Supporting Information

***J. Chem. Metrol.* 18:2 (2024) 173-184**

A novel short-wavelength near-infrared certified reference material from dysprosium and ytterbium oxides

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Shanghai Institute of Measurement and Testing Technology, Shanghai 201203

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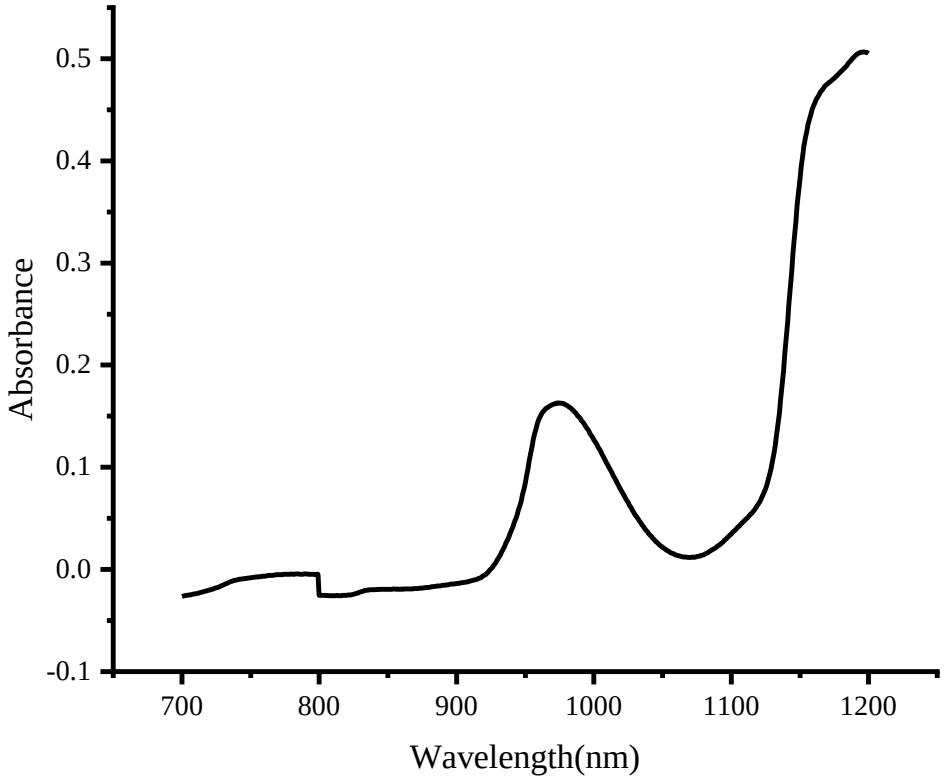


