



CALL FOR PAPERS
IEEE Sensors Journal Special issue on
Sensors for Breath Analysis

The last two decades have witnessed pioneering advances in the analytical assessment of chemical compounds and metabolites exhaled in human breath. While the physiological relevance and meaning of many components in breath is not yet fully elucidated, it is evident that the composition of exhaled breath (EB) and breath condensate (EBC) provide a complex image of the biochemical processes in the body, which can be correlated to the physiological status of the patient. Bench-top investigations have elucidated the identities of many volatile and non-volatile breath biomarkers, there is current interest in the field to advance novel sensor concepts to monitor for these analytes in breath.

Technologies that will follow to make clinical breath analysis tests a reality will need to incorporate novel sensors that will meet a range of engineering design challenges. This special topics issue will explore novel sensors and methods that are currently being researched and developed in academic, national laboratories and industrial settings. Original research contributions, tutorials and review papers are sought in breath analysis areas including (but not limited to):

- MEMS/NEMS sensors
- Solid state detectors
- Miniature IR sensors
- Miniature breath collection/concentration modules
- Miniature gas chromatography and mass spectrometers applied towards breath analysis
- Enzyme-based sensors
- Informatics approaches to interpret sensor output for breath diagnostics
- System level designs for hand-held mobile breath sensing systems

Solicited and invited papers shall undergo the standard IEEE Sensors Journal peer review process. All manuscripts must be submitted on-line using the IEEE Sensors manuscript template, via the *IEEE Manuscript Central*[™], see <http://sensors-ieee.manuscriptcentral.com>. Upon submission, please indicate in the Author Comments section, and also by e-mail to Ms. Linda Matarazzo (l.matarazzo@ieee.org), that the paper is intended for this Special Issue. Authors for this Special Issue are encouraged to **suggest names of potential reviewers** for their manuscripts in the space provided for these recommendations in *Manuscript Central*. For manuscript preparation and submission, please follow the guidelines in the *Information for Authors* at the IEEE Sensors Journal web page, <http://www.ieee.org/sensors/sj>.

Deadlines:

- Manuscript Submission: November 15, 2008
- Notification of Acceptance: February 15, 2009
- Final Manuscript due: May 1, 2009
- Tentative publication date: July 2009

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