



THE INSTITUTE FOR  
MOLECULAR  
ENGINEERING

# Seminar Series

SPEAKER

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### Catalytic wet peroxide oxidation of organic contaminants with $\text{TiO}_2$ and $\text{Au/TiO}_2$ catalysts in dark

The heterogeneous catalytic Fenton wet peroxide oxidation of phenol was compared with  $\text{Fe/SiO}_2$ ,  $\text{Au/Hydroxyapatite}$  and  $\text{Au/TiO}_2$  catalysts. The only one leach proof system at conditions required for efficient TOC removal is Au deposited on titania. At proper operation conditions  $\text{TiO}_2$  and  $\text{Au/TiO}_2$  catalysts allow reaching > 95% mineralization of phenol and stable operation. The  $\text{Au/TiO}_2$  is efficient in decontamination of industrial wastewater containing halogenated organics decreasing the TOC content and increasing the biodegradability of remained organics.

## Thursday, April 17<sup>th</sup>

### 1 PM GCIS W301

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