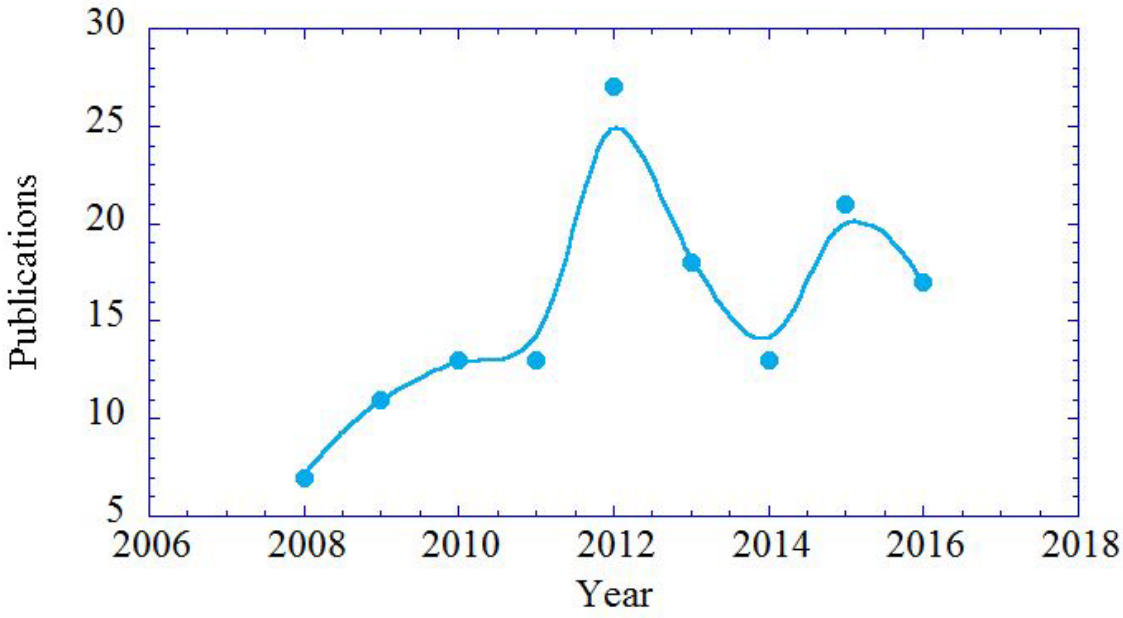
http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008



2016

17	Larry Bull, Rita Toth, Chris Stone, Ben De Lacy Costello, Andrew Adamatzky, Light-Sensitive Belousov–Zhabotinsky Computing Through Simulated Evolution. Book: Emergence, Complexity and Computation, Volume 23 2017, Advances in Unconventional Computing, Volume 2: Prototypes, Models and Algorithms, Editor: Andrew Adamatzky, http://link.springer.com/chapter/10.1007%2F978-3-319-33921-4_8
16	Kohta Suzuno, Daishin Ueyama, Michal Branicki, Rita Tóth, Artur Braun, István Lagzi, Marangoni Flow Driven Maze Solving. Book: Emergence, Complexity and Computation, Volume 23 2017, Advances in Unconventional Computing, Volume 2: Prototypes, Models and Algorithms, Editor: Andrew Adamatzky, http://link.springer.com/chapter/10.1007%2F978-3-319-33921-4_10
15	Rita Toth, Roche M. Walliser, Istvan Lagzi, Florent Boudoire, Marcel Düggelin, Artur Braun, Catherine E. Housecroft, Edwin C Constable, Probing the mystery of Liesegang band formation: revealing the origin of self-organized dual-frequency micro and nanoparticle arrays, Soft Matter, 2016, Accepted Manuscript DOI: 10.1039/C6SM01564F http://pubs.rsc.org/en/content/articlelanding/2016/sm/c6sm01564f#!divAbstract
14	A. Braun, M. M. Diale, K. D. Maabong, R. Toth, Safe And Decentralised Hydrogen Fuel Production And Storage For Residential Building And Mobility Applications Extended Abstracts (# 240), 6th International Disaster and Risk Conference IDRC Davos 2016, At Davos, Switzerland. Volume: Integrative Risk Management - towards resilient cities 102-105, http://idrc.info/fileadmin/user_upload/idrc/proceedings2016/Extended_Abstracts_IDRC_2016_final2408.pdf
13	A. Kulka, K. Świerczek, K. Walczak, A. Braun, J. Molenda, Correlation between transport properties and lithium extraction/insertion mechanism in Fe-site substituted phosphoolivine, Solid State Ionics 2016, 288, 184–192. http://www.sciencedirect.com/science/article/pii/S016727381600059X

