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Imaging materials - Methods for characterization of particles

影像材料 颗粒物表征方法

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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Characterization Methods of Particles in Imaging Materials

1 Scope

This paper describes the use of optical microscopy (OM), scanning electron microscopy (SEM) and transmission electron microscopy (TEM) to characterize the silver halide colloids.

Method for characterizing the shape and size of silver halide particles in films and silver behenate particles in direct digital thermal silver salt dry films.

This document applies to the characterization of silver halide particles in silver halide films and silver behenate particles in direct digital thermal silver halide dry films.

2 Normative references

GB/T 6682

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Agglomeration

Two or more particles held together by relatively weak adhesive forces (caused by weak chemical bonds or electrostatic surface charges generated by processing or handling) A collection of multiple particles.

3.2 particle

The smallest discrete unit that can be determined in a test method.

NOTE. Nanoparticles are particles with at least one dimension smaller than 100 nm.

3.3 rectangularparticle

Particles that are close to square or rectangular in shape.

3.4 spherical particles

Round particles.

3.5 Feretdiameter Feretdiameter

The distance between two parallel lines of the particle projection outline measured along a certain direction.

3.6 particle length

The maximum length of a particle along a certain direction in the projected image.

3.7 Particlebreadth

The maximum width of a particle along a certain direction in the projected image.

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