



Photonics | R&D | Production

Photonics

Your photonics development and manufacturing partner

Trajan Scientific and Medical works in collaboration with the Institute for Photonics and Advanced Sensing to be a globally recognized leader in the development and manufacture of high-quality, high-value critical glass components, and sensors that enable portable, selective and sensitive measurements and used in the medical, environmental and food industries.

Trajan has over 50 years experience in glass fabrication and micro-assembly of glass components and establishes complementary partnerships to deliver high quality scientific and medical components worldwide.

Photonics

We specialize in sensors and devices used in life science, environmental and food industries.

- Photonics product development services
- Manufacturing and commercialization partner
- Global distribution and marketing
- Collaboration with leading academic institutions such as:
 - Institute for Photonics and Advanced Sensing (IPAS), University of Adelaide, Australia
 - Center for Optics, Photonics and Lasers (COPL), Université Laval, Québec City, Canada
 - University of South Australia, Australia

Technical capabilities

- Specialty glass formulation
- Tailor made “soft glass” formulations such as Telluride, Germanate, ZBLAN and Indium Fluoride glass
- Doped silica and rare earth doping glasses by MCVD
- Specialty optical fibers
- Fibers and capillaries
- Microstructures fibers
- Fiber drawing modelling
- Optical fibers for sensing
- Fiber and capillary modification
- Tapering
- Splicing
- Cutting and cleaving
- Glass surface modification
- Chemical
- Functional coatings
- Glass characterization
- Composition analysis
- Surface profiling
- Metrology

Equipment

Process equipment:

- Controlled atmosphere glove boxes for fluoride and oxide glass melting
- Vapour deposition
- Extruders (100-1,000°C)
- Soft glass drawing tower (4 m, 900°C)
- Silica drawing tower (6 m, 2,200°C)
- Vytran splicing and tapering

Characterization equipment:

- Ellipsometer
- Optical profiler
- Carey spectrophotometer
- Thermal analysis
- Fourier transformation IR

Trajan Scientific and Medical

Science that benefits people

Trajan Scientific and Medical's focus is on developing and commercializing technologies that enable analytical systems to be more selective, sensitive and specific for biological, environmental or food related measurements, especially those that lead to portability, miniaturization and affordability.

Building on complementary and technically strong foundations in core glass fabrication capabilities, Trajan has partnered with the Institute for Photonics and Advanced Sensing to be a globally recognized leader in the development and manufacture of high-quality, high-value critical glass components and sensors.