Figure S1: Short-wavelength near-infrared spectrum of cerium oxide

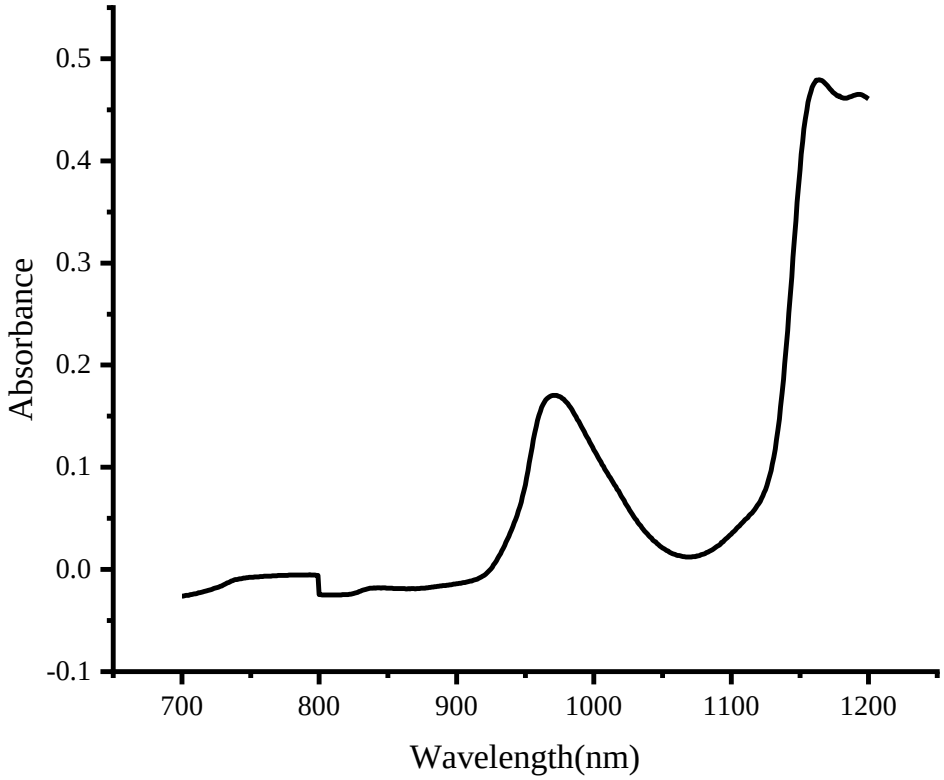


Figure S2: Short-wavelength near-infrared spectrum of praseodymium oxide

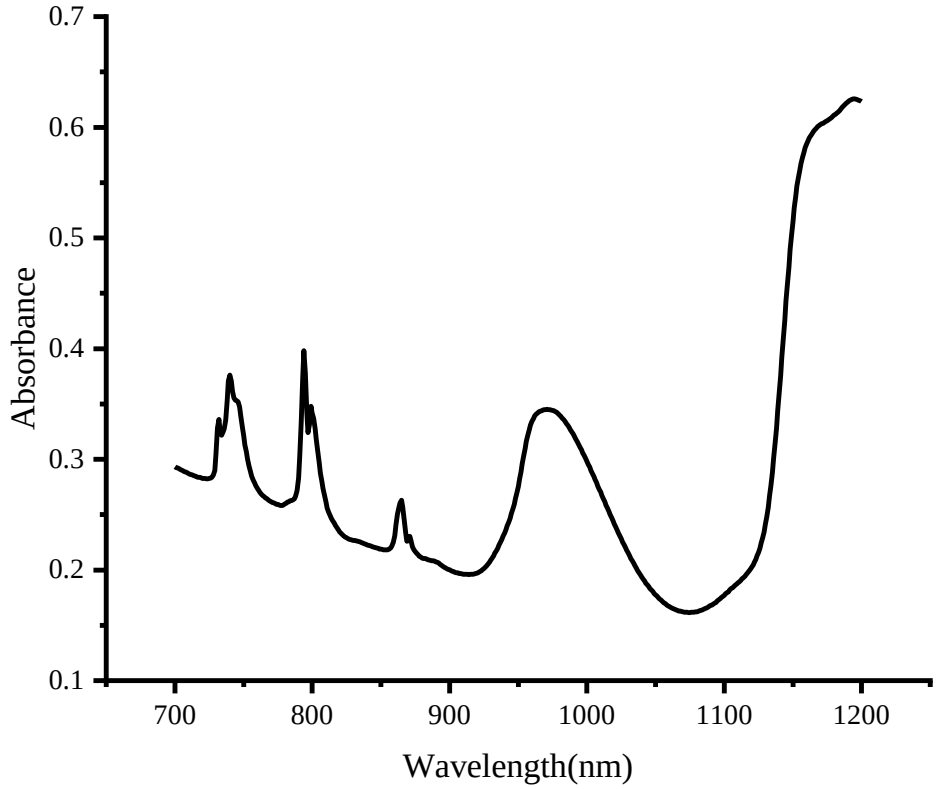


Figure S3: Short-wavelength near-infrared spectrum of neodymium oxide

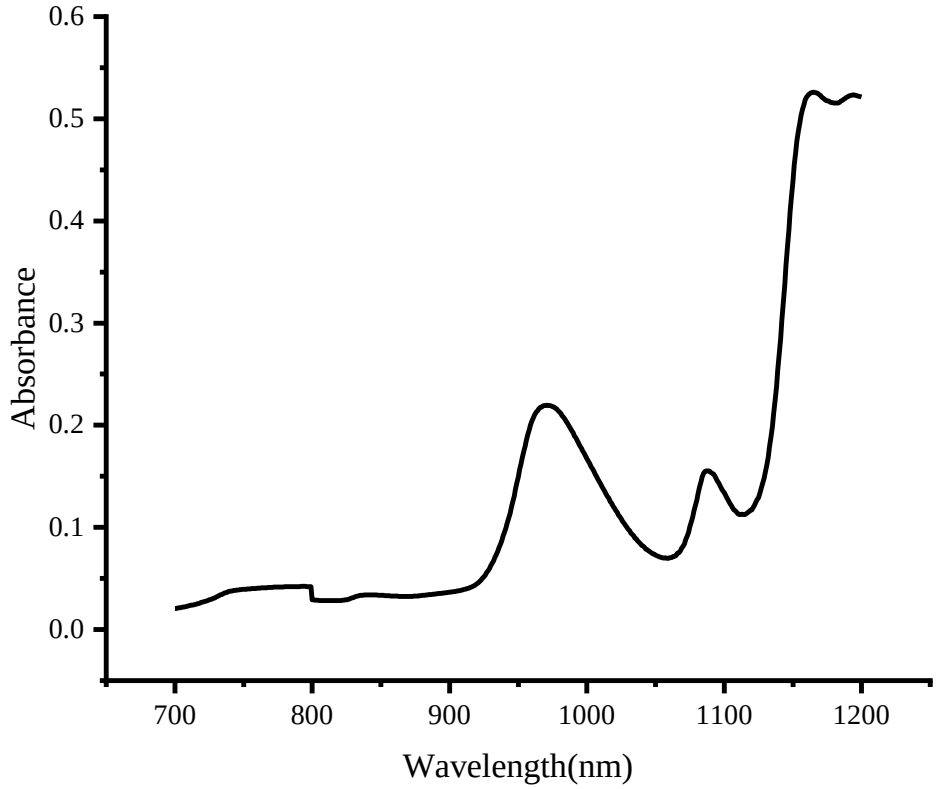


Figure S4: Short-wavelength near-infrared spectrum of samarium oxide

分析报告 | Certificate of Analysis

This product by inspection accords with the standard In-house

氧化镝(III)
Dysprosium(III) Oxide

Dy_2O_3

品牌Brand	Adamas
CAS	1308-87-8
分子式MF	Dy_2O_3
分子量MW	373
密度Density	7.810
商品编号T.No	01016643
原始编号REF	19786D
包装Package	25g
保存Storage	Store in a cool,dry area.
批号Batch No	P2512987
质量发布日期QRD	2023-02-26
建议复检日期RRD	2026-08-24
报告时间Report date	2023-02-27

检测项Test	标准值Specification	实测值Result
纯度	99.99%	合格

·Safety datasheet is available.For R&D and Manufacturing Use only.Not for drug,household or other uses.
·The contents of the Certificate of Analysis are subject to change without advance notice.The Certificate of Analysis values displayed here are the most up to date values.
There may be cases where the product labels display a different specification,however,the product quality still meets the latest specification.

Analysis conducted by:

Approved by:

上海泰坦科技股份有限公司 质检专用章 (1)

