size range (20 to 100 µm) suitable for plasma spraying and a much larger proportion of undesired finer particles. Water atomization yields particles that are less spherical in character but still more rounded than those produced by crushing, and yields a greater proportion of usable particles.

As one might expect from the intermediate nature of the shapes of water-atomized BaF₂-CaF₂ particle shapes, the flow properties of PS304 powders containing water-atomized BaF₂-CaF₂ are intermediate to those of PS304 powders containing equal proportions of gas-atomized BaF₂-CaF₂ and those containing equal proportions of crushed BaF₂-CaF₂. Inasmuch as water atomization tends to be less expensive and better suited to high-volume production than is gas atomization, water atomization could be preferable for applications in which the shapes of the eutectic BaF₂-CaF₂ particles are not required to closely approximate spheres and the intermediate flow properties are acceptable.

This work was done by Christopher Della-Corte of Glenn Research Center and Malcolm K. Stanford of the University of Dayton. Further information is contained in a TSP (see page 1).

Inquiries concerning rights for the commercial use of this invention should be addressed to NASA Glenn Research Center, Innovative Partnerships Office, Attn: Steve Fedor, Mail Stop 4-8, 21000 Brookpark Road, Cleveland, Ohio 44135. Refer to NPO-40415, volume and number (see page 1).

In accordance with Public Law 96-517, the contractor has elected to retain title to this invention. Inquiries concerning rights for its commercial use should be addressed to: Innovative Technology Assets Management JPL Mail Stop 202-233 4800 Oak Grove Drive Pasadena, CA 91109-8099 (818) 354-2240 E-mail: iaooffice@jpl.nasa.gov

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