
TRIOPTICS innovations at LASER, Munich

TRIOPTICS is one of the leading companies in the field of optical test and measurement equipment and offers solutions for production and research. TRIOPTICS measurement systems are used to test spherical and aspherical lenses, objectives and complete electro-optical systems. A lot has happened at TRIOPTICS since the last LASER and the results will be presented at this year's LASER in June. Here's an overview.



Cementing of achromats - fast, reliable and fully automated

OptiCentric[®] Cementing simplifies the cementing of achromats in production and research environment considerably. The entire process, from centering to the curing of cement, is automated and occurs within a matter of seconds with an accuracy of the doublet typically better than 2 μm . This is made possible by the new OptiCentric[®] Cementing module combined with the SmartAlign[®] algorithm. The centering error is measured in reflection mode according to the international standard ISO 10110-6.



Precise refractive index measurement for glass production

The TRIOPTICS SpectroMaster[®] has been specifically designed to measure the refractive index of optical glasses and crystals and has today an accuracy of 2×10^{-6} . The measurement process is based on the method of minimal deviation on a prism from the glass under test. The consistent use of mirror optics allows the refractive index to be determined over a very wide spectrum from UV to IR. Models with refractive optics are also available for the limited visible spectrum.



Wavefront analysis on intraocular lenses

The WaveMaster[®] IOL is based on a newly developed Shack-Hartman wavefront sensor and measures spherical and aspherical intraocular lenses according to EN/ISO 11979. An essential component is the standards-based, tempered model eye which enables a wavefront measurement under in-situ conditions in liquid. The system is also capable of analyzing bifocal and multifocal lenses. The convenient and comprehensive software offers real time calculation of Zernike coefficients including higher orders, MTF and PSF as well as variations in refractive power.

Come and visit us at LASER, Hall B2, Booth 309.