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Controlling Degree of Crystalline Boron Carbide by Plasma Enhanced Chemical Vapor Deposition¹ JOSEPH SANDSTROM, CNSE, AN-THONY CARUSO TEAM, BRIDGER ANDERSON TEAM, MARSHAL BREMER TEAM, DOUGLAS SCHULZ TEAM — There has been a recent resurgence in the interest of semiconducting boron carbide, based on its use as a radiation hard semiconductor. Here, we present growth character and commensurate structural and electronic properties from the low temperature but large area (6" wafer) deposition of boron carbide from the solid source precursor, 1,2 - dicarbadodecaborane. Of special interest is the control over the degree of crystallinity as provided from changing plasma pressure growth.

 $^{1}\mathrm{DARPA}$

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