

## **Development of Copper Doped GDP Coatings\***

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Copper doped polymer shells can provide a very useful diagnostic for fast ignition experiments currently being performed at various laboratories around the world. The low concentration copper dopant acts as an efficient x-ray source providing information on the physics of fast ignition. We have developed copper doped glow discharge (GDP) coatings suitable for such purposes. Copper acetylacetonate (CuAcAC), a solid at room temperature, was used in a heated jacket as the dopant source. We used this technique to fabricate thin ( $\sim 5\text{--}7\ \mu\text{m}$ ) GDP shells doped with  $\sim 1$  at % copper through the depolymerizable mandrel process for fast ignition experiments. The details of the experimental set up and the range and limitations of the technique are discussed.

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