



Sarp Kaya received his BS and MS degrees in Chemical Engineering from Middle East Technical University in 2000 and 2002. He then received his PhD in Physical Chemistry in 2007 after completing his studies on ultrathin metal oxide layers at Fritz Haber Institute of the Max Plank Society and Humboldt University. During his post-doctoral studies at Stanford University (2007-2010) and following research activities as a staff scientist at SLAC National Accelerator Laboratory (2010-2014). He heavily utilized synchrotron radiation for surface and interface investigations. He has joined Koc University in 2013. He is interested in every aspects of chemical bond formation with surface and interfaces.

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Nationality: Turkish
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ACADEMIC RESEARCH ACTIVITIES

06/2013 – Assistant Professor, Department of Chemistry, Koc University, Istanbul, Turkey
09/2011 – .06/2014 Scientist, Joint Center of Artificial Photosynthesis (JCAP), USA
09/2010 – 06/2014 Scientist, SUNCAT Center for Interface Science and Catalysis, SLAC National Accelerator Laboratory, Menlo Park, CA, USA
09/2007 – 08/2010 Postdoctoral fellow, SLAC National Accelerator Laboratory, Menlo Park, CA, USA
Geological and Environmental Sciences (GES), Stanford University, USA
09/2002 – 06/2003 Teaching assistant, Faculty of Engineering and Natural Sciences, Sabanci University, Istanbul, Turkey
10/2000 – 10/2001 Research assistant, Kale Porcelain Company, Istanbul, Turkey

EDUCATION

07/2003 – 08/2007 Ph.D, Department of Chemical Physics (Prof. Dr. Hans-Joachim Freund), Fritz Haber Institute of the Max Planck Society and Physical and Theoretical Chemistry (Prof. Dr. Klaus Rademann), Department of Chemistry, Humboldt University, Berlin, Germany
“Structural and Catalytic Investigations on Vanadium Oxide Nanoparticles Supported on Silica Films Grown on a Mo(112) Substrate”
09/2002 – 06/2003 Faculty of Engineering and Natural Sciences, Sabanci University, Istanbul, Turkey
06/2000 – 08/2002 MS, Department of Chemical Engineering (Prof. Dr. Deniz Üner), Middle East Technical University, Ankara, Turkey
“CO Oxidation on Alumina Supported Pd-Pt Mono- and Bi-metallic Catalysts: Temperature Hysteresis”
Received Hasan Orbey Award
10/1995 – 06/2000 BS, Department of Chemical Engineering, Middle East Technical University, Ankara, Turkey

RESEARCH INTERESTS

Heterogeneous catalysis, surface and interface chemistry
Ultra thin metal and metal oxide films
Hydrogen production and storage
Fuel cells and artificial photosynthesis
Physical and chemical properties of water, confined water
Geochemical aspects of toxic material release in ground water
X-ray and vibrational spectroscopy, scanning probe microscopy

EXPERIMENTAL APPROACHES

Core level spectroscopy X-ray photoelectron spectroscopy, X-ray absorption spectroscopy, X-ray emission spectroscopy
Microscopy Scanning probe microscopy
IR spectroscopy Reflection absorption IR spectroscopy, attenuated total reflection IR spectroscopy

Others

Electron diffraction, XRD, XRF, temperature programmed desorption, thermal gravimetry, gas chromatography, scanning electron microscopy

