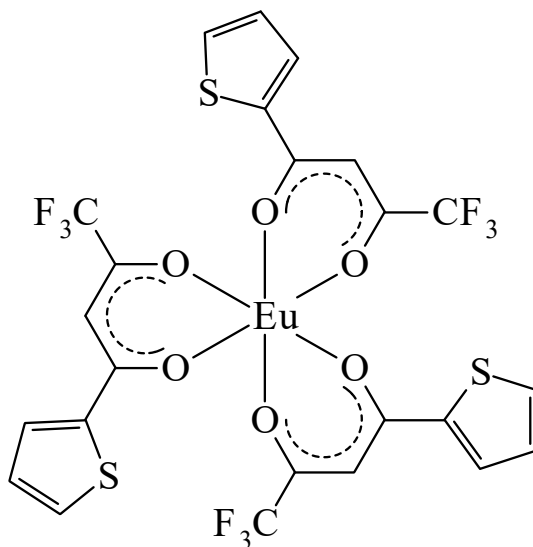




>>Entry Name: Tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-*O,O'*]europium(III), 9Cl

Synonym(s): Europium(III) thenoyltrifluoroacetate



CAS Registry Number: 14054-87-6

Related CAS Registry Numbers(s): 21392-96-1

Molecular Formula: C₂₄H₁₂EuF₉O₆S₃

Molecular Weight: 815.504

Accurate Mass: 815.886452

Percentage Composition: C 35.35%; H 1.48%; Eu 18.63%; F 20.97%; O 11.77%; S 11.80%

Use/Importance: Laser dye; used in video applications

Physical Description: Pink solid

Melting Point: Mp 180° (118-120°)

Solubility: Sol. C₆H₆, MeOH

Other: Gelest AKE297

>>Derivative: Dihydrate

CAS Registry Number: 15133-61-6

Molecular Formula: C₂₄H₁₆EuF₉O₈S₃

Molecular Weight: 851.534

Percentage Composition: C 33.85%; H 1.89%; Eu 17.85%; F 20.08%; O 15.03%; S 11.30%

Physical Description: Colourless cryst.

Solubility: Sol. MeOH, EtOH

Other Data: Square antiprismatic Eu. Loses H₂O at 110°. $\mu_{\text{eff}} = 3.26\mu_{\text{B}}$ (298K)

>>Derivative: Phen complex

Molecular Formula: C₃₆H₂₀EuF₉N₂O₆S₃

Molecular Weight: 995.712

Accurate Mass: 995.9552

Percentage Composition: C 43.43%; H 2.02%; Eu 15.26%; F 17.17%; N 2.81%; O 9.64%; S 9.66%

Physical Description: Cryst.

Melting Point: Mp 242-244° (247-249°). Mp 236-238° (214°)

Solubility: Sol. MeCN, EtOH, EtOAc, C₆H₆

Other Data: $\mu_{\text{eff}} = 3.49\mu_{\text{B}}$

>>Derivative: 2,2':6,2"-Terpyridine complex

Molecular Formula: C₃₉H₂₃EuF₉N₃O₆S₃

Molecular Weight: 1048.776

Accurate Mass: 1048.981749

Percentage Composition: C 44.66%; H 2.21%; Eu 14.49%; F 16.30%; N 4.01%; O 9.15%; S 9.17%

Physical Description: Cryst.

Melting Point: Mp 247-251°

Solubility: Sol. EtOH