DARÍO J. STACCHIOLA

Chemist
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www.mtu.edu/chemistry/department/faculty/stacchiola/

Present Position

Chemist
Chemistry Department, Brookhaven National Laboratory — Upton, NY (2010-)
Adjunct Assistant Professor
Chemistry Department, Michigan Technological University — Houghton, MI (2010-)

Education and Training

Humboldt Research Fellow — Berlin, Germany (2005-2007)
Dept. of Chemical Physics, Fritz-Haber-Institute, Max-Planck-Society
Ph. D. Degree in Physical Chemistry, Surface Science — Milwaukee, WI (2002)
University of Wisconsin-Milwaukee (UWM)
B.S. in Physics — San Luis, Argentina (1996)
Universidad Nacional de San Luis (UNSL)

Employment

Assistant Professor, Chem Dept, MTU	Houghton (2009-2010)
Research Associate, Chem Dept, BNL	Brookhaven (2007-2009)
Postdoc, Chem Phys Dept, FHI	Berlin (2005-2007)
Research Associate, Chem Dept, UWM	Milwaukee (2002-2005)
Teaching Assistant, Chem Dept, UWM	(1997-2002)
Teaching Assistant, Phys Dept, UNSL	San Luis (1994-1997)
Teaching Assistant, Math Dept, UNSL	(1994-1996)
Teacher, Italian Language, J.C.L. High School	(1992-1997)
Lecturer, Pronunciation of Italian, Universidad Cat. de Cuyo	(1992-1993)

Research

Catalysis: Reactivity and Structure, Chemistry Dept., BNL — (2007-)
Research: Nano-Catalysis, Mixed-Metal Oxides, In-situ reactions — Brookhaven
(Synchrotron AP-PES, AP-STM, AP-IRRAS, Inverse Catalysts)

Structure and Reactivity Group, FHI — (2005-2007)
Research: Synthesis under UHV of model Mixed-Metal Oxides — Berlin
(Synchrotron PES, XPS, STM, IRRAS, LEED, Thin Films, Nanoparticles)

Lab. of Surface Science, Chemistry Dept., UWM. — (1997-2005)
Research: Model catalyzed hydrocarbon reactions at ambient pressures — Milwaukee
(Molecular Beam, TPD, AP-PM-IRRAS, Auger).

Lab. of ion interaction with surfaces, Balseiro Atomic Center, Argentina — (1997)
Research: Adsorption of H on GaAs(110) and Ar^+ irradaition of Si(111) — Bariloche, Arg.

Phys. Chem. of Surfaces Group, Phys. Dept., UNSL, Argentina. — (1995-1997)
Research: Adsorption of gases on heterogeneous surfaces — San Luis
(Theory, Monte Carlo Simulation).

Associations

American Chemical Society (ACS) — (1997-)
American Vacuum Society (AVS) — (2008-)

Journalism

Scientific Correspondent of La Búsqueda — San Luis, Arg (2002-)

Languages

English, Spanish, Italian, German

Selected Honors and Awards

- Elected Member for the IWOX International Board (2012-present)
- 18th Meeting of Nobel Laureates in Chemistry, Lindau, Germany (2006)
- "Humboldt Research Fellowship", AvH Foundation Germany (2005)
- "Poster Award Winner", Spring Nat. Meeting (ACS) USA (2000)
- "Honor's Degree", UNSL, GPA: 9.17 (scale 0-10) Argentina (1996)