PUBLICATIONS

1. Operando X-ray photoelectron spectroscopy studies of aqueous electrocatalytic systems
H. Ogasawara, S. Kaya, A. Nilsson, *Topics in Catal.*, 59, 439 (2016)
2. Optical laser-induced CO desorption from Ru(0001) monitored with a Free-Electron X-ray laser: DFT prediction and X-ray confirmation of a precursor state
H. Öberg, J. Gladh, M. Dell'Angela, T. Anniyev, M. Beye, R. Coffee, A. Föhlisch, T. Katayama, S. Kaya, J. LaRue, A. Møgelhøj, D. Nordlund, H. Ogasawara, W. F. Schlotter, J. A. Sellberg, F. Sorgenfrei, J. J. Turner, M. Wolf, W. Wurth, H. Öström, A. Nilsson, J. K. Nørskov, L. G. M. Pettersson, *Surf. Sci.* 640, 80 (2015)
3. Low barrier carbon induced CO dissociation on stepped Cu
M. L. Ng, F. Abild-Pedersen, S. Kaya, F. Mbuga, H. Ogasawara, and A. Nilsson, *Phys. Rev. Lett.*, 114, 246101 (2015)
4. Strong influence of coadsorbate interaction on CO desorption dynamics on Ru(0001) probed by ultrafast X-ray spectroscopy and ab initio simulations
H. Xin, J. LaRue, H. Öberg, M. Beye, M. Dell'Angela, J. J. Turner, J. Gladh, M. L. Ng, J. A. Sellberg, S. Kaya, G. Mercurio, F. Hieke, D. Nordlund, W. F. Schlotter, G. L. Dakovski, M. P. Minitti, A. Föhlisch, M. Wolf, W. Wurth, H. Ogasawara, J. K. Nørskov, H. Öström, L. G. M. Pettersson, A. Nilsson, and F. Abild-Pedersen, *Phys. Rev. Lett.*, 114, 156101 (2015)
5. Vacuum space charge effects in sub-picosecond soft X-ray photoemission on a molecular adsorbate layer
M. Dell'Angela, T. Anniyev, M. Beye, R. Coffee, A. Föhlisch, J. Gladh, S. Kaya, T. Katayama, O. Krupin, A. Nilsson, D. Nordlund, W. F. Schlotter, J. A. Sellberg, F. Sorgenfrei, J. J. Turner, H. Öström, H. Ogasawara, M. Wolf, and W. Wurth, *Struct. Dyn.*, 2, 025101 (2015)
6. Probing the transition state region in catalytic CO oxidation on Ru
H. Öström, H. Öberg, H. Xin, J. LaRue, M. Beye, M. Dell'Angela, J. Gladh, M. L. Ng, J. A. Sellberg, S. Kaya, G. Mercurio, D. Nordlund, M. Hantschmann, F. Hieke, D. Kühn, W. F. Schlotter, G. L. Dakovski, J. J. Turner, M. P. Minitti, A. Mitra, S. P. Moeller, A. Föhlisch, M. Wolf, W. Wurth, M. Persson, J. K. Nørskov, F. Abild-Pedersen, H. Ogasawara, L. G. M. Pettersson, A. Nilsson, *Science*, 347, 978 (2015)
7. Direct observation of the dealloying process of a platinum-yttrium nanoparticle fuel cell cathode and its oxygenated species during the oxygen reduction reaction
P. Malacrida, H. Sanchez Casalongue, F. Masini, S. Kaya, P. Hernández-Fernández, D. Deiana, H. Ogasawara, I. E. L. Stephens, A. Nilsson, I. Chorkendorff, *Phys. Chem. Chem. Phys.*, 17, 28121 (2015)
8. Determination of the surface electronic structure of Fe₃O₄(111) by soft x-ray spectroscopy
S. Kaya, H. Ogasawara, and A. Nilsson, *Catal. Today*, 240B, 184 (2015)
9. Operando characterization of an amorphous molybdenum sulfide nanoparticle catalyst during the hydrogen evolution reaction
H. Sanchez Casalongue, J. Benck, C. Tsai, R. K. B. Karlsson, S. Kaya, L. G. M. Pettersson, F. Abild-Pedersen, J. K. Nørskov, H. Ogasawara, T. Jaramillo, and A. Nilsson, *J. Phys. Chem. C*, 118, 29252 (2014)
10. Comparison of x-ray absorption spectra between water and ice: new ice data with low pre-edge absorption cross-section
J. A. Sellberg, S. Kaya, V. H. Segtnan, C. Chen, T. Tyliczszak, H. Ogasawara, D. Nordlund, L. G. M. Pettersson, and A. Nilsson, *J. Chem. Phys.*, 141, 034507 (2014)
11. In situ observation of surface species on iridium oxide nanoparticles during the oxygen evolution reaction
H. Sanchez Casalongue, M. L. Ng, S. Kaya, D. Friebel, H. Ogasawara, and A. Nilsson, *Angew. Chem. Int. Ed.*, 53, 7169 (2014)

