



BLACK IRON OXIDE (MAGNETITE)

Summary

Magnetite (also known as lodestone) is a naturally occurring magnetic mineral. Magnetite is used in various applications from speaker production and high speed disk drives to a color additive in cement.

Analytical test method

RI (particle): 2.42-0.10i

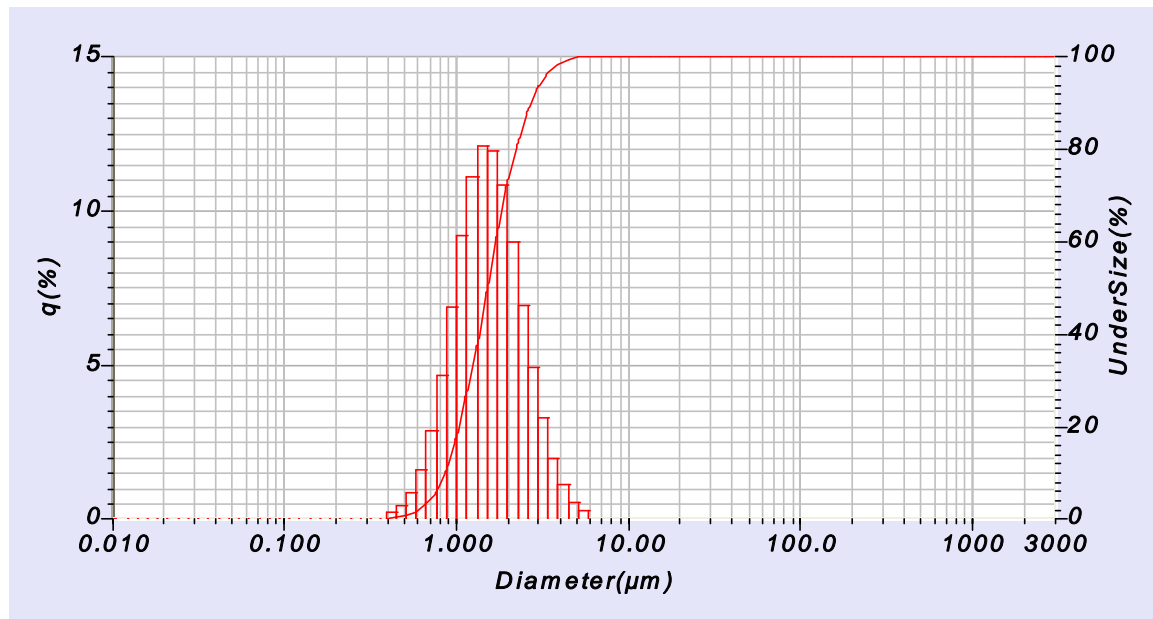
Dispersant fluid: Water with 0.1% sodium pyrophosphate

Sonication: on during measurement

Circulation speed: 3

Agitation speed: 3, continuous

Notes: To keep the magnetic particles separated as much as possible, the sonication should be kept on during the entire measurement cycle to prevent reagglomeration.



Example data

Median: 1.52 μm

Mean: 1.69 μm

D(10%): 0.80 μm

D(90%): 2.61 μm

Discussion: The active display of particle size results allows the user to see the rapid re-agglomeration of these magnetic particles. The internal, adjustable-power ultrasonic system may be sufficient to disperse the agglomerates and then used at a power setting sufficient to prevent reagglomeration. Due to the high specific gravity (5.1), larger particle sizes will need higher pump speeds to maintain the particles in suspension.

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