Figure S5: COA report of dysprosium oxides

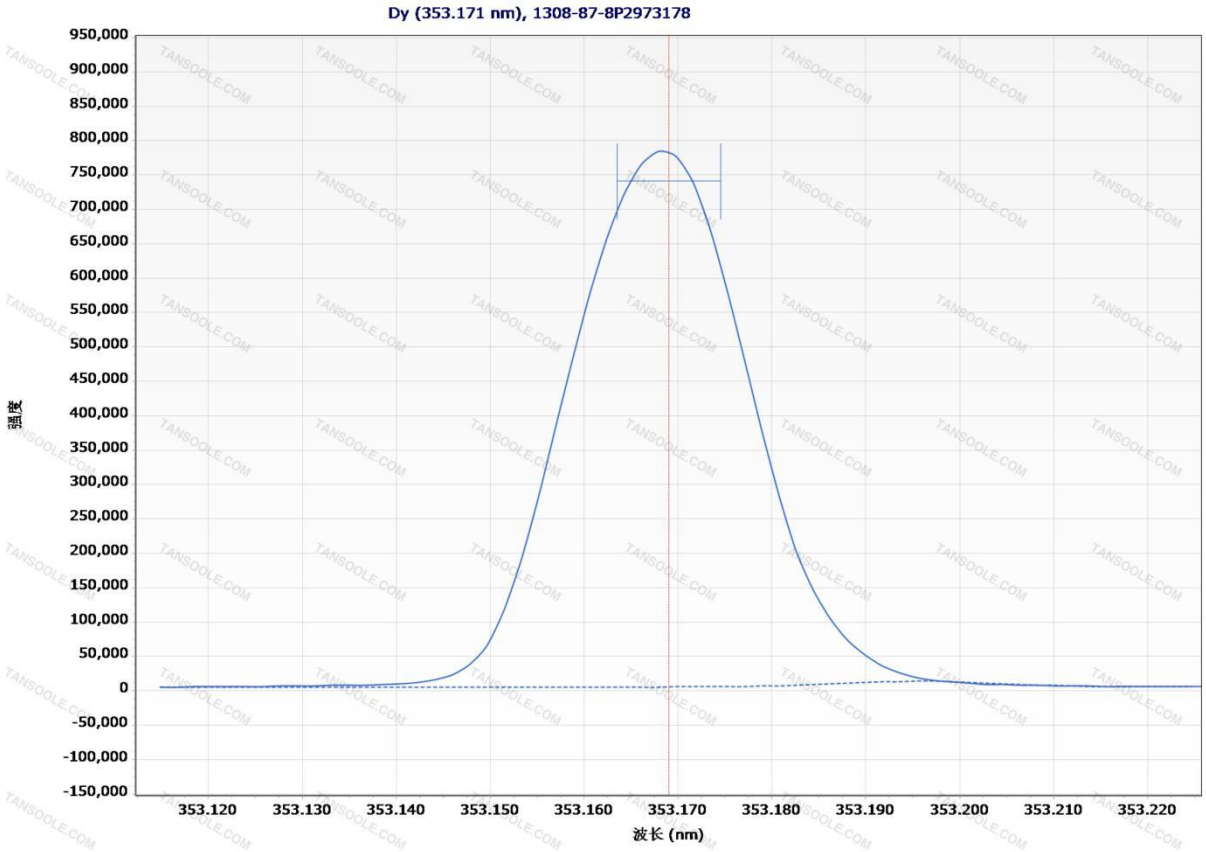
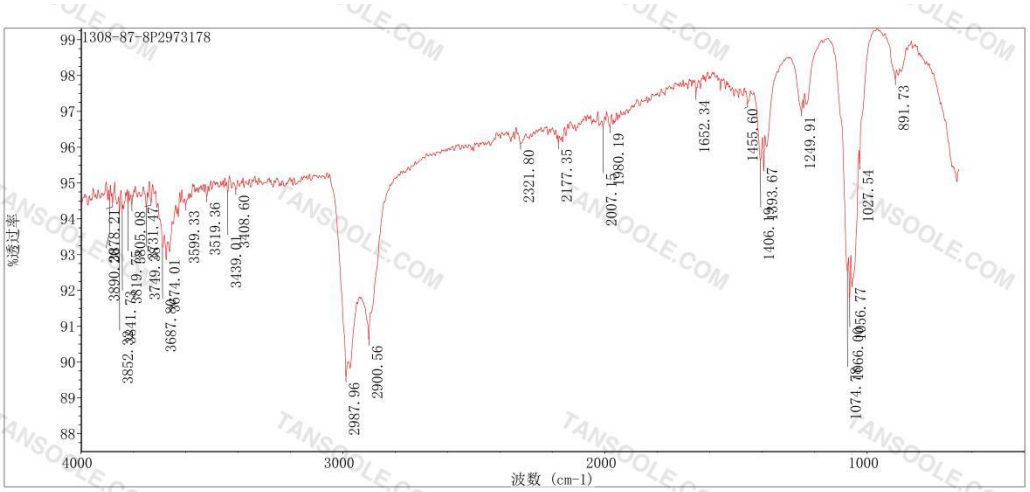


Figure S6: ICP test data from the reagent manufacturer of dysprosium oxides



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峰位置:	1249.91	强度:	96.997
峰位置:	1393.67	强度:	95.366
峰位置:	1406.19	强度:	95.616
峰位置:	1455.60	强度:	97.209
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峰位置:	1980.19	强度:	96.556
峰位置:	2007.15	强度:	96.586
峰位置:	2177.35	强度:	96.113
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峰位置:	2987.96	强度:	89.580
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Figure S7: FTIR test data from the reagent manufacturer of dysprosium oxides

damas-beta

分析报告 | Certificate of Analysis

This product by inspection accords with the standard In-house

氧化镱(Ⅲ)
Ytterbium(III) oxide

Yb_2O_3

品牌Brand	Adamas
CAS	1314-37-0
分子式MF	Yb_2O_3
分子量MW	394.08
密度Density	19.7
商品编号T.No	01017124
原始编号REF	20022B
包装Package	25g
保存Storage	Store in a cool,dry area.
批号Batch No	P2695374
质量发布日期QRD	2023-07-16
建议复检日期RRD	2027-07-15
报告时间Report date	2023-07-17

