

Certificate of Analysis (CoA)

Nov. 11, 2025

Product Name: Gadolinium Titanate Sputtering Target**Chemical Formula:** GdTiO₃**Purity:** 99.9% (3N)**Dimensions:** Ø50.8 mm × 3.0 mm (±0.1 mm)**Backing Plate:** Indium bonded to Oxygen-Free Copper Plate, 2.0 mm thick**Keeper:** With Magnetic Keeper**Quantity:** 1 pc**Lot Number:** CSJM-251110TB**Manufactured by:** Thin-Film Materials

Physical Description

- Form: Ceramic sputtering target
 - Appearance: Dark gray to black dense sintered surface
 - Crystal Structure: Orthorhombic perovskite (GdTiO₃-type)
 - Theoretical Density: ~6.6 g/cm³
 - Fabrication Method: Cold isostatic pressing and high-temperature sintering, followed by precision surface finishing and indium bonding
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Chemical Composition (by XRF / ICP-OES)

Element	Symbol	Max. Content (ppm)
Gadolinium	Gd	Balance (>99.9%)
Titanium	Ti	Balance (stoichiometric)
Iron	Fe	<30
Silicon	Si	<30
Calcium	Ca	<20
Aluminum	Al	<20
Nickel	Ni	<20
Copper	Cu	<10
Sodium	Na	<10
Other trace elements (each) –		<10

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Element	Symbol	Max. Content (ppm)
Total Impurities	—	<100 ppm

Handling & Storage

- Store in vacuum-sealed packaging to prevent surface contamination.
- Handle with clean gloves to avoid fingerprint-induced oxidation.
- Avoid rapid temperature changes to prevent stress cracking of the bonded interface.
- Maintain storage under inert gas for long-term preservation.

Declaration

We certify that the above product has been manufactured and tested according to our quality control procedures and meets the specifications stated herein.

Authorized Signature:

Inspection Certificate by: Nancy LiuApprover by: Chen Qiang