Precision Silicon Carbide Optics and Opto-Mechanical Components

NEWSLETTER

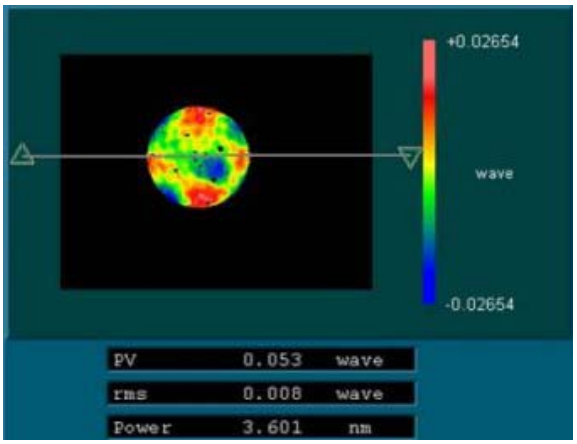
March 1, 2006

Welcome to the first quarterly newsletter from RAPT Industries!

We are sending you this newsletter to keep you up-to-date on the latest capabilities and activities of our company as well as providing current information about economical fabrication of advanced silicon carbide opto-mechanical components and developments in this exciting area of optics manufacturing.

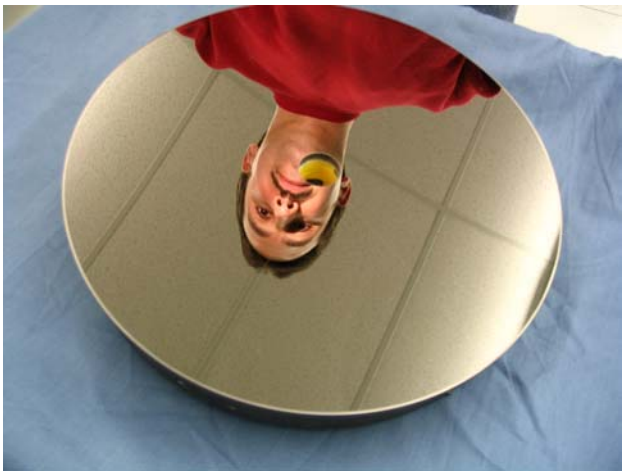
In the NEWS…

RAPT Industries finishes ultra-lightweight SiC mirror to better than 1/100 waves (RMS) SiC mirrors can be manufactured lighter and stiffer than nearly all other materials. However ultra-lightweight mirrors still present formidable polishing challenges. We recently demonstrated our capabilities in finishing ultra-lightweight mirrors when we polished a 6 inch lightweight flat (with an areal density of 11 kg/m^2) to better than 1/100 waves (RMS).



NASA selects RAPT Industries for Phase 2 SBIR funding Citing its innovative and promising integrated manufacturing process for lightweight SiC asphere finishing, NASA selected RAPT Industries for Phase 2 funding under its Small Business Innovation Research program. In the Phase 1 program, RAPT demonstrated the ability to measure and shape as-received SiC substrates using a combination of plasma and conventional finishing technologies. In Phase 2, RAPT will demonstrate its integrated manufacturing process to rapidly produce a series of increasingly complex lightweight SiC optics.

Finished SiC mirrors in 10 days – RAPT sets an industry record What do you do if your shipment of advanced SiC mirror substrates is delayed by a month, but your upcoming trade show is not? A major European manufacturer of precision manufacturing equipment faced this unpleasant situation in ahead of their largest and most important trade show. RAPT Industries expedited finishing of their fast steering mirrors in only 10 days, expediting coating and delivery to the customer with a few days to spare. RAPT Industries not only can deliver finished optics quickly but we also work closely with a number of coaters, coordinating and expediting the coating process.



RAPT finishes Coorstek's advanced segmented spherical mirror Large optical substrates made from any material can be expensive and there are manufacturing limits to the size of SiC monolithic blocks. At the latest SPIE meeting in San Diego, Coorstek announced the capability to build large SiC mirror substrates by brazing together smaller segments. Their proof? A 300 mm spherical substrate composed of 6 brazed segments. RAPT Industries was tapped to do the finishing.

RAPT acquires large flat finishing capability This Spring, RAPT will bring on line large-scale continuous grinding and polishing capability enabling the finishing of flat SiC mirrors up to 30 inches in diameter. Incorporated into RAPT's Integrated Manufacturing Process, this will provide customers of large integrated SiC optics and opto-mechanical assemblies with a new resource for rapid finishing. Tired of getting no-bids from the usual suspects? Drop us a line!

Questions? Contact us at sales@raptindustries.com or call us at 925-371-7278 from 8 AM to 6 PM (Pacific Time)

These newsletters can be found in pdf format on our website at www.raptindustries.com after March 20, 2006