

Sphalerite (Zinc Blende) - ZnS

Hardness: 3.5 - 4. Cleavage: Perfect. Brittle. Insoluble in water. HCl can cause bright crystal faces to become dull. Some authors report that sphalerite is readily attacked by any acid (often with release of toxic H₂S, which has a characteristic rotten egg smell). Use dilute HCl, acetic acid or citric acid for calcite removal but minimize exposure time. Attacked by HNO₃. Tolerates any dithionite recipe. Luster and mass preserved when treated with EDTA. Can be derusted with 3% oxalic acid. Stable to NH₄HF₂ which brightens some samples.

Varieties/related species (treat same as sphalerite): Marmatite.

References

Mindat: <https://www.mindat.org/min-3727.html>

Handbook of Mineralogy: <https://www.handbookofmineralogy.org/pdfs/sphalerite.pdf>

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