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Adornment - Determination of Baneful Elements - X-ray Fluorescence Spectrometric Method

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Adornment - Determination of Baneful Elements - X-ray Fluorescence Spectrometric Method

1 Scope

This standard specifies the X-ray fluorescence spectrometric detection method of baneful elements in adornment.

This standard applies to the detection of baneful elements in the surface layer of the adornment made in various materials (except jewelry and jade).

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this standard.

GB 28480 Adornment - Provision for Limit of Baneful Elements

GB/T 28019 Adornment - Determination of Chromium (VI) – 1,5-Diphenylcarbohydrazide spectrophotometric method

GB/T 28021 Adornment - Determination of baneful elements - Method of spectrometry

3 Principle and Method

Principle of this method is as follows: surface layer of adornment can be excited by X-ray; it can emit characteristic X-ray. Energy of characteristic X-ray corresponds to each specific element. Content of the elements in adornment can directly determine the intensity of spectral line. By measuring the energy or wavelength of the X-ray, it can perform the qualitative analysis; By measuring the intensity of the spectral line, it can perform the quantitative analysis.

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