

Abstract Submitted
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Optical Properties of Bovine Ocular Tissues in the Near Infrared Region¹ GUANG-YIN SWANLAND, student, RAYLON YOW, DHIRAJ SARDAR, ANDREW TSIN, ROBERT THOMAS — Optical properties of bovine ocular tissues have been determined in the near infrared region. The indices of refraction (n) of these ocular tissues were measured with a Michelson interferometer. The total diffuse reflectance (R_d), total diffuse transmittance (T_d), and collimated transmittance (T_c) on the individual tissues have been measured using a double-integrating sphere setup. The inverse adding doubling (IAD) method based on the diffusion approximation and radiative transport theory is applied to the measured values of n , R_d , T_d , and T_c to calculate the optical absorption and scattering coefficients as well as the scattering anisotropy of bovine ocular tissues.

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