



Univerzita Karlova v Praze, Přírodovědecká fakulta

Sekce chemie PŘF UK v Praze
zve všechny zájemce na přednášku z cyklu

Quo Vadis Chemie

Bimetallic Nanoclusters as a Unique Catalyst



kterou přednese

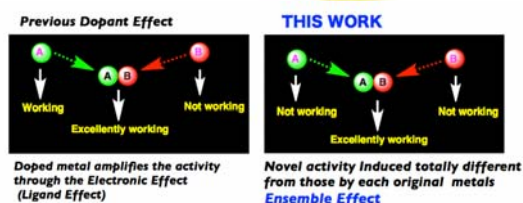
Prof. Hidehiro Sakurai

Division of Applied Chemistry, Graduate School of
Engineering, Osaka University, Japan

dne 20.06. v 15:00 hod.

v posluchárně CH2, v budově chemických kateder PŘF UK
Hlavova 8, Praha 2

Abstract: Recently we found that the bimetallic alloy nanoclusters exhibited totally different catalytic activity from the original single metal catalysts. These findings strongly suggest us that we have great opportunities to develop the novel reactions, which had never been realized by any types of catalysts, simply through the combination of the metals, as if it were modern alchemy. In this presentation I will demonstrate low-temperature carbon-chlorine bond activation by Au/Pd bimetallic system [1-6] and carbon-fluorine bond activation by Pd/Pt bimetallic system.



[1] R. N. Dhital, H. Sakurai, *Chem. Lett.* **2012**, 41, 630.

[2] R. N. Dhital, C. Kamonsatikul, E. Somsook, K. Bobuatong, M. Ehara, H. Sakurai, *J. Am. Chem. Soc.* **2012**, 134, 20250.

[3] R. N. Dhital, C. Kamonsatikul, E. Somsook,

Y. Sato, H. Sakurai, *Chem. Commun.* **2013**, 49, 2542.

[4] B. Boekfa, E. Pahl, N. Gaston, H. Sakurai, J. Limtrakul, M. Ehara, *J. Phys. Chem. C* **2014**, 118, 22188.

[5] S. Karanjit, A. Jinasan, E. Somsook, R. N. Dhital, K. Motomiya, Y. Sato, K. Tohji, H. Sakurai, *Chem. Commun.* **2015**, 51, 12724.

[6] R. N. Dhital, K. Bobuatong, M. Ehara, H. Sakurai, *Chem. Asian J.* **2015**, 10, 2669.