12. Different reactivity of the various platinum oxides and chemisorbed oxygen in CO oxidation on Pt(111)
D. J. Miller, H. Sanchez Casalongue, H. Bluhm, H. Ogasawara, A. Nilsson, and S. Kaya, *J. Am. Chem. Soc.*, 136, 6340 (2014)
13. Direct observation of the oxygenated species during oxygen reduction on a Pt fuel cell cathode
H. Sanchez Casalongue, S. Kaya, V. Viswanathan, D. J. Miller, D. Friebe, H. A. Hansen, J. K. Nørskov, A. Nilsson, and H. Ogasawara, *Nat. Commun.*, 4, 2817 (2013)
14. Electronic structure effects in catalysis probed by X-ray and electron spectroscopy
S. Kaya, D. Friebe, H. Ogasawara, T. Anniyev, A. Nilsson, *J. Electron Spectrosc. Rel. Phenom.* 190, 113 (2013)
15. Interlayer carbon bond formation induced by hydrogen adsorption in few-layer supported graphene
S. Rajasekaran, F. Abild-Pedersen, H. Ogasawara, A. Nilsson, S. Kaya, *Phys. Rev. Lett.*, 111, 085503 (2013)
16. Stability of Pt-modified Cu(111) in the presence of oxygen and its implication on the overall electronic structure
H. Öberg, T. Anniyev, A. Vojvodic, S. Kaya, H. Ogasawara, D. Friebe, D. J. Miller, D. Nordlund, U. Bergmann, M. P. Ljungberg, F. Abild-Pedersen, A. Nilsson, L. G. M. Pettersson, *J. Phys. Chem. C*, 117, 16371(2013)
17. Selective ultrafast probing of transient hot chemisorbed and precursor states of CO on Ru(0001)
M. Beye, T. Anniyev, R. Coffee, M. Dell'Angela, A. Föhlisch, J. Gladh, T. Katayama, S. Kaya, O. Krupin, A. Møgelhøj, A. Nilsson, D. Nordlund, J. K. Nørskov, H. Öberg, H. Ogasawara, L.G.M. Pettersson, W. F. Schlotter, J. A. Sellberg, F. Sorgenfrei, J. J. Turner, M. Wolf, W. Wurth, H. Öström, *Phys. Rev. Lett.* 110, 186101 (2013)
18. Ultrafast soft x-ray emission spectroscopy of surface adsorbates using an x-ray free electron laser
T. Katayama, T. Anniyev, M. Beye, R. Coffee, M. Dell'Angela, A. Föhlisch, J. Gladh, S. Kaya, O. Krupin, A. Nilsson, D. Nordlund, W. F. Schlotter, J. A. Sellberg, F. Sorgenfrei, J. J. Turner, M. Wolf, W. Wurth, H. Öström, H. Ogasawara, *J. Electron Spectrosc. Rel. Phenom.* 187, 9 (2013)
19. Identification of the electronic structure differences between polar isostructural FeO and CoO films by core level soft x-ray spectroscopy
S. Kaya, T. Anniyev, H. Ogasawara, A. Nilsson, *Phys. Rev. B*, 87, 205115 (2013)
20. Real-time observation of surface bond breaking with an x-ray laser
M. Dell'Angela, T. Anniyev, M. Beye, R. Coffee, A. Föhlisch, J. Gladh, T. Katayama, S. Kaya, O. Krupin, J. LaRue, A. Møgelhøj, D. Nordlund, J. K. Nørskov, H. Öberg, H. Ogasawara, H. Öström, L. G. M. Pettersson, W. F. Schlotter, J. A. Sellberg, F. Sorgenfrei, J. J. Turner, M. Wolf, W. Wurth, A. Nilsson, *Science*, 339, 1302 (2013)
21. Highly compressed two-dimensional form of water at ambient conditions
S. Kaya, D. Schlesinger, S. Yamamoto, J. T. Newberg, H. Bluhm, H. Ogasawara, T. Kendelewicz, G. E. Brown Jr., L. G. M. Pettersson, A. Nilsson, *Nature Scientific Rep.*, 3, 1074 (2013)
22. X-ray photoemission and density functional theory study of the interaction of water vapor with the Fe₃O₄(001) surface at near-ambient conditions
T. Kendelewicz, S. Kaya, J. T. Newberg, H. Bluhm, N. Mulakaluri, W. Moritz, M. Scheffler, A. Nilsson, R. Pentcheva, G. E. Brown, Jr., *J. Phys. Chem. C*, 117, 2719 (2013)
23. Ambient-pressure photoelectron spectroscopy for heterogeneous catalysis and electrochemistry
S. Kaya, H. Ogasawara, L. A. Naslund, J.-O. Forsell, H. Sanchez Casalongue, D. J. Miller, A. Nilsson, *Catal. Today*, 205, 101 (2013)
24. Reversible graphene-metal contact through hydrogenation

