



>>Derivative: Ca, Mg salt

Synonym(s): Swartzite

CAS Registry Number: 12202-86-7

Molecular Formula: $C_3CaMgO_{11}U$

Molecular Weight: 514.438

Accurate Mass: 513.942482

Percentage Composition: C 7.00%; Ca 7.79%; Mg 4.72%; O 34.21%; U 46.27%

Source/Synthesis: Occurs as secondary mineral at sites in USA

Physical Description: Bright green cryst. + 12H₂O. Dull yellowish white (anhydrous)

>>Derivative: Tetra-NH₄ salt

Synonym(s): AUC

CAS Registry Number: 18077-77-5

Molecular Formula: $C_3H_{16}N_4O_{11}U$

Molecular Weight: 522.208

Accurate Mass: 522.132345

Percentage Composition: C 6.90%; H 3.09%; N 10.73%; O 33.70%; U 45.58%

Use/Importance: Important in prep. of homogenous (U, Pu)O₂ fuels, and in conversion of UF₆ + U₂(NO₃)₂ to UO₂

Physical Description: Lemon-yellow or green-yellow monoclinic cryst.

Other Data: On heating forms U₃O₈, NH₃, CO₂. Dec. >150°

References:

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