

# The 67th *MANA* Special Seminar



**Metal Oxide Nanoparticle Thin Film Voltammetry:  
From Mono- to Multi-Layer Systems and from Bulk- to  
Surface-Conductors** Chair: Dr. Martin Pumera (MANA Scientist)

**Prof. Frank Marken**

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In contrast to the well-studied voltammetry of metal particles, only surprisingly little is known about the voltammetry and surface processes at metal oxide particles. In this presentation data for  $\text{TiO}_2$ ,  $\text{SnO}_2$ ,  $\text{CeO}_2$ , and  $\text{Fe}_2\text{O}_3$  will be summarized and new features explained, which are observed when very thin films of metal oxide nanoparticles immobilized on ITO electrode surface are employed. The layer-by-layer deposition process is employed to explore thickness and compositional effects in nanoparticle thin film voltammetry. Applications in electroanalysis are highlighted.

**Venue: Seminar Room #431, MANA Bldg., Namiki**

**Date: Mar 19<sup>th</sup> Thursday Time: 15:30-16:30**

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