Abstract Submitted
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Unusual Island Formations of Iridium on Ge(111) Studied by STM[1] 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). Iridium was deposited onto the Ge(111) c(2x8) surface at different coverages less than 1ML, and the samples were annealed to temperatures between 550K and 750K. A new form of growth was observed, consisting of pathways connecting larger iridium islands. As the annealing temperature increased, the iridium growth first formed unusual shapes with finger-like protrusions. Next, these shapes broke apart into smaller islands, which ultimately formed into larger islands at higher temperatures. High resolution images have been obtained, which allow insight into the atomic arrangements.

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