

# Yi Dong

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## Education

2011

**Ph.D. in chemistry**, *Laval University*, Quebec, Canada.

2009

2011

**M.Sc. in chemistry**, *Laval University*, Quebec, Canada.

2002

2006

**B.S. Materials sciences and engineering**, *Nanjing University of Science and Technology*, Jiang Su, Chine.

## Mémoire

titre *Étude de la catalyse hétérogène asymétrique par des techniques de spectroscopie de surface*

director Professor Peter H. McBreen

description Spectrometric and spectroscopic study of surface science in ultrahigh vacuum chamber

## Scholarship

- Postgraduate scholarship from natural science and engineering research council of Canada (NSERC)
- Paul-Antoine-Giguère scholarship
- Center in green chemistry and catalysis (CGCC)

## Languages

French Advanced

*Daily practice in life and work*

English Advanced

*Daily practice in work*

Mandarin Native

## Conferences

## Oral presentation

2015

75<sup>th</sup> Physical Electronics Conference, *New Brunswick*, United States.

2013

AVS 60<sup>th</sup> International Symposium & Exhibition, *Long Beach*, United States.

2012

80<sup>th</sup> Association francophone pour le savoir(ACFAS) congress, *Montreal*, Canada.

## Poster presentation

2010

Several poster presentations.

## Skills

Instrument	STM, TPD, RAIRS, XPS
Languages	Python(OOP), Matlab
Software	CasaXPS, OPUS, Nanonis, Labview

## Publications

2016

Lemay, Jean-Christian, Dong, Yi, Groves, Michael N., Demers-Carpentier, Vincent, Goubert, Guillaume, Lafleur-Lambert, Raphaël, Boukouvalas, John, Hammer, Bjørk, and McBreen, Peter H. “A comparative study of diastereomeric complexes formed by a prochiral substrate and three structurally analogous chiral molecules on Pt(111)”. In: *Surf. Sci.* Surface science for heterogeneous catalysis, a special issue in Honour of Richard Lambert 646, pp. 13–18.

2015

G, Goubert., Grove, M. N., Dong, Y., Lemay, J.-C., McBreen, P. H., and Hammer, B. “Isolating a Reaction Intermediate in the Hydrogenation of 2,2,2-Trifluoroacetophenone on Pt(111)”. In: *J. Phys. Chem. C* 119.13, pp. 7319–7326.

2015

Svane, K., Dong, Y., Groves, M. N., Demers-Carpentier, V., Lemay, J.-C., Ouellet, M., Hammer, B., and McBreen, P. H. “Single-chiral-catalytic-surface-sites: STM and DFT study of stereodirecting complexes formed between (*R*)-1-(1-naphthyl)ethylamine and ketopantolactone on Pt(111)”. In: *Catal. Sci. Technol.* 135.1, pp. 743–753.

2014

Goubert, G., Rasmussen, A. M. H., Dong, Y., Groves, M. N., McBreen, P. H., and Hammer, B. "Walking-like diffusion of two-footed asymmetric aromatic adsorbates on Pt(111)". In: *Surf. Sci.* 629.1, pp. 123–131.

2014

Groves, M. N., Goubert, G., Rasmussen, A. M. H., Dong, Y., Lemay, J.-C., Demers-Carpentier, V., McBreen, P. H., and Hammer, B. "Stereodirection of an  $\alpha$ -Ketoester at Sub-molecular Sites on Chirally Modified Pt(111): Heterogeneous Asymmetric Catalysis". In: *Surf. Sci.* 629.1, pp. 49–56.

2013

Demers-Carpentier, V., Rasmussen, A. M. H., Goubert, G., Ferrighi, L., Dong, Y., Lemay, J.-C., Masini, F., Zeng, Y., Hammer, B., and McBreen, P. H. "Stereodirection of an  $\alpha$ -Ketoester at Submolecular Sites on Chirally Modified Pt(111): Heterogeneous Asymmetric Catalysis". In: *J. Am. Chem. Soc.* 135.27, pp. 9999–10002.

2012

Demers-Carpentier, V., Goubert, G., Masini, F., Dong, Y., Rasmussen, A. M. H., Hammer, B., and McBreen, P. H. "Scanning Tunneling Microscopy Measurements of the Full Cycle of a Heterogeneous Asymmetric Hydrogenation Reaction on Chirally Modified Pt(111)". In: *J. Phys. Chem. Lett.* 3.1, pp. 92–96.

2011

Demers-Carpentier, V., Goubert, G., Masini, F., Lafleur-Lambert, R., Dong, Y., Lavoie, S., Mahieu, G., Boukouvalas, J., Gao, H. L., Rasmussen, A. M. H., Ferrighi, L., Pan, Y. X., Hammer, B., and McBreen, P. H. "Direct Observation of Molecular Preorganization for Chirality Transfer on a Catalyst Surface". In: *Science* 334.6057, pp. 776–780.

2011

Goubert, G., Demers-Carpentier, V., Masini, F., Dong, Y., Lemay, J.-C., and McBreen, P. H. "Weak interactions in the assembly of strongly chemisorbed molecules". In: *Chem. Commun.* 47.32, pp. 123–131.