Meeting Organizer

-9th International Workshop on Oxide Surfaces (IWOX-IX) Lake Tahoe, CA (2014)
Organizers: Salmeron, Chambers and **Stacchiola**
-Symposium at 246th ACS National Meeting Indianapolis, IN (2013)
"The Role of Oxides in Catalysis: Structure, Selectivity and Stability"
ENFL Division. Organizers: **Stacchiola**, Senanayake and Sterrer
-Symposium at 244th ACS National Meeting Philadelphia, PA (2012)
"Spectroscopy and Microscopy in Catalysis: The In-situ Age"
ENFL Division. Organizers: **Stacchiola** and Starr
-8th International Workshop on Oxide Surfaces (IWOX-VIII) Spain (2012)
Organizers: Harrison, Thornton, Schaub, **Stacchiola** and Illas
-NSLS/CFN User Meeting Workshop Upton, NY (2011)
"Advances in Synchrotron Methods for Catalysis and Surface Science Research"
Organizers: Sadowski, Senanayake, **Stacchiola** and Starr

Recent invited presentations (from 53 invited and contributed presentations)

- Hayashi Conference: Next decades of Surface Science Hayama, Japan
- Univ. of Calgary, Chem. and Petroleum Eng. Dept Calgary, Canada
- ACS Fall Nat Meet (Symposium in Honor of Eli Ruckenstein) Philadelphia, PA
- Surface Analysis '12 and PNWAVS Annual Symposium Richland, WA

Advising and Hosting

Undergrad. Students: K Luck (Univ of Michigan), B Jimenes (Suffolk Community Coll.) C Velez (UPR)
Grad. Students: F Xu (PhD,SBU), S Kuboon (PhD,MTU), C Dutta (MS,MTU), H Guzman (PhD, U of Calgary), J Vecchietti (PhD, UNL, Argentina), L Betancourt (PhD,UPR)
Post-Docs: F Yang (now at Dalian Inst, China), A Baber, K Mudiyanselage.
Visiting Scientists: Prof. M.Nazzarro (UNSL, Argentina), Prof. F.Hoffmann (CUNY, USA), Prof. C.Cabrera (UPR-Rio Piedras, Puerto Rico)

Representative Journal Publications (from 110; **h-index** 25 *ISI* Web of Science *Google Scholar*)

-Highly Active Copper-Ceria and Copper-Ceria-Titania Catalysts for Methanol Synthesis from CO_2
Science, doi: 10.1126/science.1253057 ..... (2014)

-Stabilization of catalytically active Cu^+ surface sites on titanium-copper mixed oxide films
Angew. Chem. Int. Ed. **53**, 5336 –5340 (Hot Paper) ..... (2014)

-*In Situ* Imaging of Cu_2O under Reducing Conditions
J. Am. Chem. Soc. **135**, 16781 (Highlighted in JACS Spotlights: *JACS* 135, 17653, 2013) ..... (2013)

-Fundamental Studies of Well-Defined Surfaces of Mixed-Metal Oxides
Chem. Rev. **113**, 4373–4390 ..... (2013)

-Importance of the Metal-Oxide Interface in Catalysis: *In-situ* Studies by AP-XPS of the Water-Gas Shift Reaction
Angew. Chem. Int. Ed. **52**, 5101–5105 ..... (2013)

-A New type of Strong Metal-Support Interaction
J. Am. Chem. Soc. **134**, 8968 (Highlighted in News and Views: *Nat Chem* **4**, 597, 2012) ..... (2012)

-Controlling the Nature of Mixed-Metal Oxide Catalysts at the Nanometer Level
Proc. Natl. Acad. Sci. U.S.A. **106**, 4975 (Highlighted in Editor's choice: *Science* **324** 24 April 2009) ..... (2009)

-Synthesis and structure of an ultra-thin aluminosilicate film
Angew. Chem. Int. Ed. **45**, 7636-7639 (VIP Paper) ..... (2006)

-Elucidation of the reaction mechanism for the catalytic synthesis of vinyl acetate by palladium
Angew. Chem. Int. Ed. **44**, 4572-4574 ..... (2005)

Grants Awarded:

-FWP CO-027 "Mechanisms for Water Gas Shift Reaction".....(Current)
DOE-BES
Multi-PIs

-FWP CO-009 "Catalysis Science for Advance Fuels" ..... (2010-Current)
DOE-BES
Multi-PIs

