

# Helena Tã©llez

## List of Publications by Year in descending order

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44  
papers

1,221  
citations

471477

17  
h-index

361001

35  
g-index

44  
all docs

44  
docs citations

44  
times ranked

1616  
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface termination and subsurface restructuring of perovskite-based solid oxide electrode materials. <i>Energy and Environmental Science</i> , 2014, 7, 3593-3599.	30.8	273
2	Segregated Chemistry and Structure on (001) and (100) Surfaces of $(\text{La}_{1-x}\text{Sr}_x)_2\text{CoO}_4$ Override the Crystal Anisotropy in Oxygen Exchange Kinetics. <i>Chemistry of Materials</i> , 2015, 27, 5436-5450.	6.7	115
3	Surface chemistry of $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_3$ thin films and its impact on the oxygen surface exchange resistance. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22759-22769.	10.3	102
4	Oxygen Activation and Dissociation on Transition Metal Free Perovskite Surfaces. <i>Chemistry of Materials</i> , 2015, 27, 8273-8281.	6.7	87
5	The interaction of molecular oxygen on LaO terminated surfaces of $\text{La}_2\text{NiO}_4$ . <i>Journal of Materials Chemistry A</i> , 2016, 4, 13113-13124.	10.3	54
6	Surface chemistry evolution in $\text{LnBaCo}_2\text{O}_5$ double perovskites for oxygen electrodes. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 20856-20863.	7.1	52
7	Surface segregation and poisoning in materials for low-temperature SOFCs. <i>MRS Bulletin</i> , 2014, 39, 810-815.	3.5	47
8	Influence of Crystal Orientation and Annealing on the Oxygen Diffusion and Surface Exchange of $\text{La}_2\text{NiO}_4$ . <i>Journal of Physical Chemistry C</i> , 2016, 120, 17927-17938.	3.1	39
9	A $\text{CO}_2$ -Tolerant Perovskite Oxide with High Oxide Ion and Electronic Conductivity. <i>Advanced Materials</i> , 2020, 32, e1905200.	21.0	39
10	New perspectives in the surface analysis of energy materials by combined time-of-flight secondary ion mass spectrometry (ToF-SIMS) and high sensitivity low-energy ion scattering (HS-LEIS). <i>Journal of Analytical Atomic Spectrometry</i> , 2014, 29, 1361.	3.0	38
11	$\text{LaTiO}_x\text{N}_y$ Thin Film Model Systems for Photocatalytic Water Splitting: Physicochemical Evolution of the Solid-Liquid Interface and the Role of the Crystallographic Orientation. <i>Advanced Functional Materials</i> , 2017, 27, 1605690.	14.9	38
12	Relating surface chemistry and oxygen surface exchange in $\text{LnBaCo}_2\text{O}_5$ air electrodes. <i>Faraday Discussions</i> , 2015, 182, 145-157.	3.2	36
13	Double perovskite cathodes for proton-conducting ceramic fuel cells: are they triple mixed ionic electronic conductors?. <i>Science and Technology of Advanced Materials</i> , 2017, 18, 977-986.	6.1	35
14	Oxygen exchange and transport in dual phase ceramic composite electrodes. <i>Faraday Discussions</i> , 2015, 182, 271-288.	3.2	31
15	Electronic properties and surface reactivity of SrO-terminated $\text{SrTiO}_3$ and SrO-terminated iron-doped $\text{SrTiO}_3$ . <i>Science and Technology of Advanced Materials</i> , 2018, 19, 221-230.	6.1	31
16	Electronic and surface properties of Ga-doped $\text{In}_2\text{O}_3$ ceramics. <i>Applied Surface Science</i> , 2015, 349, 970-982.	6.1	29
17	Screening and confirmatory methods for the analysis of macrocyclic lactone mycotoxins by CE with amperometric detection. <i>Electrophoresis</i> , 2009, 30, 499-506.	2.4	22
18	Validation of a screening method for rapid control of macrocyclic lactone mycotoxins in maize flour samples. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 709-714.	3.7	17