- S. Rajasekaran, S. Kaya, F. Abild-Pedersen, T. Anniyev, F. Yang, D. Stacchiola, H. Ogasawara, and A. Nilsson, *Phys. Rev. B*, 86, 075417 (2012)
25. Tuning the metal-adsorbate chemical bond through ligand effect on Pt-subsurface alloys
T. Anniyev, S. Kaya, S. Rajasekaran, H. Ogasawara, D. Nordlund, A. Nilsson, *Angew. Chem. Int. Ed.*, 51, 7724 (2012)
26. Probing substrate effects in the carbon-projected band structure of graphene on Pt(111) through resonant inelastic x-ray scattering
S. Rajasekaran, S. Kaya, T. Anniyev, H. Ogasawara, A. Nilsson, *Phys. Rev. B*, 85, 045419 (2012)
27. Oxidation of Pt(111) under near-ambient conditions
D. J. Miller, H. Öberg, S. Kaya, H. Sanchez Casalongue, D. Friebel, T. Anniyev, H. Bluhm, H. Ogasawara, L. G. M. Pettersson and A. Nilsson, *Phys. Rev. Lett.*, 107, 195502 (2011)
28. Auto-catalytic surface hydroxylation of MgO(100) terrace sites observed under ambient conditions
J. T. Newberg, D. E. Starr, S. Yamamoto, S. Kaya, T. Kendelewicz, E. R. Mysak, S. Porsgaard, M. B. Salmeron, G. E. Brown Jr., A. Nilsson, and H. Bluhm, *J. Phys. Chem. C*, 115, 12864 (2011)
29. Formation of hydroxyl and water layers on MgO films studied with ambient pressure XPS
J. T. Newberg, D. E. Starr, S. Yamamoto, S. Kaya, T. Kendelewicz, E. R. Mysak, S. Porsgaard, M. B. Salmeron, G. E. Brown Jr., A. Nilsson, and H. Bluhm, *Surf. Sci.*, 605, 89 (2011).
30. Lattice-strain control of the activity in dealloyed core-shell fuel cell catalysts
P. Strasser, S. Koh, T. Anniyev, J. Greeley, K. More, C. Yu, Z. Liu, S. Kaya, D. Nordlund, H. Ogasawara, M. F. Toney, and A. Nilsson, *Nature Chemistry*, 2, 454 (2010).
31. X-ray absorption spectroscopy and X-ray Raman scattering of water and ice; an experimental view
A. Nilsson, D. Nordlund, I. Waluyo, N. Huang, H. Ogasawara, S. Kaya, U. Bergmann, L. Naeslund, H. Ostrom, P. Wernet, K. J. Andersson, T. Schiros, and L. G. M. Pettersson, *J. Electron Spectrosc. Rel. Phenom.*, 177, 99 (2010).
32. On the structure sensitivity of CO oxidation on alumina supported Pd-Pt
S. Kaya, E. Erunal, R. Shaltaf, S. Ellialtioglu, and D. Uner, *Turk. J. Chem.*, 33, 11 (2009).
33. Formation of one-dimensional molybdenum oxide on Mo(112)
S. Kaya, J. Weissenrieder, D. Stacchiola, T. K. Todorova, M. Sierka, J. Sauer, S. Shaikhutdinov, and H.-J. Freund, *Surface Science*, 602, 3338 (2008).
34. When an encapsulating oxide layer promotes reaction on noble metals: Dewetting and in situ formation of an "inverted" FeO_x/Pt catalyst
Y. Sun, Z. Qin, M. Lewandowski, S. Kaya, S. Shaikhutdinov, and H.-J. Freund, *Catal. Lett.*, 126, 31 (2008).
35. Selectivity in methanol oxidation as studied on model systems involving vanadium oxides
Y. Romanyshyn, S. Guimond, H. Kuhlenbeck, S. Kaya, R. P. Blum, H. Niehus, S. Shaikhutdinov, V. Simic-Milosevic, N. Nilius, H.-J. Freund, M. V. Ganduglia-Pirovano, R. Fortrie, J. Doebler, and J. Sauer, *Topics in Catal.*, 50, 106 (2008).
36. Growth of stoichiometric subnanometer silica films
D. J. Stacchiola, M. Baron, S. Kaya, J. Weissenrieder, S. Shaikhutdinov, and H.-J. Freund, *Applied Physics Letters*, 92, 011911 (2008).
37. CO Oxidation over mono and bi-metallic sequentially impregnated Pd-Pt catalysts
S. Kaya and D. Uner, *Turkish Journal of Chemistry*, 32, 645 (2008).
38. On the geometrical and electronic structure of an ultra-thin crystalline silica film grown on Mo(112)
S. Kaya, M. Baron, D. Stacchiola, J. Weissenrieder, S. Shaikhutdinov, T. K. Todorova, M. Sierka, J. Sauer, and H. -J. Freund, *Surface Science*, 601, 4849 (2007).
39. Structure, thermal stability, and CO adsorption properties of Pd nanoparticles supported on an ultra-thin SiO₂ film

