



Harper International
West Drullard Avenue
Lancaster, NY 14086
Tel: (716) 684-7400
Fax: (716) 684-7405
Media Contact: Diana Robbins
E-mail: drobbins@harperintl.com

September 10, 2012

FOR IMMEDIATE RELEASE

**Harper Contracts with Orbite Aluminae Inc.
for Revolutionary High Purity Alumina Processing Systems**

Buffalo, NY – Harper International, world leader in thermal processing solutions for advanced materials, announced a new project with Orbite Aluminae Inc. for two high temperature systems in series for conversion of aluminum chloride

Orbite conducted on-site testing at Harper's Technology Research Center in exploration of the best furnace design to support the 99.99%+ purity goal of their game-changing technology. The resulting two systems include a Rotary furnace for removing volatiles (calcination) and a higher temperature Vertical furnace for phase transformation. Orbite's material loses 80% mass as hydrochloric acid and water during the processing. In consideration of the corrosive by-products and high purity requirement, the first system is designed with a quartz tube and the second system has an alumina tube as the contact surface with the powder.

The systems will meet Orbite's initial scale up goal for their existing plant construction, expanding from their current small batch furnace. Harper's expertise in supporting customers during scale-up of advanced materials processing is part of its Ignite™ program.



Orbite Aluminae Inc. is a Canadian clean tech company whose innovative technologies are setting the new standard for alumina production. Orbite's technologies enable environmentally-neutral extraction of smelter-grade alumina (SGA), high-purity alumina (HPA) and high-value elements, including rare earths and metals, from a variety of sources such as aluminous clay and bauxite, without generating the toxic red mud residue that the traditional Bayer process produces.

About Harper International

Harper International is a global leader in complete thermal processing solutions, as well as technical services essential for the production of advanced materials. From concept to commercialization, from research scale to full production line operations, Harper is perpetually on the cutting edge. For decades, we have pioneered some of the world's most innovative, customized systems, with a focus on processing materials at high temperature and in non-ambient atmospheres. For additional information about Harper, please visit harperintl.com or email us at info@harperintl.com.

###