



TSL NEWS



Several enquiries for re-entrant viewports used as vacuum system microscope or camera windows have been received by TSL this year.

Under Construction:

- A new TSL web-site is advancing well and will be uploaded soon!
- Design of a new TSL product catalogue is underway.....
- The next edition of the TSL newsletter will feature the newly installed Ebeam AR coating system.

X-Ray Anodes Excel at TSL!

Torr Scientific is pleased to announce expanded capability in X-Ray anode technology. X-Ray anodes are devices which emit x-rays in response to an incoming high energy electron beam. When sealed into vacuum devices they become the heart of X-ray tubes which are used in numerous medical, industrial and scientific applications. When incorporated with a vacuum flange, they become the source of X-Rays for analytical instruments used for X-Ray spectrometry.



during extended periods of operation and can readily double X-Ray anode lifetimes.

Over the past ten years, Torr Scientific has steadily advanced its ability to produce ever higher performance capability for both types of X-ray anodes. For basic anodes which apply sputter coated anode materials (i.e. targets) on copper heat sinks, we have perfected thickness, adhesion and finish criteria to produce X-Ray anodes with outstanding performance and reliability. For enhanced durability, Torr Scientific offers proprietary barrier layers which are introduced between the copper heat sink and the target. Such barrier layers prevent the alloying of the target material with the copper while also further improving the adhesion of the target layer to the copper. This technology helps to prevent target cracking and efficiency loss

Recently, Torr Scientific has introduced yet another major advance! We have developed a process that adds a single crystal diamond layer between the copper heat sink and the target material. Diamond's unmatched thermal conductivity enables far greater heat transfer from the target material to the copper heat sink. Torr uses advanced brazing techniques to vacuum seal the diamond to the heat sink and applies new sputter coating technology to apply thick layers of anode materials with outstanding adhesion and surface finish qualities. This advance is particularly important where the highest possible X-Ray energy and power density is desired. Power densities have tripled as a result!

Torr Scientific now offers these advanced technologies in everything from the refurbishing and recoating of existing X-Ray anodes to the manufacturing of complete X-Ray anode assemblies to customer specifications. Please contact us to discuss your specific application!

TSL Products:

- AR Coatings
- UHV Viewports
- X-ray sources
- CVD Diamond
- Phosphor Screens
- Filaments
- UHV Components



Simon at 10,000 feet.....

ROCKINGHORSE SKY-DIVE

Simon Mitchell & Mel Thomas of TSL completed a tandem sky-dive on behalf of the Rockinghorse charity. The mission of Rockinghorse is to make life better for children in Sussex hospitals. The jump took place at Headcorn Aerodrome near Maidstone in Kent at the end of September. The weather was kind and a good day was had. No limbs were broken and the day raised £1400 for the charity. Many thanks to the kind sponsors. TSL will be pleased to hear from any customers or suppliers who would like to join staff for a 2009 fund-raising event. Ideas welcome!