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标题: The Analysis on Long-period Fiber Grating Bending Sensing Rules
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摘要: Solve the problem of fiber grating measuring calibration pressure, temperature, dip Angle and other important parameters, it is a satisfactory solution to use high strength dielectric-coated metallic structure of the hollow fiber grating sensors too Hertz. Preliminary theory analysis and simulation and test results show that the absorption of polyethylene with smaller in the terahertz wave band an ideal choice to the terahertz hollow fiber membrane materials. Use of metal and metal structure dielectric-coated hollow fiber grave phase-shifted fiber grating, constitute a kind of fiber grating sensor calibration. Differential structure can be used to overcome the influence of the environment. Dielectric-coated metallic structure of the hollow fiber the coherent detection methods of obtaining high gain, phase-shifted fiber grating optical heterodyne method to detect frequency, use the frequency range is 1012 kHz, and the frequency resolution 1 KHz.
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