

Certificate of Certified Reference Material

NCS HC 93612--93613

Si-Ca Alloy

Issued in 2012

Approved by China National Analysis Center for Iron and Steel

(Beijing China)

This Certified Reference Materials is prepared in accordance with the ISO guides 30-35. The intended use for this CRM is for the quality control in Si-Ca alloy analysis, the evaluating methods of analysis and the calibration of analytical instruments.

### Certified Values and Standard deviation (%)

No		C	S	Si	P	Ca	Fe	Al
NCS HC 93612	Certified Value	2.44	0.132	55.31	0.019	28.25	6.08	1.88
	Standard deviation	0.08	0.005	0.14	0.002	0.12	0.08	0.05
NCS HC 93613	Certified Value	1.30	0.088	56.20	0.018	31.67	5.58	1.77
	Standard deviation	0.04	0.004	0.16	0.001	0.10	0.06	0.04

Note:

1. Each certified value is the mean of analytical results of 6 independent laboratories
2. The sample is powder with size less 0.098mm packed in glass bottle.  
The minimum package is 100 grams.
3. The sample should be stored at dry place.
4. The valid time of the sample is 10 years, although we reserve the right to make change as issue revisions

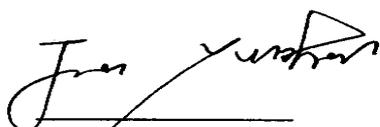
### Analytical Methods

Element	Methods
C	Infrared absorption method; The gasometric method
S	Infrared absorption method
Si	Gravimetric method
P	ICP-AES method; Bismuth-phosphomolybdate blue photometric method
Al	EDTA titrimetric method; ICP-AES method
Ca	EDTA titrimetric method
Fe	Potassium dichromate titrimetric method

### Statement:

This material is used only in labs and for analysis work, producer will be not responsible for any problem caused by misuse or not properly store.

Please check carefully the package, quantity and type of the material after receiving it. Related compensation is only limited in the certified materials, any other losses will be not included.



**Jia Yunhai**

**Laboratory Director**