

## **Silica and Metal Oxide Aerogel Development at General Atomics<sup>□</sup>**

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A variety of silica, metal oxide, and metal doped aerogels are being developed at General Atomics for use as possible as laser target materials. Silica aerogels have been produced with controlled densities as low as 20<sup>□</sup>g/cc, and have been produced as bulk molds, small beads and hollow shells using microencapsulation. Metal oxide aerogels such as tantalum oxide (Ta<sub>2</sub>O<sub>5</sub>) and tin oxide (SnO<sub>2</sub>) are two other low density materials that have been fabricated. Aerogels with embedded metal nanoparticles are also of interest and several methods for producing these composite aerogels are being explored. Each method limits excessive aggregation of the metal so that the end product has a uniform loading of nanometer size metal particles.

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