-FWP CO-38 "Partial Support for the IX International Workshop on Oxide Surfaces" .....(2014)
DOE-BES
PI: **Dario Stacchiola**

-50381-DNI5 "The nano-interface between material science and organometallic chemistry"..... (2010-12)
PRF-ACS
PI: **Dario Stacchiola**

Synergistic Activities:

Journal Editorial:	Managing Guest Editor for the SI: "Oxides in Catalysis" to be published in *Catalysis Today*
Proposal Reviewer:	DOE-BES, NSF (Catalysis Panels), ACS-PRF, CFN-BNL and NSLS.
Journal Referee:	*Chemical Society Reviews*, *Journal of American Chemical Society*, *Nature Communications*, *Chemical Communications*, *ACS Catalysis*, *Journal of Physical Chemistry* (Letters and C), *PCCP*, *Topics in Catalysis*, *Physics A*, others.

Book Chapters:
Chapter 8: In-situ IR spectroscopy on model catalysts
K Mudiyanselage and **D Stacchiola**
In "*In situ Characterization of Heterogeneous Catalysis*", Wiley ISBN: 978-1-118-35591-6.....(2013)

Book Reviews:
"Book Review of Heterogenized Homogeneous Catalysts for Fine Chemicals Production: Materials and Processes"
D Stacchiola
J. Am. Chem. Soc. **133**, 8773–8773 .....(2011)

Thesis:
"The role of surface hydrocarbon species during catalytic reactions at high pressures"
D Stacchiola
Ph.D. Thesis, UWM .....(2002)

"Sequential Adsorption on heterogeneous substrates"
D Stacchiola
Lic. Thesis, UNSL .....(1996)

Full List of Awards and Fellowships

- Humboldt Research Fellowship, AvH Foundation	Germany (2005)
- Poster Award Winner, Spring Nat. Meeting (ACS)	USA (2000)
- Honor's Degree, UNSL, GPA: 9.17 (scale 0-10)	Argentina (1996)

Best presentation, LSS Summer Student Symposium (UWM)	(2001)
Annual Poster Competition, Chemistry Dept. (UWM)	(2001)
1st Place Award for outstanding student presentation, Surf. Anal. 99 (AVS)	(1999)
UWM, Dissertator Fellowship	(2001-2002)
UWM, Graduate School Fellowship,	(1999-2000)-(2000-2001)
Culture and Education Ministery of Argentina. Object: Graduate Studies,	(1997-1999)
Sec. of Sci. & Tech., UNSL, Graduate research assistant,	(1997)
Balseiro Institute, Experimental research at Instituto Balseiro,	(1997)
Sec. of Sci. & Tech., UNSL, Undergraduate research assistant,	(1996)
IVF (Universidad Austral de Chile), Summer School in Physics,	(1996)
UWM Graduate School Travel Schol, Talk at the Surface Canada Conference	(2002)
AVS Hoffman Travel Schol, Talk at the AVS 47th Symp.,	(2000)
2nd San Luis Symp. on Surf., Interf. And Catal. Travel Schol	(2000)
Milw. Sec. of the ACS Travel Schol., Talk at the Nat. Meeting (ACS),	(2000)

