

KES

Determination of Iron in
Zinc Alloy Die Casting

KES T – M165

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1. Scope of Application

This standard shall specify atomic absorption analysis method.

The specimen that has an amount of iron from 0.001% to 0.01% is admitted.

2. Summary

The specimen dissolves in hydrochloric acid. Measure a standard solution of the measuring line and an extinction degree of the specimen in the neighborhood of wavelength 248.3nm by atomic absorption spectrophotometer, and find a density of iron from the prepared measuring line.

3. Test Equipment

3.1 Atomic absorption spectrophotometer (AA-860)

3.2 Optimum condition of atomic absorption spectrophotometer

3.2.1 Wavelength : 248.3nm

3.2.2 Lamp current : 15mA

3.2.3 Fuel (C_2H_2) : 0.5kg/cm² (1st) 1.5 ℓ /min (2nd)

OXIDANT (Air) : 5kg/cm² (1st) 6.5 ℓ /min (2nd)

3.2.4 Angle of a burner and a position

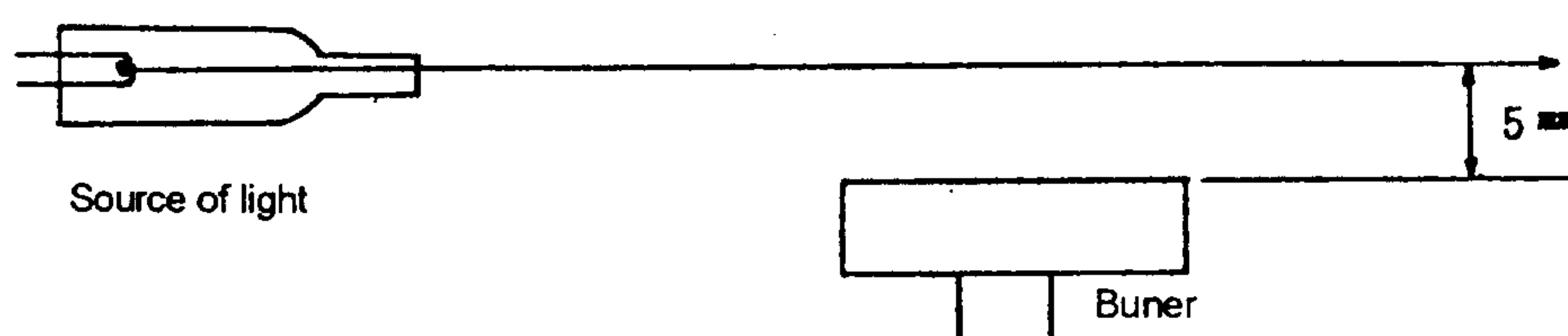


Figure 1

4. Reagent

4.1 Hydrochloric acid (1 : 1)

4.2 Hydrochloric acid (1 : 9)

4.3 Oxygenated water (30%)