

理论研究

## 单分散系微粒的Mie散射计算

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**摘要** Mie散射是公认的一种极具发展前途的微粒测试技术, 应用于工厂、企业排放烟尘中微粒粒度和浓度的测试, 具有非接触、精度高、重复性好和可实时在线测量的优点, 是研究检测污染排放的主要技术手段, 也是微粒粒度和浓度分析的理论基础. 本文对Mie散射理论的多个参量进行计算并给出其数学表达式.

**关键词** [Mie散射](#) [微粒](#) [单分散系](#)

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## The Mie Scattering Calculation for Single-Decentralization of Particles

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**Abstract** Mie scattering is a generally recognized technique with brilliant prospects in particle measurement, which applies to the measurement of particle size and concentration of flue-dust emitted from factories or enterprises. It has many advantages, e. g. non-contact, high-precision, real-time on-line measurement etc. It is a main technical means for research on pollutant emission. It is also a theoretical base to analyze the particle size and concentration. In this paper, several parameters of Mie scattering are calculated and its mathematical expressions are presented in detail.

**Key words** [Mie scattering](#) [particles](#) [single-decentralization](#)

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