

Advancements in Optical Fiber Sensors for Minimally Invasive Medical Diagnostics

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Abstract: *Optical fiber sensors have emerged as a promising technology in the field of minimally invasive medical diagnostics. This paper provides an overview of the recent advancements in optical fiber sensor applications, their benefits, and potential challenges in the realm of medical diagnostics. It highlights key developments in different types of optical fiber sensors, such as fiber Bragg gratings, interferometric sensors, and fluorescence-based sensors, emphasizing their contributions to improving diagnosis, monitoring, and treatment in various medical disciplines. The paper also discusses the challenges and future prospects of optical fiber sensors in the context of healthcare, paving the way for innovative and more accurate diagnostic procedures.*

Keywords: Optical fiber.

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