



>>Entry Name: Zirconium silicides

CAS Registry Number: 37189-51-8

Molecular Formula: [SiZr]

>>Variant: Zirconium silicide (Zr₃Si), 8Cl

Molecular Formula: SiZr₃

Molecular Weight: 301.757

Accurate Mass: 297.691036

Percentage Composition: Si 9.31%; Zr 90.69%

Source/Synthesis: Synth. by heating the elements to 1500°

>>Variant: Zirconium silicide (Zr₅Si₄), 10Cl

CAS Registry Number: 12218-92-7

Molecular Formula: Si₄Zr₅

Molecular Weight: 568.462

Accurate Mass: 561.431223

Percentage Composition: Si 19.76%; Zr 80.24%

Source/Synthesis: Synth. by heating the elements at 1800° for 1 h then at 900° for 2 h

>>Variant: Zirconium silicide (ZrSi), 11Cl

CAS Registry Number: 12138-26-0

Molecular Formula: SiZr

Molecular Weight: 119.309

Accurate Mass: 117.88163

Percentage Composition: Si 23.54%; Zr 76.46%

Source/Synthesis: Synth. from Zr and Si or SiO₂ in a plasma furnace or by heating ZrO₂ and Si to 1600°

>>Variant: Zirconium silicide (ZrSi₂), 11Cl

CAS Registry Number: 12039-90-6

Molecular Formula: Si₂Zr

Molecular Weight: 147.395

Accurate Mass: 145.858557

Percentage Composition: Si 38.11%; Zr 61.89%

Source/Synthesis: Synth. by laser-melting the elements or from Zr and Si or SiO₂ in a plasma furnace

Use/Importance: Used in resistors and other electrical devices

Aldrich: 39942-6

References:

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