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

12	B Gędziorowski, J Tobola, A Braun, J Molenda , Impact of crystal structure singularity on transport and electrochemical properties of Lix (LiyFezV1-yz)O2 − electrode material for lithium batteries - Functional Materials Letters 9 (4) 2016, 1641006, http://www.worldscientific.com/doi/pdf/10.1142/S179360471641006X
11	A Braun, N. Gaillard, E.L. Miller, H. Wang, Editorial: "For nature is not in a hurry and mankind is", Journal of Materials Research 31 (11), 1545-1546, June 2016. https://www.cambridge.org/core/services/aop-cambridge-core/content/view/E1A6B1908B54DBBBC76F4A6880CE8DEF/S0884291416002223a.pdf/introduction.pdf
10	R. M. Walliser, R. Tóth, I. Lagzi, D. Mathys, L. Marot, A. Braun, C. E. Housecroft, E. C. Constable, Understanding the formation of aligned, linear arrays of Ag nanoparticles, RSC Adv., 2016,6, 28388-28392 http://pubs.rsc.org/en/content/articlelanding/2016/ra/c6ra04194a#!divAbstract
9	K. Maabong, Y. Hu, A. Braun, A. Machatine, M. Diale. *Influence of anodization time on surface modifications on α-Fe2O3 photoanode upon anodization*; Journal of Materials Research, Focus Issue: Advanced Materials and Structures for Solar Fuels, in press
8	Rita Tóth, Roché M. Walliser, Niamh S. Murray, Debajeet K. Bora, Artur Braun, Guiseppino Fortunato, Catherine E. Housecroft, Edwin C. Constable, *A self-assembled, multicomponent water oxidation device*, Chem. Commun., 2016,52, 2940-2943. http://pubs.rsc.org/en/content/articlelanding/2016/cc/c5cc09556e#!divAbstract
7	A Braun, Y. Hu, F. Boudoire, D. K. Bora, DD Sarma, M. Grätzel, C. M. Eggleston, The electronic, chemical and electrocatalytic processes and intermediates on iron oxide surfaces during photoelectrochemical water splitting, Catal. Today (2016) 260, 72-81. http://dx.doi.org/10.1016/j.cattod.2015.07.024
6	Yelin Hu, Florent Boudoire, Iris Herrmann-Geppert, Peter Bogdanoff, George Tsekouras, Bongjin Simon Mun, Giuseppino Fortunato, Michael Grätzel, A. Braun, *Molecular Origin and Electrochemical Influence of Capacitive Surface States on Iron Oxide Photoanodes*, J. Phys. Chem. C, DOI: 10.1021/acs.jpcc.5b08013
5	A Braun. *Nachrichten aus der Chemie. Keine Experimente!* Nachrichten aus der Chemie Feb. 2016, in press.
4	A Braun, M. Diale, T. Huthwelker, J.A. van Bokhoven, *International Exploratory Workshop on Catalysis, Photoelectrochemistry and X-ray spectroscopy for Renewable Energy*, Synchrotron Radiation News 2016, 29, 1, 14-16 (Taylor&Francis). http://dx.doi.org/10.1080/08940886.2016.1124677
3	A Braun, "*Structure and transport properties in ceramic fuel cells (SOFC), components and materials*"; Book chapter in "Structural Characterization Techniques: Advances and Applications in Clean Energy". Editor: Lorenzo Malavasi; Publisher: Pan Stanford Publishing Pte Ltd, ISBN 9789814669344 - CAT# N11404 https://www.crcpress.com/Structural-Characterization-Techniques-Advances-and-Applications-in-Clean/Malavasi/9789814669344
2	K. Maabong, A. Machatine; Y. Hu; A. Braun; F.-J. Nambala; M. Diale; *Morphology, structural and optical properties of iron oxide thin film photoanodes in photoelectrochemical cell*: effect of electrochemical oxidation; Physica B 2016, 480, 91-94. http://www.sciencedirect.com/science/article/pii/S0921452615301599
1	J.-J. Wang, Y. Hu, R. Toth, G. Fortunato, A. Braun, *Facile Nonpolar Organic Solution-Process to Nanostructure Hematite Photoanode with High Efficiency and Stability for Water Splitting*, J. Mater. Chem. A, 2016,4, 2821-2825 http://pubs.rsc.org/en/content/articlelanding/2014/ta/c5ta06439b#!divAbstract

