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Development of Solution Processible Organic-inorganic Hybrid Materials with Core-shell Framework for Humidity Monitoring

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Highlights

- A novel organic-inorganic hybrid material PSS@SNs with the core-shell framework was prepared.
- The small SNs size and the modification of hydrophilic polyelectrolyte endow the ability of preparing films with the solution process method.
- The obtained sensor is applied for respiratory rate monitoring due to the particularly rapid response.
- The impedance analysis under different frequencies is used to support equivalent circuit modes of the sensor at different RH.

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