Full List of Meetings and Presentations

53- COST Redox WG3 Meeting (Invited Talk)	Prague, Czech Republic (2014)
52- Oak Ridge National Laboratory (Invited Seminar)	Oak Ridge, TN (2014)
51- 9th International Workshop on Oxide Surfaces (IWOX-IX)	Lake Tahoe, CA (2014)
50- ACS Fall Nat Meet (Symposium Organizer; Invited Talk)	Indianapolis, IN (2013)
49- NSLS-II First-Experiments Workshop (Invited)	Upton, NY (2013)
48- Hayashi Conference: Next decades of Surface Science (Invited)	Hayama, Japan (2013)
47- DOE Contractors Meeting (Poster)	Annapolis, MD (2013)
46- New Jersey Institute of Technology (Invited)	Newark, NJ (2013)
45- Univ of Puerto Rico-Rio Piedras (Invited)	Rio Piedras, Puerto Rico (2013)
44- Univ. of Calgary (Invited)	Calgary, Canada (2012)
43- ACS Fall Nat Meet (Symposium Organizer; Invited Talk)	Philadelphia, PA (2012)
42- Surface Analysis '12 and PNWAVS Annual Symposium (Invited)	Richland, WA (2012)
41- ACS Spring Nat Meet (Invited, Session Presider)	San Diego, CA (2012)
40- CUNY York College, Chem Dept (Invited)	Jamaica, NY (2012)
39- IWOX (VIII) (Organizer)	Baqueira Beret, Spain (2012)
38- FHI Centenary Celebrations (Participant)	Berlin, Germany (2011)
37- DOE Contractors Meeting (Poster)	Annapolis, MD (2011)
36- CXLS Workshop at PNNL (Invited)	Richland, WA (2011)
35- NSLS/CFN Users Meeting (Workshop Organizer)	Upton, NY (2011)
34- MRS Spring Nat. Meet. (Oral)	San Francisco, CA (2011)
33- ACS Spring Nat. Meet. (Oral)	Anaheim, CA (2011)
32- Gordon Research Conference, Chemical Reactions At Surfaces (Poster)	Ventura, CA (2011)
31- AVS Nat Meet (Oral)	Albuquerque, NM (2010)
30- Seminar at Phys Dept, Stony Brook University (invited)	Stony Brook, NY (2010)
29- Seminar at Phys Dept, Michigan Technological university (invited)	Houghton, MI (2009)
28- ACS SERMACS (Oral)	San Juan, Puerto Rico (2009)
27- University of Puerto Rico-Mayagüez (invited)	Mayagüez, Puerto Rico (2009)
26- Phys Dept, UNLP (Invited)	La Plata, Argentina (2008)
25- INTEC, CONICET (Invited)	Santa Fe, Argentina (2008)
24- Phys Dept, UNSL (Invited)	San Luis, Argentina (2008)
23- AVS Nat. Meet. (Oral)	Boston, MA (2008)
22- ACS Fall Nat. Meet. (Oral, Poster)	Boston, MA (2007)
21- Gordon Research Conference, Chemical Reactions At Surfaces (Poster)	Ventura, CA (2007)
20- XX Iberoamerican Symposium of Catalysis (Oral)	Gramado, Brasil (2006)
19- 18th Lindau Nobel Laureate Meeting in Chemistry, (Selected Participant)	Lindau, Germany (2006)
18- Seminar at Inst. of Mat. Chem., Vienna Univ. of Tech.	Vienna, Austria (2006)
17- ISIS Seminars, Rutherford Appleton Lab. (Invited)	Chilton, U.K. (2006)
16- Future Trends in Material Science, Workshop FHI (Assistant)	Berlin, Germany (2005)
15- ACS Fall Nat. Meet. (Poster)	Philadelphia, PA (2004)
14- Fed. of Anal. Chem. and Spect. Soc. (FACSS 30th) (Invited)	Ft. Lauderdale, FL (2003)
13- 35th Great Lakes Regional Meeting (ACS) (Oral)	Chicago, IL (2003)
12- XVIII Iberoamerican Symposium of Catalysis (Oral)	Isla Margarita, Venezuela (2002)
11- 18th Surface Canada (Oral)	Ottawa, Canada (2002)
10- ACS Spring Nat. Meet. (Poster)	Chicago, IL (2001)
9 - American Vacuum Society (AVS) 47th Nat. Meet. (Oral)	Boston, MA (2000)
8 - 2nd San Luis Symp. on Surf., Interfaces And Catal. (Oral)	Mar del Plata, Arg. (2000)
7 - ACS Spring Nat. Meet. (Poster)	San Francisco, CA (2000)
6 - AVS Surface Analysis 99 (Poster)	Waukesha, WI (1999)
5 - 31st Great Lakes Regional Meeting (ACS)	Milwaukee, WI (1998)
4 - 10th Argentine Meeting of Physical-Chemistry (Poster)	Tucumán, Arg. (1997)
3 - 81th Nat. Meet. of the Argentine Physics Society AFA (Poster)	Tandil, Arg. (1996)
2 - 80th Nat. Meet. (AFA) (Poster)	Bariloche, Arg. (1995)
1 - 78th Nat. Meet. (AFA) (Poster)	Rosario, Arg. (1993)

