

# Steven L Bernasek

## List of Publications by Year in descending order

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58  
papers

2,019  
citations

361296

20  
h-index

243529

44  
g-index

76  
all docs

76  
docs citations

76  
times ranked

3247  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Physisorption and Chemisorption of Alkanethiols and Alkyl Sulfides on Au(111). <i>Journal of Physical Chemistry B</i> , 1998, 102, 3456-3465.  | 1.2  | 418       |
| 2  | Understanding Odd-Even Effects in Organic Self-Assembled Monolayers. <i>Chemical Reviews</i> , 2007, 107, 1408-1453.   | 23.0 | 351       |
| 3  | Surface Characterization and Modification of Indium Tin Oxide in Ultrahigh Vacuum. <i>Journal of the American Chemical Society</i> , 2000, 122, 1808-1809.   | 6.6  | 127       |
| 4  | Stabilization of Self-Assembled Monolayers of Carboxylic Acids on Native Oxides of Metals. <i>Journal of the American Chemical Society</i> , 1997, 119, 259-262.   | 6.6  | 100       |
| 5  | Enhanced Bonding of Alkanephosphonic Acids to Oxidized Titanium Using Surface-Bound Alkoxyzirconium Complex Interfaces. <i>Langmuir</i> , 1999, 15, 8929-8933.   | 1.6  | 96        |
| 6  | Dynamic Oxygen on Surface: Catalytic Intermediate and Coking Barrier in the Modeled CO <sub>2</sub> Reforming of CH <sub>4</sub> on Ni (111). <i>ACS Catalysis</i> , 2016, 6, 4330-4339.                                 | 5.5  | 93        |
| 7  | Formation, Electronic Structure, and Defects of Ni Substituted Spinel Cobalt Oxide: a DFT+U Study. <i>Journal of Physical Chemistry C</i> , 2016, 120, 14892-14898.  | 1.5  | 86        |
| 8  | Characterization of Self-Assembled Organic Films Using Differential Charging in X-ray Photoelectron Spectroscopy. <i>Langmuir</i> , 2006, 22, 4649-4653.   | 1.6  | 56        |
| 9  | In-situ characterization by Near-Ambient Pressure XPS of the catalytically active phase of Pt/Al <sub>2</sub> O <sub>3</sub> during NO and CO oxidation. <i>Applied Catalysis B: Environmental</i> , 2018, 220, 506-511. | 10.8 | 46        |
| 10 | Surface Oxidation of Bi <sub>2</sub> (Te,Se) <sub>3</sub> Topological Insulators Depends on Cleavage Accuracy. <i>Chemistry of Materials</i> , 2016, 28, 35-39.  | 3.2  | 43        |
| 11 | In-situ studies of oxidation/reduction of copper in Cu-CHA SCR catalysts: Comparison of fresh and SO <sub>2</sub> -poisoned catalysts. <i>Applied Catalysis B: Environmental</i> , 2020, 269, 118722.                    | 10.8 | 42        |
| 12 | Hydrogen-Bonding versus van der Waals Interactions in Self-Assembled Monolayers of Substituted Isophthalic Acids. <i>Langmuir</i> , 2010, 26, 18155-18161.   | 1.6  | 40        |
| 13 | Oxygen Deficiency and Reactivity of Spinel NiCo <sub>2</sub> O <sub>4</sub> (001) Surfaces. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3929-3937.   | 1.5  | 39        |
| 14 | Complexity in the Self-Assembly of Bifunctional Molecules on HOPG: The Influence of Solvent Functionality on Self-Assembled Structures. <i>Langmuir</i> , 2007, 23, 3513-3522.   | 1.6  | 35        |
| 15 | Structure of the NiFe <sub>2</sub> O <sub>4</sub> (001) surface in contact with gaseous O <sub>2</sub> and water vapor. <i>Surface Science</i> , 2015, 640, 73-79.   | 0.8  | 30        |
| 16 | Diode laser absorption study of internal energies of CO <sub>2</sub> produced from catalytic CO oxidation. <i>Journal of Chemical Physics</i> , 1996, 104, 7719-7728.  | 1.2  | 29        |
| 17 | Surface Modification of Indium Tin Oxide by Phenoxytin Complexes. <i>Langmuir</i> , 2001, 17, 948-952.   | 1.6  | 24        |
| 18 | The internal energy of CO <sub>2</sub> produced from catalytic oxidation of CO by NO. <i>Journal of Chemical Physics</i> , 1998, 109, 746-752.   | 1.2  | 22        |