- J. Lu, J. Weissenrieder, S. Kaya, H. - Gao, S. Shaikhutdinov, and H. -J. Freund, *Surf. Rev. Lett.*, 14, 927 (2007).
40. Oxygen adsorption on Mo(112) surface studied by ab initio genetic algorithm and experiment
M. Sierka, T. K. Todorova, J. Sauer, S. Kaya, D. Stacchiola, J. Weissenrieder, S. Shaikhutdinov, H. J. Freund, *Journal of Chemical Physics*, 126, 234710 (2007).
41. Ice-assisted preparation of silica-supported vanadium oxide particles
S. Kaya, Y.-N. Sun, J. Weissenrieder, D. Stacchiola, S. Shaikhutdinov, H. J. Freund, *Journal Physical Chemistry C*, 111, 5337 (2007).
42. Formation of an ordered ice layer on a thin silica film
S. Kaya, J. Weissenrieder, D. Stacchiola, S. Shaikhutdinov, H. J. Freund, *Journal Physical Chemistry C*, 111, 759 (2007).
43. Synthesis and structure of ultrathin aluminosilicate films
D. Stacchiola, S. Kaya, J. Weissenrieder, H. Kuhlenbeck, S. Shaikhutdinov, H. J. Freund, M. Sierka, T. K. Todorova, J. Sauer, *Angew. Chem.-Int. Ed.*, 45, 7636 (2006).
44. Synthese und struktur eines ultradünnen alumino-silikatfilms
D. Stacchiola, S. Kaya, J. Weissenrieder, H. Kuhlenbeck, S. Shaikhutdinov, H. J. Freund, M. Sierka, T. K. Todorova, J. Sauer, *Angewandte Chemie*, 118, 7798 (2006).
45. Vanadium oxide surfaces and supported vanadium oxide nanoparticles
S. Guimond; M. Abu Haija; S. Kaya; J. Lu; J. Weissenrieder; S. Shaikhutdinov; H. Kuhlenbeck; H. J. Freund; J. Dobler; J. Sauer, *Topics in Catalysis*, 38, 117 (2006).
46. Interplay between theory and experiment in the quest for silica with reduced dimensionality grown on a Mo(112) surface
M. Sierka; T. K. Todorova; S. Kaya; D. Stacchiola; J. Weissenrieder; J. Lu; H. Gao; S. Shaikhutdinov; H. J. Freund; J. Sauer, *Chemical Physics Letters*, 424, 115 (2006).
47. Low temperature CO induced growth of Pd supported on a monolayer silica film
J. L. Lu; S. Kaya; J. Weissenrieder; H. J. Gao; S. Shaikhutdinov; H. J. Freund, *Surface Science*, 600, L153 (2006).
48. Atomic structure of a thin silica film on a Mo(112) substrate: A combined experimental and theoretical study
T. K. Todorova; M. Sierka; J. Sauer; S. Kaya; J. Weissenrieder; J. L. Lu; H. J. Gao; S. Shaikhutdinov; H. J. Freund, *Physical Review B*, 73, 165414 (2006).
49. Formation of one-dimensional crystalline silica on a metal substrate
J. L. Lu; S. Kaya; J. Weissenrieder; T. K. Todorova; M. Sierka; J. Sauer; H. J. Gao; S. Shaikhutdinov; H. J. Freund, *Surface Science*, 600, L164 (2006).
50. Atomic structure of a thin silica film on a Mo(112) substrate: A two-dimensional network of SiO₄ tetrahedra
J. Weissenrieder; S. Kaya; J. L. Lu; H. J. Gao; S. Shaikhutdinov; H. J. Freund; M. Sierka; T. K. Todorova; J. Sauer, *Physical Review Letters*, 95, 076103 (2005).
51. CO adsorption study of V/SiO₂: the low vanadium coverage regime
B. Immaraporn; N. Magg; S. Kaya; J. Wang; M. Baumer; H. J. Freund, *Chemical Physics Letters*, 392, 127 (2004).
52. Harmonization of empirical information on the de-NO_x catalysts for the comparison of the catalyst performance through reaction modelling
D. Uner, S. Kaya, *Studies in Surface Science and Catalysis*, 133, 453 (2001).

