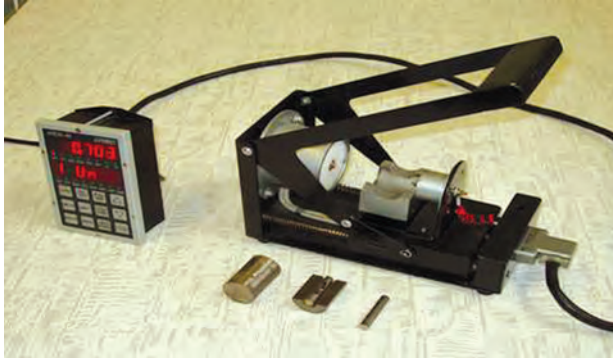


## DEVICES FOR RAPID ANALYSIS OF ALLOY COMPOSITION AND STRUCTURE



STEACI device for rapid thermoelectric analysis of cast iron



STGEACI device for rapid thermographic analysis of cast iron



STECS-CI device for rapid thermodynamic control of graphite form in cast iron

### Advantages

The devices have higher metrological characteristic due to the use of hot bimetallic electrodes, statistical processing of primary measurement data, and sampling technique; the use of painted metallic cups; the use of dependence of thermal conductivity (instead of ultrasound speed) on cast iron structure

### IPR Protection

IPR3

### Areas of Application

Rapid thermoelectric, thermographic and thermodynamic analysis of C, Si, Mn content and carbon equivalent in cast irons and steels; C and Si content in cast irons and steels; Si, Fe, Mg, Ni, Cu, Mn, Zn, Ti content in aluminum alloys; graphite form in cast irons

### Specification

Fundamental absolute error of content measurement, %	≤0.1
Statistical confidence of graphite form measurement	≥0.95
Time of analysis, min	≤2

### Stage of Development.

#### Suggestions for Commercialization

IRL8, TRL8  
Manufacture, delivery, warranty service, and staff training, upon request

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