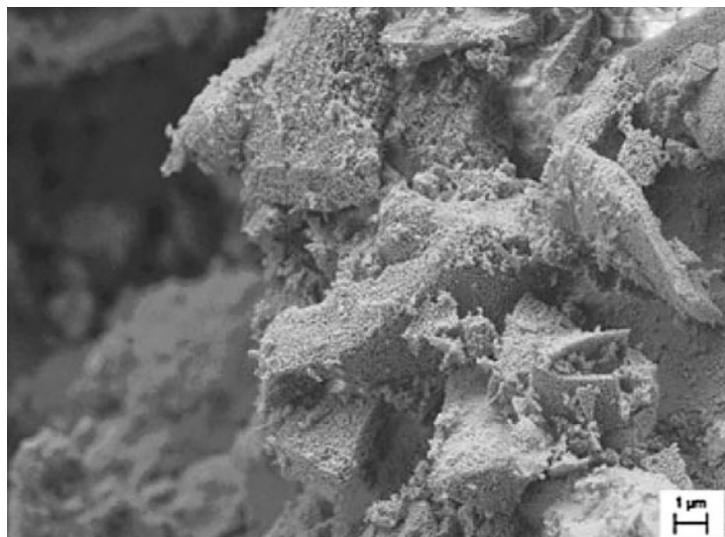


Note: Product Specification are subject to amendment and may change over time



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Characterization of $Y_{2.97}Nd_{0.03}Al_5O_{12}$, Purity: 99%, $>300nm$



Yttrium Aluminium Neodymium Doped



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