SUBMITTED MANUSCRIPTS

1. Ultrafast Observation of Activated Chemisorbed Oxygen
M. Beye, H. Öberg, H. Xin, G. L. Dakovski, M. Dell'Angela, A. Föhlisch, J. Gladh, M. Hantschmann, F. Hieke, S. Kaya, D. Kühn, J. LaRue, G. Mercurio, M. P. Minitti, A. Mitra, S. P. Möller, M. L. Ng, A. Nilsson, D. Nordlund, J. Nørskov, H. Öström, H. Ogasawara, M. Persson, W. F. Schlotter, J. A. Sellberg, M. Wolf, F. Abild-Pedersen, L. G. M. Pettersson, and W. Wurth, *submitted* (2015).

MANUSCRIPTS IN PREPARATION

-
1. Arsenic oxidation/reduction processes redox couple with magnetite and hematite
S. Kaya, T. Kendelewicz, J. T. Newberg, H. Bluhm, G. E. Brown Jr., and A. Nilsson, *in preparation* (2015)
 2. Hydrogen interaction with graphite, graphene and carbon nanotubes: electronic, geometric structure changes and storage applications
S. Rajasekaran, H. Ogasawara, A. Nilsson, S. Kaya, *in preparation* (2015)
 3. Electronic structures of Pt surface oxides formed on Pt(111)
H. Öberg, D. J. Miller, S. Kaya, M. P. Ljungberg, H. Ogasawara, A. Nilsson, and L. G. M. Pettersson, *in preparation* (2015)
 4. Electronic structure mapping of Mn doped TiO₂ in water ambient
M. Minohara, Y. Hikita, H. Ogasawara, H. Hwang, A. Nilsson, and S. Kaya, *in preparation* (2015)
 5. Surface hydration of LaAlO₃ and its impact on its interface with SrTiO₃
Y. Xie, S. Kaya, Y. Hikita, C. Bell, H. Ogasawara, H. Hwang, A. Nilsson, *in preparation* (2015)
 6. Probing strain and ligand effect induced d-band modifications by vibrational spectroscopy
T. Anniyev, H. Ogasawara, and S. Kaya, *in preparation* (2015)

