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John E. Ellis*: Adventures with Substances Containing Metals in Negative Oxidation States

Page 3168. In the section on Monatomic Metal Anions, Mg_2Sn ,¹ Mg_2Pb ,¹ and Mg_3Bi_2 ² merited inclusion because they formally contain atomic Sn^{4-} , Pb^{4-} , and Bi^{3-} , respectively. These compounds are often described as “Zintl phases” and have properties that are intermediate between those of metal alloys and ionic compounds.³ Presumably more ionic, Li_4Sn ,⁴ Ca_2Sn ,⁵ Ca_2Pb ,⁵ and Na_3Bi ⁶ have also been isolated, but all of these substances are likely to be less salt-like than Cs^+Au^- and the other examples shown under 2(a) in Table 1.

Also, in the discussion of alkali-metal anions, seminal contributions by Peter Edwards to our understanding of these species in solution, particularly in liquid crown ethers,⁷ should have been cited.

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