Full List of Journal Publications
(h-index: **25** ***ISI* Web of Science** ***Google Scholar*****)**

110 - "Self-Assembled One-Dimensional Molecular Chains of Aromatic Isocyanides on Au(111)"
J Zhou, Y Li, P Zahl, P Sutter, **DJ Stacchiola**, MG White
(Submitted)

109 - "Redox-Mediated Reconstruction of Cu(111) During CO Oxidation"
F Xu, K Mudiyanselage, AE Baber, M Soldemo, J Weissenrieder, MG White, **DJ Stacchiola***
J. Phys. Chem. C, doi: 10.1021/jp5050496 .....(2014)

108 - "Synthesis of α-MoC_{1-x} and β-MoC_y catalysts for CO_2 hydrogenation by thermal carburization of Mo-oxide in hydrocarbon and hydrogen mixtures"
W Xu, PJ Ramirez, **D Stacchiola**, JA Rodriguez
Cat. Letts., doi: 10.1007/s10562-014-1278-5 .....(2014)

107 - "Highly Active Copper-Ceria and Copper-Ceria-Titania Catalysts for Methanol Synthesis from CO_2"
J Graciani, K Mudiyanselage, F Xu, AE Baber, J Evans, SD Senanayake, **DJ Stacchiola**, P Liu, J Hrbek, J Fernández-Sanz, JA Rodriguez
Science, doi: 10.1126/science.1253057 .....(2014)

106 - "Isolation and Characterization of Formates on CeO_x-Cu_yO/Cu(111)"
K Mudiyanselage, AE Baber, Z Liu, SD Senanayake, **DJ Stacchiola***
Catalysis Today, doi: 10.1016/j.cattod.2014.06.001 .....(2014)

105 - "Understanding the role of oxygen vacancies in the water gas shift reaction on ceria-supported platinum catalysts"
J Vecchietti, A Bonivardi, W Xu, **D Stacchiola**, JJ Delgado, M Calatayud, S Collins
ACS Cat. **4**, 2088−2096 .....(2014)

104 - "Mechanistic study of CO titration on Cu_xO/Cu(111) (x <= 2) surfaces"
W An, A Baber, F Xu, M Soldemo, J Weissenrieder, **D Stacchiola**, P Liu
Chem. Cat. Chem. doi: 10.1002/cctc.201402177 .....(2014)

103 - "Reactivity and mass transfer of low dimensional catalysts"
J Weissenrieder, J Gustafson, **D Stacchiola**
Chem. Rec. doi: 10.1002/tcr.201402006 .....(2014)

102 - "Unraveling the dynamic nature of a CuO/CeO_2 nanocatalyst for CO oxidation in Operando: A new combined study of XANES (Fluorescence) and DRIFTS"
S Yao, K Mudiyanselage, W Xu, A Johnston-Peck, J Hanson, T Wu, **D Stacchiola**, J Rodriguez, H Zhao, K Beyer; K Chapman, P Chupas, A Martinez-Arias, R Si, T Bolin, W Liu, S Senanayake
ACS Cat. **4**, 1650−1661 .....(2014)

