



Advances in Laser-Based Gas Sensing Technologies

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Message from the Guest Editor

Dear Colleagues,

The rapid development of coherent and broadband light sources, optical and fiber-optics as well as electronics components has resulted in the rise of a broad range of their novel applications. One of those which has been an object of very intensive research carried on worldwide is laser spectroscopy for gas sensing. To date, laser-aided gas sensors have been constructed based on the use of clever measurement techniques, including TDLAS, WMS, PTS, QEPAS, CRDS, broadband optical frequency comb spectroscopy and many more.

This Special Issue aims to summarize the state-of-the-art methods, solutions, materials and apparatus currently used in selective, sensitive and precise optical gas sensing. The main topics of the Special Issue are connected with:

- Photothermal spectroscopy;
- Photoacoustic spectroscopy;
- Dispersion spectroscopy;
- Optical frequency comb spectroscopy;
- Remote sensing;
- Tunable and wavelength modulation spectroscopy;
- Single-frequency and broadband laser sources;
- Novel materials for optical gas sensing;
- Microstructured optical fibers and waveguides;
- Photodetectors and spectrometers.

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Message from the Editor-in-Chief

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