

Diaper sensors

Sensors with high body affinity and capable of identifying excreta

Overview

The market for "smart diapers" that detect the state of diapers and inform when to change diapers is expanding. Conventional diaper sensors that measure humidity or NH₃ gas are known, but they only detect urine and cannot distinguish between urine and feces. In addition, in semiconductor gas sensors, since the operating temperature of the sensor is high, it is necessary to heat the sensor chip.

The present invention solves the above problem and provides a diaper sensor that can distinguish urine and feces at room temperature. Moreover, by using a flexible substrate, a device that is thin, small, flexible, and highly biocompatible can be realized.

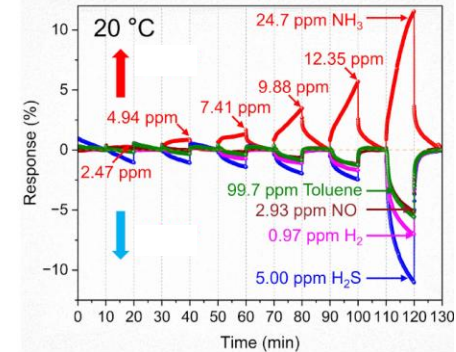
Product Application

- Diaper sensor
- Applicable to wearable devices by using flexible substrates
- Ammonia gas sensor

IP Data

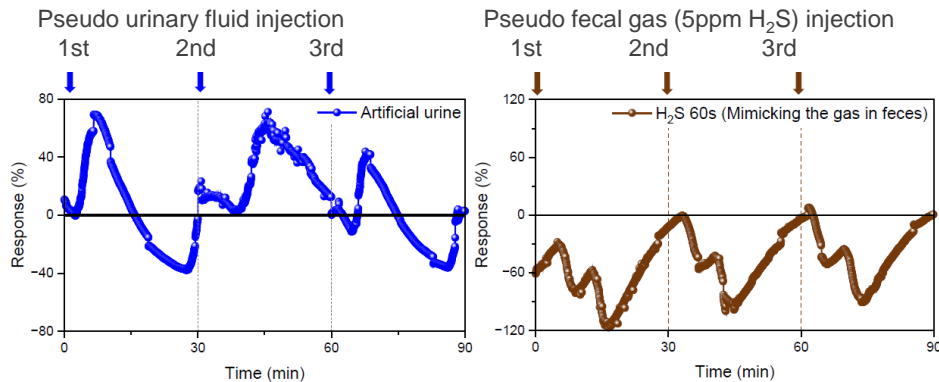
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 Admin No. : T24-065

Performance of the gas sensor of the present invention : Only NH₃ gas shows a positive response.



Opposite responses in urine and feces

Diapers were injected with pseudo-urine solution (NH₃) and pseudo-fecal gas (H₂S) and evaluated



Related Works

[1] xxx

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