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**Discovery of promising, topological semimetal material SmMnBi2**
TIGLET BESARA, SUDHA KRISHNAN, Missouri State University — Following the discovery of topological Weyl semimetals in non-magnetic materials, ferromagnetic Weyl semimetals have now been discovered with materials such as YbMnBi2, Co2MnGa, and Co3Sn2S2. With their different structures, this suggests that more ternary intermetallic compounds can be found displaying the connection between ferromagnetism and topology. We report on a growth and search for other isostructural ternary intermetallics, utilizing self-flux methods to grow single crystals, resulting in the promising candidate SmMnBi2.

Tiglet Besara
Missouri State University

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