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|----|---|------|-----------|
| 19 | Regeneration of sulfur-poisoned Cu-SSZ-13 catalysts: Copper speciation and catalytic performance evaluation. <i>Applied Catalysis B: Environmental</i> , 2021, 299, 120626.   | 10.8 | 21        |
| 20 | Coadsorption of Ethanethiol with Sulfur, Oxygen, and Water on the Fe(100) Surface. <i>Langmuir</i> , 1996, 12, 392-401.   | 1.6  | 20        |
| 21 | Catalytic Intermediates of CO <sub>2</sub> Hydrogenation on Cu(111) Probed by In Operando Near-Ambient Pressure Technique. <i>Chemistry - A European Journal</i> , 2018, 24, 16097-16103.   | 1.7  | 20        |
| 22 | Differences in oxidation-reduction kinetics and mobility of Cu species in fresh and SO <sub>2</sub> -poisoned Cu-SSZ-13 catalysts. <i>Applied Catalysis B: Environmental</i> , 2021, 284, 119756.   | 10.8 | 20        |
| 23 | Mechanism and activity of CO oxidation on (001) and (110) surfaces of spinel Co <sub>3</sub> O <sub>4</sub> , NiCo <sub>2</sub> O <sub>4</sub> and NiFe <sub>2</sub> O <sub>4</sub> : A DFT study. <i>Surface Science</i> , 2018, 677, 278-283.   | 0.8  | 18        |
| 24 | First-Principles Calculations of Condition-Dependent Cu/Fe Speciation in Sulfur-Poisoned Cu- and Fe-SSZ-13 Catalysts. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4632-4645.  | 1.5  | 16        |
| 25 | Impedance-type measurements using XPS. <i>Applied Surface Science</i> , 2009, 256, 1296-1298.   | 3.1  | 14        |
| 26 | Ligand Metathesis in Surface-Bound Alkoxyzirconium Complexes. 2. Preparation of Alkanecarboxylate Complexes in Ultrahigh Vacuum. <i>Langmuir</i> , 1998, 14, 3720-3722.   | 1.6  | 12        |
| 27 | Low-Energy Collisions of Pyrazine and Benzene Molecular Ions with Self-Assembled Monolayer Surfaces: A The Odd-Even Chain Length Effect. <i>Langmuir</i> , 2001, 17, 8254-8259.   | 1.6  | 12        |
| 28 | The Reaction between Tetrakis(diethylamino)tin and Indium Tin Oxide. <i>Langmuir</i> , 2001, 17, 5696-5702.   | 1.6  | 12        |
| 29 | Interaction of Neopentyl Thiol with Clean and Oxygen-Modified Fe(100) Surfaces. <i>Journal of Physical Chemistry B</i> , 2000, 104, 3320-3326.  | 1.2  | 11        |
| 30 | Useful X-ray Photoelectron Spectroscopy-Based Chemical Tool: Differential Charging Studies of Complex Composite Materials. <i>Chemistry of Materials</i> , 2017, 29, 4162-4166.   | 3.2  | 10        |
| 31 | Probing the Oxidation/Reduction Dynamics of Fresh and P-, Na-, and K-Contaminated Pt/Pd/Al <sub>2</sub> O <sub>3</sub> Diesel Oxidation Catalysts by STEM, TPR, and in Situ XANES. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2945-2952. | 1.5  | 10        |
| 32 | Monolayer Stabilization on Hydroxylated Aluminum Surfaces. <i>Langmuir</i> , 1998, 14, 1367-1370.   | 1.6  | 9         |
| 33 | Reaction of Tetra(tert-Butoxy)Tin or -Zirconium with Hydroxylated Titanium in Ultrahigh Vacuum: A Contrasting Reactivity with Hydroxylated Aluminum Substrate. <i>Langmuir</i> , 1999, 15, 7092-7096.   | 1.6  | 9         |
| 34 | Probing the Reaction Mechanism in CO <sub>2</sub> Hydrogenation on Bimetallic Ni/Cu(100) with Near-Ambient Pressure X-Ray Photoelectron Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 2548-2554.                        | 4.0  | 9         |
| 35 | Synthesis of a surface mounted metal-organic framework on gold using a Au-carbene self-assembled monolayer linkage. <i>Materials Chemistry Frontiers</i> , 2019, 3, 636-639.  | 3.2  | 8         |
| 36 | The nature of residues following the ashing of arsenic implanted photoresist. <i>Journal of Materials Research</i> , 1997, 12, 2799-2808.   | 1.2  | 7         |

