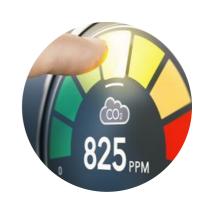


Industry Call for Opportunities

Seeking Adsorption-based Sensors for Measuring Carbon Dioxide Concentration in Ambient Air

A global leader in digital microsensors and systems is searching for technologies relating to the development of adsorption-based sensors for measuring carbon dioxide (CO2) concentration in ambient air. These sensors should be suited to complement existing CO2 measurement technologies and should be optimised for low production cost rather than accuracy.



Key Benefits/Features

The sensor should:

- 1. Be based on a chemical transduction principle
- 2. Have the potential to be significantly more cost-effective than the established sensor technologies
- 3. Have a measurement range between 400 and 2000 ppm CO2 (ambient air)
- 4. Have a limited cross sensitivity to ambient gases (humidity, VOCs, etc)
- 5. Have a small power consumption (e.g., very limited power budget for heating. Operation temperature should not exceed 100°C)
- 6. Be reflow solderable (temperature stable up to at least 200°C for 2 min)
- 7. Have a lifetime of more than two years, and be stable during several weeks of operation

Approaches of Interest

- Open to all transduction principles, however the manufacturing costs of the sensor should be below the established CO2 sensor technologies e.g., NDIR
- Technologies based on a chemical transduction principle (physisorption, chemisorption or a chemical reaction) are of the highest interest
- Technology should be fit for applications as e.g., indoor air quality, smart home, and low-cost ventilation
- · Research into the most promising material classes for CO2 sensing

Development Stage

The client is interested in CO2 sensor approaches at the pretotype/prototype level that have undergone testing. As a minimum, they would expect testing for the features defined in points 2, 3, 4 and 5 as stated above. Technologies at TRL 5-6 are preferred but TRL 3-4 will still be taken into consideration.

Submission Information

Submission of one-page, 200-300 word briefs are encouraged. In submitting to this campaign, you confirm that your submission contains only non-confidential information.

Our client is open to a range of collaboration opportunities, with the most appropriate outcome being decided on a case-by-case basis. Example outcomes include licencing assets, project/PhD funding, and research collaborations.

Opportunities sought



Academics and expertise

Centres of excellence

Research projects

Spinout companies

Submissions

Please submit relevant, non-confidential opportunities online via: <u>discover.in-part.com</u>

Deadline: 7th February 2022 - 11:59 pm GMT

Have any questions?

Contact our team at discover@in-part.co.uk