101 - "Stabilization of catalytically active Cu+ surface sites on titanium-copper mixed oxide films"
AE Baber, X Yang, HY Kim, K Mudiyanselage, M Soldemo, J Weissenrieder, SD Senanayake, A Al-Mahboob, JT Sadowski, J Evans, JA Rodriguez, P Liu, FM Hoffmann, JG Chen, **DJ Stacchiola***
Angew. Chem. Int. Ed. **53**, 5336 –5340 .....(2014)

100 - "The Activation of Gold and the Water-Gas Shift Reaction: Insights from Studies with Model Catalysts"
JA Rodriguez, SD Senanayake, **D Stacchiola**, P Liu, J Hrbek
Acc. Chem. Res. **47**, 773–782 ..... (2014)

99 - "EDTA-Ce(III) Modified Pt Vulcan XC-72 Catalyst Synthesis for Methanol Oxidation in Acid Solution"
R Guzmán-Blas, D Suazo-Dávila, CA Velez, CE Daza, **DJ Stacchiola**, K Sasaki, SD Senanayake, AC Johnston-Peck, R Molina, CR Cabrera
Electrocatalysis **5**, 50-61 ..... (2014)

98 - "Pulsed-reactant in situ studies of ceria/CuO catalysts using simultaneous XRD, PDF and DRIFTS measurements"
JC Hanson, R Si, W Xu, SD Senanayake, K Mudiyanselage, **D Stacchiola**, JA Rodriguez, H Zhao, KA Beyer, G Jennings, KW Chapman, PJ Chupas, A Martínez-Arias
Catalysis Today **229**, 64–71 ..... (2014)

97 - "In Situ Imaging of Cu_2O under Reducing Conditions: Formation of Metallic Fronts by Mass Transfer"
AE Baber, F Xu, F Dvorak, K Mudiyanselage, M Soldemo, J Weissenrieder, SD Senanayake, JT Sadowski, JA Rodriguez, V Matolín, MG White, **DJ Stacchiola***
J. Am. Chem. Soc. **135**, 16781–16784 ..... (**2013**)

96 - "Electronic Metal–Support Interactions and the Production of Hydrogen Through the Water-Gas Shift Reaction and Ethanol Steam Reforming: Fundamental Studies with Well-Defined Model Catalysts"
SD Senanayake, JA Rodriguez, **D Stacchiola**
Top. Catal. **56**, 1488-1498 ..... (2013)

95 - "Adsorption of hydrogen on the surface and sub-surface of Cu(111)"
K Mudiyanselage, Y Yang, FM Hoffmann, OJ Furlong, J Hrbek, MG White, P Liu, **DJ Stacchiola***
J. Chem. Phys. **139**, 044712 ..... (2013)

94 - "Probing Adsorption Sites for CO on Ceria"
K Mudiyanselage, HYou Kim, SD Senanayake, AE Baber, P Liu, **D Stacchiola***
PCCP **15**, 15856-15862 ..... (2013)

93 - "3D Honeycomb-Like Structured Graphene and Its High Efficiency as a Counter-Electrode Catalyst for Dye-Sensitized Solar Cells"
H Wang, K Sun, F Tao, **DJ Stacchiola**, YH Hu
Angew. Chem. Int. Ed. **52**, 9210-9214 ..... (2013)

92 - "'Assisted Deprotonation of Formic Acid on Cu(111) and Self Assembly of 1D Chains"
AE Baber, K Mudiyanselage, SD Senanayake, AB Vidal, KA Luck, ECH Sykes, P Liu, JA Rodriguez, **DJ Stacchiola***
PCCP **15**, 12291-12298 ..... (2013)

91 - "Steam Reforming of Ethanol on Ni/CeO_2: Reaction Pathway and Interaction between Ni and the CeO_2 Support"
W Xu, Z Liu, A Johnston-Peck, SD Senanayake, G Zhou, **D Stacchiola**, E Stach, JA Rodriguez
ACS Cat. **3**, 975–984 ..... (2013)

