



>>Entry Name: Lanthanum sulfides

Molecular Formula: [LaS]

>>Variant: Lanthanum sulfide (LaS)

CAS Registry Number: 12031-30-0

Molecular Formula: LaS

Molecular Weight: 170.972

Accurate Mass: 170.878417

Percentage Composition: La 81.24%; S 18.76%

Physical Description: Metallic gold solid

Other Data: Superconductor; T_c 0.84K. Weakly paramagnetic; oxidises > 500°

>>Variant: Lanthanum sulfide (La₂S₃)

Synonym(s): Dilanthanum trisulfide

CAS Registry Number: 12031-49-1

Molecular Formula: La₂S₃

Molecular Weight: 374.009

Accurate Mass: 373.728904

Percentage Composition: La 74.28%; S 25.72%

Physical Description: Red (α -form), green (β -form) or yellow (γ -form) solid

Other Data: Stoichiometry of γ -form is LaS_{1.482}; of β -form LaS_{1.43} (prob. oxysulfide)

>>Variant: Lanthanum sulfide (La₃S₄)

CAS Registry Number: 12162-74-2

Molecular Formula: La₃S₄

Molecular Weight: 544.981

Accurate Mass: 544.607321

Percentage Composition: La 76.46%; S 23.54%

Use/Importance: *n*-Type semiconductor. Superconductor < 8.05K

References:

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