CONFERENCES AND WORKSHOPS PARTICIPATED

1. Energy Research at Koc University
Conference on Turkish Universities in the European Research Area (ERA)
Ankara, Turkey, October 8-9, 2015
S. Kaya
2. Revealing surface species on electrochemical cell electrodes in operando
mESC-IS 2015, Int. Symposium on Materials for Energy Storage and Conversion, Ankara, Turkey, September 7-9, 2015
S. Kaya
3. Hydrogenating single and few layer graphene: A simple route towards diamond
EMN Istanbul Meeting, Energy Materials Nanotechnology, Istanbul, Turkey, July 1-4, 2015
S. Kaya
4. Interaction of graphene films with hydrogen
1st National Carbon Conference (1. Ulusal Karbon Konferansı), Istanbul, Turkey, 12-13 March, 2015
N. Solati, S. Kaya
5. Water on surfaces
18th National Liquid Phase Symposia (18. Ulusal Sıvihal Sempozyumu), Istanbul, Turkey, 5-6 December, 2014
S. Kaya
6. Hydrogenating single and few layer supported graphene
Graphene and Related Technologies from Laboratory to Industry, Istanbul, Turkey, 13-15 October, 2014
S. Kaya
7. Local structure identification and activity determination of various surface oxides formed on Pt(111)
European Conference on Surface Science, ECOSS 30, Antalya, Turkey, September 1-5, 2014
S. Kaya, D. J. Miller, H. Oberg, H. Sanchez Casalongue, H. Ogasawara, H. Bluhm, L. G. M. Pettersson, A. Nilsson
8. An unusual CO dissociation on Cu(211) at ambient pressures

- European Conference on Surface Science, ECOSS 30, Antalya, Turkey, September 1-5, 2014
M. L. Ng, S. Kaya, F. Mbuga, H. Ogasawara, A. Nilsson
9. APXPS studies on electrochemical water splitting
248th American Chemical Society (ACS) Spring Meeting, San Francisco, USA, August 10-14, 2014.
H. Sanchez Casalongue, M. L. Ng, H. Ogasawara, S. Kaya, A. Nilsson
10. Reactivity of Pt surface oxides formed on Pt(111)
246th American Chemical Society (ACS) Spring Meeting, Indianapolis, USA, September 8-12, 2013.
S. Kaya, D. J. Miller, H. Sanchez Casalongue, H. Bluhm, H. Ogasawara, A. Nilsson
11. Factors controlling chemical reactions at environmental interfaces
246th American Chemical Society (ACS) Spring Meeting, Indianapolis, USA, September 8-12, 2013.
G. E. Brown Jr., T. Kendelewicz, S. Kaya, S. Yamamoto, J. T. Newberg, H. Bluhm, A. Nilsson, R. Pentcheva, Y. G. Wang, P. Eng, J. R. Bargar, A. C. Cismasu, C. Levard, F. M. Michel
12. Identifying the surfaces of running electrochemical cells
Solar Energy for World Peace, Istanbul, Turkey, August 17-19 2013
S. Kaya, H. Sanchez Casalongue, M. L. Ng, H. Ogasawara, J. Benck, T. Jaramillo, A. Nilsson
13. In-operando study of PEM fuel cells using ambient pressure photoemission
221st Electrochemical Society (ECS) Meeting, Seattle, USA, May 6-10, 2012.
H. Sanchez Casalongue, S. Kaya, H. Ogasawara, Daniel Miller, Daniel Friebe, A. Nilsson
14. Ambient pressure photoemission investigations on PEM fuel cells in operando conditions
4th International Congress on Operando Spectroscopy, Brookhaven, USA, April 29-May 3, 2012
S. Kaya, H. Sanchez Casalongue, D. J. Miller, H. Ogasawara, A. Nilsson
15. Hydrogen adsorption induced structural and electronic changes in graphene grown on metal substrate
American Physical Society (APS) March Meeting, Boston, USA, February 27-March 2, 2012
S. Rajasekaran, S. Kaya, T. Anniyev, H. Ogasawara, A. Nilsson, F. Yang, D. Stacchiola, F. Abild-Pedersen, J. K. Nørskov.
16. Hydrogenation induced graphene-metal contact - observation of states at Fermi level
American Vacuum Society (AVS) 58th International Symposium & Exhibition, Tennessee, USA, October 30-November 4, 2011.
S. Rajasekaran, S. Kaya, T. Anniyev, F. Yang, D. Stacchiola, H. Ogasawara, A. Nilsson.
17. Core Level Spectroscopy Applications in Soft X-ray Regime
TAC-Synchrotron Radiation (TAC-SR) Workshop, Dogus University, Istanbul, Turkey, July 4-6, 2011.
S. Kaya
18. Electronic structure effect in modified reactivity of Pt-3d-Pt(111) bimetallic surface alloys
241st American Chemical Society (ACS) Spring Meeting, Anaheim, USA, March 27-31, 2011.
T. Anniyev, S. Kaya, H. Ogasawara, D. Nordlund, A. Nilsson
19. Ultrafast core level shifts in a laser excited oxygen-covered Ru surface
241st American Chemical Society (ACS) Spring Meeting, Anaheim, USA, March 27-31, 2011.