90 - "In-situ/Operando Studies for the Production of Hydrogen through the Water-Gas Shift on Metal Oxide/Catalysts"
JA Rodriguez, JC Hanson, **D Stacchiola**, S Senanayake
PCCP, Perspective **15**, 12004-12025 .....(2013)

89 - "Ethanol Photo Reaction on RuO_x/Ru Modified TiO_2(110)"
S Kundu, AB Vidal, A Nadeem, SD Senanayake, H Idriss, P Liu, JA Rodriguez, **D Stacchiola***
J. Phys. Chem. C **117**, 11149–11158 .....(2013)

88 - "Selective Molecular Adsorption in Sub-Nanometer Cages of a Cu_2O Surface Oxide"
K Mudiyanselage, W An, F Yang, P Liu, **DJ Stacchiola***
PCCP **15**, 10726-10731.....(2013)

87 - "Surface Reduction Mechanism of Cerium-Gallium Mixed Oxides with Enhanced Redox Properties"
J Vecchietti, S Collins, W Xu, L Barrio, **DJ Stacchiola**, M Calatayud-Antonino, F Tielens, JJ Delgado, A Bonivardi
J. Phys. Chem. C **117**, 8822–8831 .....(2013)

86 - "In situ time-resolved X-ray diffraction study of the synthesis of Mo_2C with different carburization agents"
HJ Guzmán, W Xu, **D Stacchiola**, G Vitale, CE Scott, JA Rodríguez, P Pereira-Almao
Can. J. Chem. **91**, 573-582 .....(2013)

85 - "Importance of the Metal-Oxide Interface in Catalysis: In-situ Studies by Ambient-Pressure XPS of the Water-Gas Shift Reaction"
K Mudiyanselage, SD Senanayake, L Feria, S Kundu, AE Baber, J Graciani, AB Vidal, S Agnoli, J Evans, R Chang, S Axnanda, Z Liu, JF Sanz, P Liu, JA Rodriguez, **DJ Stacchiola***
Angew. Chem. Int. Ed. **52**, 5101–5105 .....(2013)

84 - "Unique Properties of Ceria Nanoparticles Supported on Metals: Novel Inverse Ceria/Copper Catalysts for CO Oxidation and the Water-Gas Shift Reaction"
SD Senanayake, **D Stacchiola**, JA Rodriguez
Acc. Chem. Res. **46**, 1702-1711.....(2013)

83 - "Fundamental Studies of Well-Defined Surfaces of Mixed-Metal Oxides:
Special Properties of MO_x/TiO_2(110) {M = V, Ru, Ce, or W}"
D Stacchiola, SD Senanayake, P Liu, JA Rodriguez
Chem. Rev **113**, 4373–4390.....(2013)

82 - "NiO-MgO and CoO-MgO Thin-Film Solid Oxide Solutions on a Mo(100) Support: Formation, Reduction and Influence of the Support"
K Müller, D Torres, JB Park, P Liu, **DJ Stacchiola***, D Starr*
J. Phys. Chem. C **117**, 280–287.....(2013)

81 - "Reactivity and Morphology of Oxygen-Modified Gold Surfaces"
A Baber, D Torres, K Müller, M Nazzarro, P Liu, D Starr, **DJ Stacchiola***
J. Phys. Chem. C **116**, 18292-18299.....(**2012**)

80 - "Reversible graphene-metal contact through hydrogenation"
S Rajasekaran, S Kaya, F Abild-Pedersen, T Anniyev, F Yang,
D Stacchiola, H Ogasawara, A Nilsson
Phys. Rev. B **86**, 075417 .....(2012)

79 - "Adsorption and thermal decomposition of 2-octylthieno[3,4-b]thiophene on Au(111)"
JB Park, K Zong, IC Jeon, JR Hahn, **D Stacchiola**, D Starr, K Müller, J Noh
J. Colloid. Interf. Sci. **384**, 143–148 .....(2012)

