The Hebrew University Center
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האוניברסיטה
העברית
בירושלים

Nano Seminar

Catalyst Design and Electrochemical Activation for Fuel cells, Redox Flow Batteries and Electrolyzers

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Abstract:

In this lecture, we shall show several examples of electrochemical activation for electrocatalytic generation and conversion of hydrogen in alkaline or acidic conditions. The colloidal syntheses are extremely well adapted to the synthesis of complex catalysts.[1] During the past decade, the quest for sustainability in electrochemical energy conversion and storage has motivated the investigation of electrochemically active materials with a great control on the electrified interface.

In most of the electrochemical devices, the interface between a solid and an electrolyte should promote a high efficiency, selectivity and chemical stability for important reactions like water splitting, fuel electrochemical conversion and chemical storage. The electrocatalysts display a high activity and stability towards hydrogen oxidation/evolution reaction[2,3] and oxygen evolution/oxidation reaction[4,5] in acidic or alkaline solutions, even in high concentration of corrosive species.[6]

Gathering & Refreshments at 10:50
Tuesday, December 25th 2018, 11:00 at the Seminar Hall
Los Angeles Building, entrance floor.
Please contact Alexandra Bannych at 6584919 if you are interested in meeting the lecturer