



Value Beyond Measure

For Immediate Release

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Certified Reference Materials Releases for Q4 2024

Stevensville, Michigan, January 21, 2025 – Alpha Resources LLC, the largest manufacturer of aftermarket consumables and reference materials, is pleased to announce the following new product offerings and updates in certified reference materials which have been released in Q4 of 2024 from their lab.

New Lots available in Q4 2024 for Organic Reference Materials include:

- AR000 | Lot 241003 (Sulfur & BTU Paraffin Oil CRM)
- AR 211 | Lot 241002 (Glycine Reference Material)
- AR1681 | Lot 240924 (Sulfur in Coal Blank Reference Material)
- AR2041 Lot 241202 (0.049±0.003 %S in Crude Oil CRM)
- AR2047 | Lot 241010 | (0.98±0.05%S in Crude Oil CRM)
- AR4108 | Lot 240924 (30.17±0.31% LOI CRM)

New lots released of available Inorganic Certified Reference Materials in Q4 2024 include:

AR582 | Titanium Pin CRM | Lot # 240809

Element	Value	(+/-)	Method & Detection	n
%Hydrogen	0.0042	0.0012	Inert Gas Fusion/TC or IR	42
%Carbon	0.0054	0.0028	Combustion/IR	40

Note: (+/-) indicates expanded uncertainty.



AR592 | Steel Pin CRM | Lot # 240412

Element	Value	(+/-)	Method & Detection	n
%Hydrogen	0.0365	0.0042	Inert Gas Fusion/TC or IR	40
%Carbon	0.0094	0.0033	Combustion/IR	40

Note: (+/-) indicates expanded uncertainty.

AR635 | Titanium Pin CRM | Lot# 240110

Element	Value	(+/-)	Method & Detection	n
%Oxygen	0.142	0.014	Inert Gas Fusion/IR	49
%Nitrogen	0.015	0.0047	Inert Gas Fusion/IR	48
%Hydrogen	0.0036	0.0011	Inert Gas Fusion/IR	49

Note: (+/-) indicates expanded uncertainty.

AR641 | Titanium Pin CRM | Lot # 240414

Table 1. Certified values for A641, Lot 240414

Element	Value	Method & Detection	n
%Oxygen	0.178	Inert Gas Fusion/IR	60
%Nitrogen	0.0278	Inert Gas Fusion/IR	60

Note: (+/-) indicates expanded uncertainty.

Table 2. Reference values for AR641, Lot 240414

Element	Reference Value	Method & Detection	n
%Hydrogen	0.0004	Inert Gas Fusion/IR	60



AR660 | Steel Pin CRM | Lot # 240619

Element	Value	(+/-)	Method & Detection	n
%Oxygen	0.0030	0.0006	Inert Gas Fusion/IR	48
%Nitrogen	0.0075	0.0009	Inert Gas Fusion/TC	46

Note: (+/-) indicates expanded uncertainty.

AR881 | Steel Pin CRM | Lot # 240416

Element	Value	(+/-)	Method & Detection	n
%Carbon	0.0084	0.0018	Combustion/IR	39
%Sulfur	0.0014	0.0007	Combustion/IR	39

Note: (+/-) indicates expanded uncertainty.

AR873 | Steel Ring CRM | Lot # 240715

Element	Value	(+/-)	Method & Detection	n
%Carbon	0.461	0.016	Combustion/IR	48
%Sulfur	0.0127	0.0022	Combustion/IR	48

Note: (+/-) indicates expanded uncertainty.

AR895 | Steel Pin CRM | Lot # 240610

Element	Value	(+/-)	Method & Detection	n
%Carbon	0.276	0.005	Combustion/IR	40
%Sulfur	0.0227	0.0019	Combustion/IR	40

Note: (+/-) indicates expanded uncertainty.



AR2026 | Titanium Pin CRM | Lot# 240726

Element	Value	(+/-)	Method & Detection	n
%Carbon	46.2	1.9	Combustion/IR	30
%Nitrogen	2.14	0.21	Combustion/TC	30
%Sulfur	0.18	0.08	Combustion/IR or IC	30

Note: (+/-) indicates expanded uncertainty.

AR4005 | Synthetic Ore CRM | Lot # 240726

Element	Value	(+/-)	Method & Detection	n
%Carbon	1.62	0.08	Combustion/IR	32
%Sulfur	1.56	0.10	Combustion/IR	32

In addition, in Q4 2024, Alpha also released a new lot of the following reference material

AR298 | Sulfamethazine Reference Material | Lot # 241111

Element	Value
%Carbon	51.8
%Hydrogen	5.1
%Nitrogen	20.1
%Oxygen	11.5
%Sulfur	11.5

A complete list of Alpha Resources certified reference materials maybe found online at: <https://www.alpharesources.com/current-list-of-standards.php>



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About Alpha Resources

Founded in 1978, Alpha Resources, LLC is a global leader in the manufacture and distribution of consumables and certified reference materials for use in atomic spectroscopy analysis. Alpha Resources is ISO17034, ISO17025, ISO9001:2015 certified.