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First-principles calculation of novel group-IV nanostructures¹ ED SANDBERG, LOK LEW YAN VOON, Wright State Univ Physics, RACHEL AGA, Wright State Univ Chemistry, AMIR FARAJIAN, Wright State Univ MME, COMPUTATIONAL MATERIALS CLUSTER TEAM — The structure, stability and electronic properties of nanosheets of group-IV elements were studied using density-functional theory. The nature of bonding with hydrogen was investigated by analyzing the electron density distribution and by calculating the binding energy.

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