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THE INSTITUTE FOR CERTIFIED REFERENCE MATERIALS
ICRM

CERTIFICATE OF ANALYSIS

CERTIFIED REFERENCE MATERIAL
No. F41

FERRONICKEL

CERTIFIED VALUES AND UNCERTAINTIES (95% confidence level), %:

Nickel	91.4	± 0.1
Carbon	0.0124	± 0.0005
Sulphur	0.132	± 0.002
Iron	5.68	± 0.03
Copper	0.47	± 0.01
Cobalt	2.04	± 0.03
Arsenic	0.058	± 0.001

ADDITIONAL DATA: Minimum weight of sample for analysis is 0.1 g.
Analytical methods used are given in Supplement.

Valeriy Stepanovskikh
Director, ICRM

CERTIFIED REFERENCE MATERIAL
No. F41
FERRONICKEL
(continuation)

SUPPLEMENT

ANALYTICAL METHODS USED

NICKEL	Complexometric titrimetric method. Gravimetry, as nickel dimethylglyoximate. Electric gravimetric method. ICP-AES.
CARBON	Coulometry. Infra-red absorption spectrometry.
SULPHUR	Coulometry. Infra-red absorption spectrometry. Titrimetry jodometry.
IRON	Dichromate titrimetric method, complexometric. Photometry, with O-phenanthroline, or sulphosalicylic acid. AAS. ICP-AES.
COPPER	Photometry, with sodium diethyldithiocarbamate, as ammoniac complex, with cuprizon. Extraction-photometry with sodium diethyldithiocarbamate. AAS. ICP-AES.
COBALT	Photometry, with nitrozo R-salt. Potentiometry titration. AAS. ICP-AES.
ARSENIC	Photometry, as blue As-Mo complex, reduction by hydrazine sulphate, or ascorbic acid. AAS. ICP-AES.