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19	Surface chemistry and restructuring in thin-film $\text{La}_{n+1}\text{Ni}_n\text{O}_{3n+1}$ ( $n = 1, 2$ and $3$ ) Ruddlesden-Popper oxides. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9003-9013.	10.3	16
20	Reliability of binary analytical responses. <i>TrAC - Trends in Analytical Chemistry</i> , 2005, 24, 509-515.	11.4	14
21	Determination of $^{16}\text{O}$ and $^{18}\text{O}$ sensitivity factors and charge-exchange processes in low-energy ion scattering. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	11
22	Accurate and Precise Measurement of Oxygen Isotopic Fractions and Diffusion Profiles by Selective Attenuation of Secondary Ions (SASI). <i>Analytical Chemistry</i> , 2015, 87, 2907-2915.	6.5	11
23	Surface composition of solid oxide electrode structures by laterally resolved low energy ion scattering (LEIS). <i>International Journal of Hydrogen Energy</i> , 2014, 39, 20850-20855.	7.1	10
24	Dynamic etching of soluble surface layers with on-line inductively coupled plasma mass spectrometry detection – a novel approach for determination of complex metal oxide surface cation stoichiometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2016, 31, 1638-1646.	3.0	10
25	(Invited) Effects of Microstructure on Surface Segregation: Role of Grain Boundaries. <i>ECS Transactions</i> , 2016, 72, 57-69.	0.5	9
26	Energy-resolved depth profiling of metal-polymer interfaces using dynamic quadrupole secondary ion mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2009, 23, 2357-2362.	1.5	8
27	Focused ion beam imaging of laser ablation sub-surface effects on layered materials. <i>Applied Surface Science</i> , 2008, 255, 2265-2269.	6.1	6
28	SIMS investigation on the effect of the interstitial moisture in metallized polymer films. <i>Journal of Analytical Atomic Spectrometry</i> , 2010, 25, 669.	3.0	5
29	Bibliometric study of journal publications on analytical chemistry 2000–2007: publication productivity and journal preferences by country. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 1477-1484.	3.7	4
30	Secondary ion mass spectrometry of powdered explosive compounds for forensic evidence analysis. <i>Rapid Communications in Mass Spectrometry</i> , 2012, 26, 1203-1207.	1.5	4
31	Surface Segregation and Inter-Diffusion of Cations and Impurities in Microelectrodes for Solid Oxide Fuel Cells and Electrolyzers. <i>ECS Transactions</i> , 2015, 66, 69-77.	0.5	4
32	Surface Composition of Layered Ruddlesden-Popper $\text{La}_{n+1}\text{Ni}_n\text{O}_{3n+1}$ ( $n = 1, 2$ and $3$ ) Epitaxial Films. <i>ECS Transactions</i> , 2015, 66, 89-93.	0.5	4
33	Investigation of metallic interdiffusion in $\text{Al}_x\text{Ga}_{1-x}\text{N}/\text{GaN}/\text{sapphire}$ heterostructures used for microelectronic devices by SEM/EDX and SIMS depth profiling. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 2865-2871.	3.7	3
34	Atomic/molecular depth profiling of nanometric metallized polymer thin films by secondary ion mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2010, 24, 463-468.	1.5	3
35	Surface Segregation in Solid Oxide Electrode Materials Occurring at Intermediate Temperatures. <i>ECS Transactions</i> , 2015, 66, 61-68.	0.5	3
36	Low energy ion scattering: surface preparation and analysis of $\text{Cu}(\text{In,Ga})\text{Se}_2$ for photovoltaic applications. <i>Progress in Photovoltaics: Research and Applications</i> , 2015, 23, 1219-1227.	8.1	3

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37	Development of an energy-resolved method for SIMS in-depth analysis of metal-polymer interfaces. Surface and Interface Analysis, 2011, 43, 632-634.	1.8	2
38	Multi-analytical study of patination methods on steel substrates: a full insight into surface chemistry and morphology. Analytical and Bioanalytical Chemistry, 2012, 402, 2277-2285.	3.7	2
39	Depth-profiling analysis of MOCVD-grown triple junction solar cells by SIMS. Surface and Interface Analysis, 2011, 43, 646-648.	1.8	1
40	Fundamental electrochemistry: general discussion. Faraday Discussions, 2015, 182, 177-212.	3.2	1
41	Surface Composition and Oxygen Transport Properties of LSCF: From Bulk Ceramics to Devices. ECS Transactions, 2015, 68, 557-567.	0.5	1
42	Oxygen Diffusion in Ceramic Mixed Conducting $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ : The Role of Grain and Twin Boundaries. Journal of the Electrochemical Society, 2022, 169, 044513.	2.9	1
43	High Resolution Electron Microscopy Characterization of $(\text{La}_{0.5}\text{Sr}_{0.5})_2\text{CoC}_4$ Thin Film Cathode Materials. Microscopy and Microanalysis, 2014, 20, 1912-1913.	0.4	0
44	Materials development: general discussion. Faraday Discussions, 2015, 182, 307-328.	3.2	0