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|----|---|-----|-----------|
| 37 | The Reaction between Tetra-tert-butoxytin and Al(110)âˆ™OH in Ultrahigh Vacuum: A Contrasting Behavior vs Its Zirconium Analogue. <i>Langmuir</i> , 1998, 14, 1532-1534.                              | 1.6 | 7         |
| 38 | Can We Understand the Molecule in Molecular Electronics?. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 9737-9738.   | 7.2 | 7         |
| 39 | Impact of Biodiesel-Based Phosphorus and Sulfur on Copper Speciation of Cu-SSZ-13 Catalysts: XAFS Scanning during H <sub>2</sub> -TPR. <i>Journal of Physical Chemistry C</i> , 2022, 126, 3385-3396. | 1.5 | 7         |
| 40 | Differential charging in X-ray photoelectron spectroscopy for characterizing organic thin films. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2010, 176, 18-23.                    | 0.8 | 5         |
| 41 | Computational Study of Noble Metal CHA Zeolites: NO Adsorption and Sulfur Resistance. <i>Journal of Physical Chemistry C</i> , 2022, 126, 7022-7035.  | 1.5 | 5         |
| 42 | Transfer of Electron Density and Formation of Dative Bonds in Chemisorption of Pyrrolidine on Si(111)-7 Å <sup>-1</sup> . <i>Journal of Physical Chemistry C</i> , 2008, 112, 15474-15482.            | 1.5 | 4         |
| 43 | Thermally Driven Switch of Binding Configuration of 3-Pyrroline on Si(111)-7 Å <sup>-1</sup> . <i>Journal of Physical Chemistry C</i> , 2011, 115, 2020-2025.   | 1.5 | 4         |
| 44 | The Kinetics and Mechanism of the Selective Oxidation of 20Feâˆ™40Niâˆ™10Mnâˆ™30Cr Alloy. <i>Oxidation of Metals</i> , 2015, 83, 71-88.   | 1.0 | 4         |
| 45 | Simple twoâˆ™axes sample positioning mechanism. <i>Review of Scientific Instruments</i> , 1977, 48, 399-401.  | 0.6 | 3         |
| 46 | Sensitivity analysis of surface structure determination by low energy electron diffraction. <i>Journal of Chemical Physics</i> , 1983, 79, 3581-3589.   | 1.2 | 3         |
| 47 | Epitaxy and Defects in Laser-Irradiated, Single-Crystal Bismuth. <i>Materials Research Society Symposia Proceedings</i> , 1984, 35, 439.  | 0.1 | 3         |
| 48 | Two-Dimensional versus Three-Dimensional Self-Assembly of a Series of 5-Alkoxyisophthalic Acids. <i>Langmuir</i> , 2018, 34, 10739-10747.   | 1.6 | 3         |
| 49 | Polygonal fitting for linearization. <i>Review of Scientific Instruments</i> , 1984, 55, 1510-1511.   | 0.6 | 2         |
| 50 | Insights into sulfur poisoning and regeneration of Cu-SSZ-13 catalysts: in situ Cu and S K-edge XAS studies. <i>Catalysis Science and Technology</i> , 2021, 11, 5619-5632.                           | 2.1 | 2         |
| 51 | Epitaxy and defects in laser-irradiated, single-crystal bismuth. <i>Journal of Materials Research</i> , 1988, 3, 1097-1103.   | 1.2 | 1         |
| 52 | Laser-Assisted Etching of Lithium Niobate. <i>Materials Research Society Symposia Proceedings</i> , 1988, 126, 251.   | 0.1 | 1         |
| 53 | A Compact UHV Tandem Quadrupole Mass Spectrometer for Surfaceâˆ™Induced Dissociation Studies Using Wellâˆ™Characterized Surfaces. <i>Israel Journal of Chemistry</i> , 1998, 38, 375-383.             | 1.0 | 1         |
| 54 | Systematic Modification of Indium Tin Oxide to Enhance Diode Device Behavior. <i>Materials Research Society Symposia Proceedings</i> , 2005, 871, 1.  | 0.1 | 1         |

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|----|--|-----|-----------|
| 55 | Formation of Organic Nanostructures on Semiconductor Surfaces. , 2012, , 277-300.  |     | 1         |
| 56 | Interpretation on Nanoporous Network Structure in Rice Husk Silica Layer: A Graph Model. ACS Omega, 2018, 3, 11544-11549.  | 1.6 | 1         |
| 57 | Studies of Structure and Dynamics in Heterogeneous Reactions. Israel Journal of Chemistry, 1982, 22, 395-400.  | 1.0 | 0         |
| 58 | Differential charging analysis of Nb-TiO <sub>2</sub> thin films on SiO <sub>2</sub> substrates. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, 051101. | 0.9 | 0         |