

U. S. DEPARTMENT OF COMMERCE

National Bureau of Standards

Certificate of Analyses

OF

STANDARD SAMPLE 85

ALUMINUM ALLOY
(DURALUMIN)

ANALYST*	COPPER <i>Electrolytic</i>	MANGANESE <i>Gravimetric</i>	MANGANESE <i>Volumetric</i>	SILICON <i>Solution in NaOH</i>	MAGNESIUM <i>NaOH-MgF₂O₇</i>	IRON	TITANIUM <i>Colorimetric</i>	LEAD <i>Electrolytic</i>	TIN	ZINC	GALLIUM	ZIRCONIUM	VANADIUM
1.....	4. 11		^a 0. 56	0. 46	0. 39	^b 0. 39	0. 020	0. 007	0. 004	0. 013	0. 010	0. 004	0. 001
2.....	^c 4. 11	0. 56	^a . 56	^d . 46	. 41	^e . 39							
	4. 11	. 57		^d . 46	. 39	^f . 40	. 02	. 006	< . 01	. 014			
	4. 12		^g . 56	. 47	. 42	^f . 40	. 027	. 006	Trace	Trace			
5.....	4. 11	. 57	^h . 55	. 46	. 40	^b . 40	. 023	ⁱ . 008		. 016			
6.....	4. 12		^h . 57	. 46	. 40	^j . 41							
7.....	4. 11		^h . 56	. 45	. 41	^k . 41							
Averages....	4. 11	0. 57	0. 56	0. 46	0. 40	0. 40	0. 022	0. 007		0. 014	0. 010	0. 004	0. 001
Recommended values.....	4. 11	0. 56		0. 46	0. 40	0. 39	0. 021	0. 007	0. 004	0. 014	0. 010	0. 004	0. 001

^a Bismuthate, FeSO₄-KMnO₄.

^b Reduced in a Jones reductor and titrated with KMnO₄.

^c Iodide-thiosulfate method.

^d Solution in Mixed acids.

^e Reduced with SnCl₂ and titrated with K₂Cr₂O₇.

^f Reduced with H₂S and titrated with KMnO₄.

^g Bismuthate-arsenite.

^h Persulfate-arsenite.

ⁱ Same value obtained colorimetrically as lead sulfide.

^j Reduced with SnCl₂ and titrated with KMnO₄.

^k Reduced with H₂S and titrated with Ce(SO₄)₂.

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