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Growth of Iridium on Ge(111) Studied by STM¹ MARSHALL VAN ZIJLL, CORY MULLET, BRET STENGER, EMILIE HUFFMAN, DYLAN LOVINGER, WILLIAM MANN, SHIRLEY CHIANG, UC Davis — We have used scanning tunneling microscopy (STM) to characterize the growth of iridium onto Ge(111) as a function of coverage and annealing temperature. Ir was deposited onto the Ge(111) c(2x8) surface at different coverages less than 1ML, and then annealed to temperatures between 600K and 700K. The Ir forms islands which generally increase in size with increasing annealing temperature. In addition to island formation, other unique characteristics were observed, including the formation of Ir pathways connecting the islands. High resolution images have been obtained, which allow direct observation of the different phases.

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