78 - "Exploring the Structural and Electronic Properties of Pt/Ceria-Modified TiO2 and Its Photocatalytic Activity for Water Splitting under Visible Light"
S Kundu, J Ciston, SD Senanayake, DA Arena, E Fujita, **D Stacchiola**, L Barrio, RM Navarro, JLG Fierro, JA Rodriguez
J. Phys. Chem. C **116**, 14062–14070.....(2012)

77 - "In-situ Studies of CeO_2-supported Pt, Ru and Pt-Ru Alloy Catalysts for the Water-Gas Shift Reaction: Active Phases and Reaction Intermediates"
W Xu, R Si, SD Senanayake, J Llorca, H Idriss, **D Stacchiola**, JC Hanson, JA Rodriguez
J. of Catal. **291**, 117-126.....(2012)

76 - "A New type of Strong Metal-Support Interaction and the Production of H_2 through the Transformation of Water on Pt/CeO_2(111) and Pt/CeO_x/TiO_2(110) Catalysts"
A Bruix, JA Rodriguez, PJ Ramirez, SD Senanayake, J Evans, JB Park,
DJ Stacchiola, P Liu, J Hrbek, F Illas
J. Am. Chem. Soc. **134**, 8968−8974 .....(2012)

75 - "Nanopattering in CeO_x/Cu(111): A New Type of Surface Reconstruction and Enhancement of Catalytic Activity"
SD Senanayake, J Sadowski, J Evans, S Kundu, S Agnoli, F Yang,
D Stacchiola, JI Flege, J Hrbek, JA Rodriguez
J. Phys. Chem. Lett. C **3**, 839–843 .....(2012)

74 - "Special Chemical Properties of RuO_x Nanowires in RuO_x/TiO_2(110): Dissociation of Water and Hydrogen Production"
S Kundu, AB Vidal, F Yang, PJ Ramírez, SD Senanayake,
D Stacchiola, J Evans, P Liu, JA Rodriguez
J. Phys. Chem. C **116**, 4767−4773.....(2012)

73 - "CeO_2 - CuO_x Interactions and the Controlled Assembly of CeO_2(111) and CeO_2(100) Nanoparticles on an Oxidized Cu(111) Substrate"
F Yang, Y Choi, S Agnoli, P Liu, **D Stacchiola**, J Hrbek, J Rodriguez
J. Phys. Chem. C **115**, 23062–23066.....(**2011**)

72 - "Stabilization of carboxylate surface species on Pd(111)"
F Calaza, WT Tysoe, **D Stacchiola***
Ads. Sci. Technol. **29**, 603-611.....(2011)

71 - "An Infrared Spectroscopic and Temperature-programmed Desorption Study of 1,1-difluoroethylene on Clean and Hydrogen-covered Pd(111)"
Mahapatra, L Burkholder, F Calaza, **D Stacchiola**, WT Tysoe
*Ads. Sci. Technol.***29**, 595-602.....(2011)

70 - "Determining the Behavior of RuO_x Nanoparticles in Mixed-Metal Oxides: Structural and Catalytic Properties of $RuO_2/TiO_2(110)$ Surfaces"
F Yang, S Kundu, AB Vidal, J Graciani, PJ Ramirez, SD Senanayake, **D Stacchiola**, J Evans, P Liu, JF Sanz, JA Rodriguez
Angew. Chem. Int. Ed. **50**, 1-6 .....(2011)

69 - "Identification of 5-7 Defects in a Copper Oxide Surface"
F Yang, Y Choi, P Liu, **D Stacchiola**, J Hrbek, JA Rodriguez
J. Am. Chem. Soc. **133**, 11474-11477 .....(2011)

68 - "Catalysis and the nature of mixed-metal oxides at the nanometer level: Special properties of $MO_x/TiO_2(110)$ {M= V, W, Ce} surfaces"
JA Rodriguez, **D Stacchiola**
PCCP , Perspectives, **12** 9557-9565 .....(**2010**)

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