

IPSSC +
CMBO

STUDENTS' CONFERENCE

Jožef Stefan International Postgraduate School
and Young Researchers' Day CMBO

19 and 20 April

Sensor for formaldehyde detection

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Poster number: 56

FORMALDEHYDE SENSOR

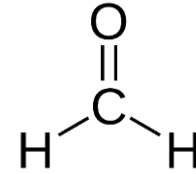
Health Hazards

Acute exposure:

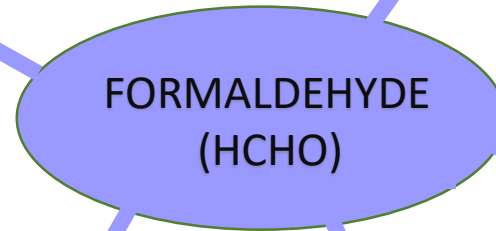
- Cause nausea and irritation of the skin, eyes, nose and throat
- Cause coughing and wheezing and upper respiratory tract irritation

Chronic exposure:

- Lead to a chronic runny nose, bronchitis, lung disease and cancer
- Cause cancer



- Organic compound
- Known as a methanal
- An important precursor to many other materials and chemical compounds



Chromatographic/spectroscopic instruments:

- Expensive
 - Impractical
 - Long analysis
- Sensors:**
- Cheaper
 - Mobile
 - Smaller
 - Fast analysis

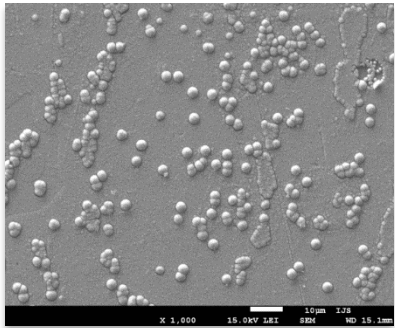
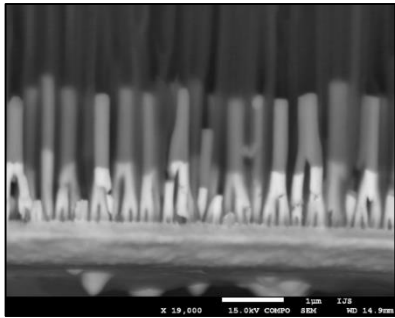
Do I need sensor?

No!

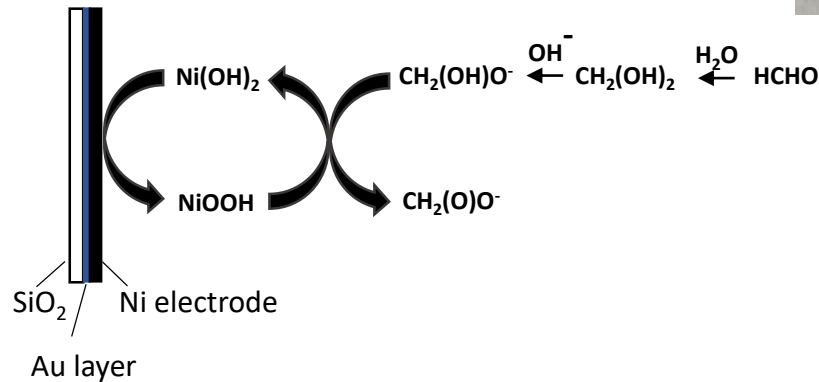
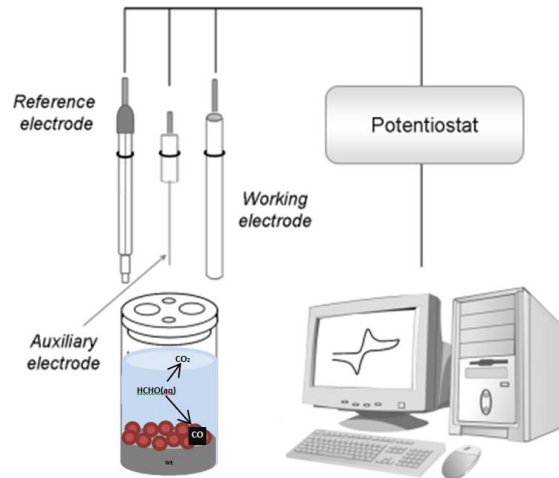


The development of sensor

1.) Synthesis of nanomaterial



2.) Investigation of formaldehyde oxidation



3.) Construction of sensor for real-time analysis



Formaldehyde?!



Spathiphyllum

- cleans indoor air of certain environmental contaminants, including FORMALDEHYDE (NASA Air Study)



Source: <http://oglesbytc.com/catalog/foilage-and-tropicals/spathiphyllum/spathiphyllum-7th-heaven-ppaf.html>



THANK YOU FOR
YOUR ATTENTION!

