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**Characterization of optical properties of human ocular tissues**[1]
CODY COECKELENBERGH, GUANG-YIN SWANLAND, RAYLON YOW, DHIRAJ SARDAR, UTSA Laser Research Laboratory, UTSA LASER RESEARCH LABORATORY TEAM — An in-depth characterization of optical properties of various tissue components of human eye has been performed. The total diffuse reflection and total transmission are measured on tissues by using spheres and infrared laser diodes. The indices of refraction of tissues were also measured. The Inverse Adding Doubling (IAD) method is applied to the values of n, $R_d$, and $T_t$ to determine the optical absorption and scattering coefficients of the human ocular tissues. The scattering anisotropy value was determined by iteratively running the IAD program and a Monte-Carlo simulation of light-tissue interaction until the minimum difference in experimental and computational values for $R_d$ and $T_t$ were realized.

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