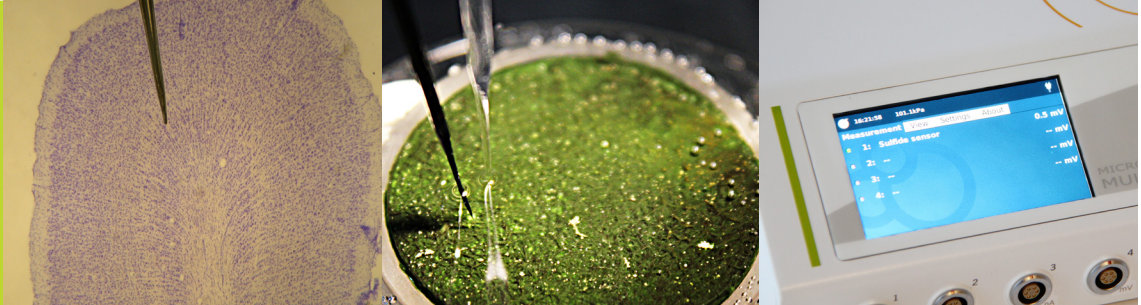


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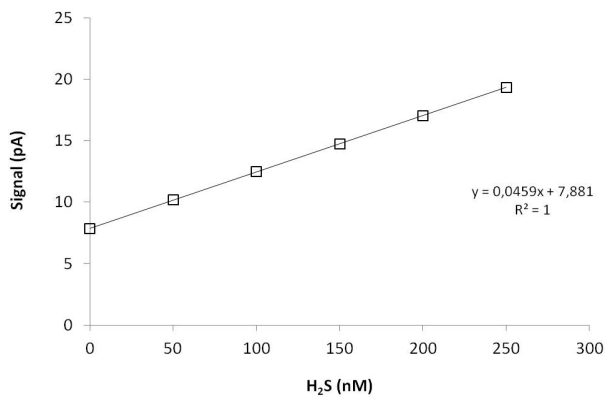


Ultra sensitive H₂S microsensor for biomedical research

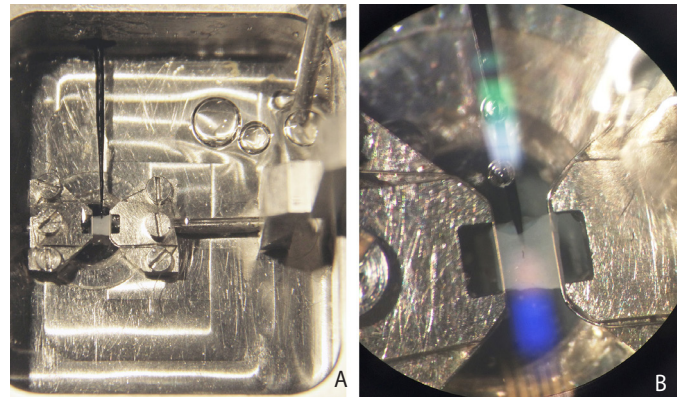
A new generation of Unisense' H₂S sensor shows increased sensitivity with consistent detection of H₂S concentrations down to 10nM

Unisense has made an ultrasensitive H₂S microsensor for Prof. Ulf Simonsens group at the Department of Biomedicine at Aarhus University for studying vasodilatation of arteries as a function of H₂S concentration.

This very low-concentration range sensor can be utilized in biomedical applications where the low naturally occurring H₂S concentrations makes it difficult for other types of sensors to obtain the needed stability and resolution.



Low range H₂S sensor calibration



A: 100um H₂S sensor mounted inside rat blood artery, B: Close up

In collaboration with Professor Ulf Simonsen at Aarhus University we have tested this new sensor for use in studies of the effect of H₂S on the vasodilatation in artery. In the experimental setup we placed the H₂S sensor inside a rat superior mesenteric artery mounted in a myograph and we were able to detect low range H₂S concentrations after small injections of Na₂S into the myograph.

In future studies the ultra sensitive H₂S sensor will be used to elucidate the role of H₂S in biomedicine.