- T. Anniyev, M. Beye, R. Coffee, M. Dell'Angela, A. Föhlisch, J. Gladh, T. Katayama, S. Kaya, O. Krupin, A. Nilsson, D. Nordlund, Ogasawara, H. Öström, W. F. Schlotter, J. A. Sellberg, F. Sorgenfrei, J. Turner, M. Wolf, W. Wurth
20. Ultrafast dynamics in the bonding orbitals while CO desorbs from a Ru surface
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21. In-situ characterization of arsenic on iron oxide surfaces
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- S. Kaya, T. Kendelewicz, F. Mbuga, J. T. Newberg, H. Bluhm, G. E. Brown Jr., A. Nilsson
22. Structure of water on BaF₂(111) at ambient conditions
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- S. Kaya, S. Yamamoto, H. Ogasawara, J. T. Newberg, H. Bluhm, A. Nilsson
23. Electronic structure effect in modified reactivity of Pt/Cu(111)
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- T. Anniyev, S. Kaya, H. Ogasawara, D. Nordlund, S. Koh, Z. Liu, C. Yu, J. Greeley, K. More, M. Toney, P. Strasser, A. Nilsson
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- T. Anniyev, S. Kaya, H. Ogasawara, S. Koh, P. Strasser, M. Toney, A. Nilsson
26. In situ XPS study of H₂O and CO₂ adsorption on MgO(100) films under ambient conditions
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- J. Newberg, D. Starr, E. Mysak, S. Yamamoto, S. Kaya, T. Kendelewicz, S. Porsgaard, M. Salmeron, G. Brown, Jr., A. Nilsson, H. Bluhm
27. Photoemission study of the reaction of Fe₃O₄(100) with water at near ambient conditions
19th Annual VM Goldschmidt Conference, Davos, Switzerland, June 21-26, 2009
T. Kendelewicz, S. Kaya, J. T. Newberg, H. Bluhm, A. Nilsson, G. E. Brown Jr., R. Pentcheva, W. Moritz
28. Electronic structure effect in modified reactivity of Pt/Cu(111)
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T. Anniyev, S. Kaya, D. Friebel, H. Ogasawara, A. Nilsson
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- S. Kaya, S. Yamamoto, J. T. Newberg, H. Bluhm, and A. Nilsson
30. The reactive uptake of water and CO₂ on MgO(100) monitored by ambient pressure XPS
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31. Characterization of vanadium oxide nanoparticles on well-ordered silica films
5th the International Workshop on Oxide Surfaces (IWOX-V), Lake Tahoe, USA, January 7-12, 2007.
S. Kaya, J. Weissenrieder, D. Stacchiola, S. Shaikhutdinov, H.-J. Freund
 32. Preparation and atomic structure of well-ordered silica and aluminosilicate films
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D. Stacchiola, S. Kaya, J.-L. Lu, J. Weissenrieder, S. Shaikhutdinov, H.-J. Freund
 33. Formation of ordered water layer on a thin silica film
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S. Kaya, Y. Sun, J. Weissenrieder, D. Stacchiola, S. Shaikhutdinov, H.-J. Freund.
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5. Brazilian-German Workshop on Applied Surface Science, Mangaratiba, Brazil, April 3-9, 2006.
S. Kaya, J.-L. Lu, J. Weissenrieder, D. Stacchiola, S. Shaikhutdinov, H.-J. Freund
 35. Pd particles on atomically flat SiO₂ films: Nucleation, growth and thermal stability
EUROPACAT-7, Sofia, Bulgaria, August 28 – September 01, 2005.
S. Kaya, J.-L. Lu, J. Weissenrieder, Sh. K. Shaikhutdinov, H.-J. Freund
 36. Atomic structure of a thin silica film on a Mo(112) substrate
13th International Congress on Thin Films (ICTF 13/ACSIN 8), Stockholm, Sweden, June 19-23, 2005.
J. Weissenrieder, S. Kaya, J. Lu, Sh. K. Shaikhutdinov, H.-J. Freund
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Symposium of the Collaborative Research Centre 546, Berlin, Germany, March 22-24, 2004.
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