检测项Test	标准值Specification	实测值Result
纯度	99.99%	合格

·Safety datasheet is available.For R&D and Manufacturing Use only.Not for drug,household or other uses.
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Analysis conducted by:

Approved by:

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Figure S8: COA report of ytterbium oxides

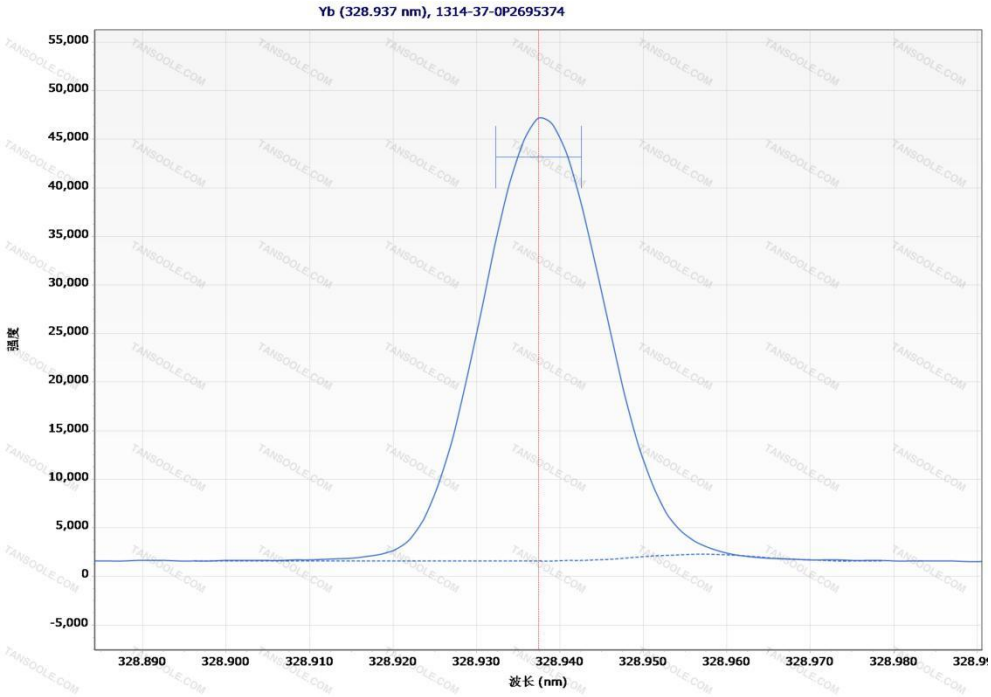
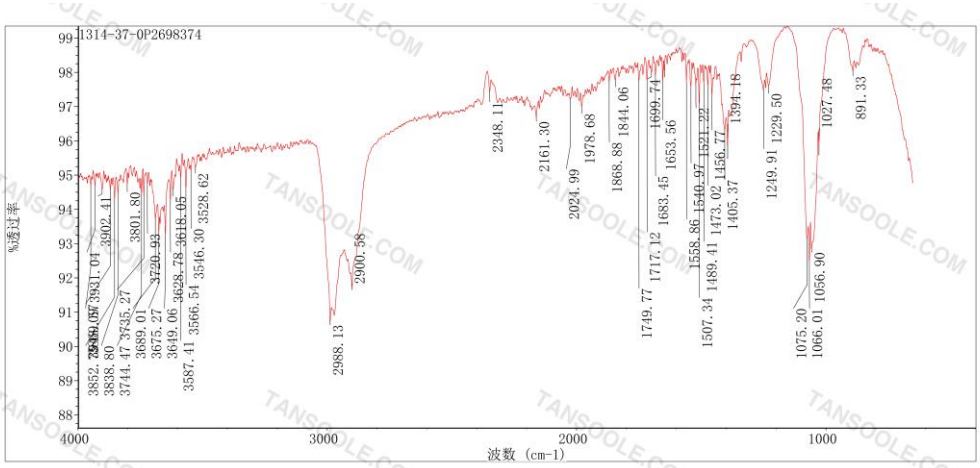


Figure S9: ICP test data from the reagent manufacturer of ytterbium oxides



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范围:	4000.00 400.00
（绝对）阈值:	98.897
灵敏度:	50

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Figure S10: FTIR test data from the reagent manufacturer of ytterbium oxides