

"Effect of Boron Content on the Mechanical and Physical Properties of Boron Pyrolytic Graphite Cylinders"* (25 min.) W. V. Kotlensky, A. J. Capriulo, R. N. Donadio, L. M. Hagen, and J. Pappis

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Boron pyrolytic graphite cylinders 3 inches in diameter by 9 inches in length containing a level of boron from 0.1 to 2% were deposited at 2000°C using methane as the carbon source gas and boron trichloride and trimethyl borate as the boron source. Characterization and evaluation of the cylinders were made by measurements of thickness profile, boron content, density, thermal expansion, tangential residual stress, Young's modulus, Poisson's ratio, and ring crushing strength. These data are compared to boron pyrolytic graphite flat plate stock, unalloyed pyrolytic graphite cylinders, and graded boron pyrolytic graphite cylinders.

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