

Abstract Submitted
for the TSS05 Meeting of
The American Physical Society

Measurement of Index of Refraction using Low-Coherence Interferometry* JOSHUA DICKERSON, DHIRAJ SARDAR, University of Texas at San Antonio — The indices of refraction of various materials were measured in a Michelson interferometer using several low-coherence light sources and compared to the values measured by other methods. This measurement technique yielded a value of $n = 1.47$ for quartz and $n=1.33$ (660 nm) and $n = 1.32$ (940 nm) for water. The effects of dispersion in thick samples and other sources of error were also modeled and investigated. This technique will be used to measure the indices of refraction of various ocular tissues and compared with those available in the literature. * **This work was supported by the NSF sponsored Center for Biophotonics Science and Technology (CBST) at UC Davis.** * **The support by the UTSA Faculty Development Leave is duly acknowledged.** * **This work was also supported by NIH MARC-U*STAR Grant: GM07717.**

Dhiraj Sardar
University of Texas at San Antonio

Date submitted: 04 Feb 2005

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