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## ACCEPTED MANUSCRIPT

Detection and quantification of lung cancer biomarkers by a micro-analytical device using a single metal oxide-based gas sensor.

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Highlights

- A micro-fabricated lung cancer biomarkers analyzer was successfully developed.
- The selective detection of four lung cancer biomarkers was possible with a single gas sensor.
- Zeolite DaY, a highly porous solid, was used to concentrate lung cancer biomarkers.
- The micro-system exhibited high selectivity and low limit of detection.

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