About Us



About this Journal

Submit a Manuscript

Table of Contents



Journal Menu

- Abstracting and Indexing
- Aims and Scope
- Article Processing Charges
- Articles in Press
- Author Guidelines
- Bibliographic Information
- Contact Information
- Editorial Board
- Editorial Workflow
- Reviewers Acknowledgment
- Subscription Information
- Open Special Issues
- Published Special Issues
- Special Issue Guidelines

Call for Proposals for Special Issues

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Research Article

Photonic Crystal Fiber Temperature Sensor Based on Quantum Dot Nanocoatings

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Abstract

Quantum dot nanocoatings have been deposited by means of the Layer-by-Layer technique on the inner holes of Photonic Crystal Fibers (PCFs) for the fabrication of temperature sensors. The optical properties of these sensors including absorbance, intensity emission, wavelength of the emission band, and the full width at half maximum (FWHM) have been experimentally studied for a temperature range from -40 to 70°.

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Abstract

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