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

2015

21	D. K. Bora, A. Braun, Assessment of the electronic structure of photo-electrodes with X-ray and electron spectroscopy", Book "From Molecules to Materials-Pathways to Artificial Photosynthesis"; Elena A. Rozhkova and Katsuhiko Ariga. Springer International Publishing (Verlag) 978-3-319-13799-5 (ISBN), 2015 http://www.springer.com/de/book/9783319137995
20	D. K. Bora, A. Braun, K. Gajda-Schrantz in "Bioconjugated and bio-hybrid electrodes for solar fuels by photo-electrochemical water splitting", Book "From Molecules to Materials-Pathways to Artificial Photosynthesis" Elena A. Rozhkova and Katsuhiko Ariga. Springer International Publishing (Verlag) 978-3-319-13799-5 (ISBN), 2015 http://www.springer.com/de/book/9783319137995
19	A Braun, F. Boudoire, D. K. Bora, G. Faccio, Y. Hu, A. Kroll, B. S. Mun, S. T. Wilson, Biological components and bio-electronic interfaces of water splitting photo-electrodes for solar hydrogen production, Chem. Eur. J. 2015, 21(11), 4188-4199. (invited concept paper), http://onlinelibrary.wiley.com/doi/10.1002/chem.201405123/abstract
18 1.761	D. K. Bora, Fabrication of Silicon doped Hematite photoelectrode with enhanced photocurrent density via solution processing of an in-situ TEOS modified precursor, Materials Science in Semiconductor Processing, Volume 31, March 2015, Pages 728–738 http://www.sciencedirect.com/science/article/pii/S136980011400657X
17	G. Faccio, K. Schrantz, J. Ihssen, F. Boudoire, Y. Hu, B. S. Mun, D. K. Bora, L. Thoeny-Meyer, A. Braun, Charge transfer between photosynthetic proteins and hematite in bio-hybrid photoelectrodes for solar water splitting cells, Nano Convergence 2015, 2:9 (Open Access) http://www.nanoconvergencejournal.com/content/2/1/9
16	J. Molenda, D. Baster, A. Milewska, K. Świerczek, D.K. Bora, A. Braun, J. Tobola, *Electronic origin of difference in discharge curve between LixCoO2 and NaxCoO2 cathodes*, Solid State Ionics 2015, 251, 15-27 . DOI: 10.1016/j.ssi.2014.09.032 http://www.sciencedirect.com/science/article/pii/S0167273814003981
15	A. Braun, *Just for us?*, (Letter to the Editor), J. Synchrotron Rad. 2015, 22, http://dx.doi.org/10.1107/S1600577515013818
14	A Braun, Y. Hu, F. Boudoire, D. K. Bora, DD Sarma, M. Grätzel, C. M. Eggleston, *The electronic, chemical and electrocatalytic processes and intermediates on iron oxide surfaces during photoelectrochemical water splitting*, Catal. Today (2015) 260, 72-81. http://dx.doi.org/10.1016/j.cattod.2015.07.024
12	G. Tsekouras, F. Boudoire, B. Pal, M. Vondráček, K. C. Prince, DD Sarma, A. Braun, *Electronic Structure Origin of Conductivity and Oxygen Reduction Activity Changes in Low-Level Cr-Substituted (La,Sr)MnO3*, J. Chem. Phys. 143, 114705 (2015). http://dx.doi.org/10.1063/1.4931033
11 3.708	P. Lovass, M. Branicki, R. Tóth, A. Braun, K. Suzuno, D. Ueyama, I. Lagzi; *Maze solving using temperature-induced Marangoni flow*. RSC Adv., 2015,5, 48563-48568 http://pubs.rsc.org/en/Content/ArticleLanding/2015/RA/c5ra08207b#!divAbstract
10	G. Faccio, K. Schrantz, L. Thöny-Meyer, A. Braun, J. Ihssen, *Engineering of proteins to develop*

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

	biomimetic hematite-based biohybrid materials, Protein Science 2015, 24, (S1) 184-185, Meeting Abstract: PI-015, 29th Annual Symposium of the Protein-Society. http://onlinelibrary.wiley.com/doi/10.1002/pro.2823/pdf
9	Q. Chen, A. Braun, *Elucidating the biography of a proton in a proton conductor with neutrons and X-rays*, Swiss Neutron News 2015, 45, 14-22, http://sgn.web.psi.ch/sgn/snn/snn_45.pdf
8	A. Braun, *Protonen auf die Sprünge helfen: Keramische Protonenleiter als Festelektrolyte für Mikro-BZ*, HZwei – Das Magazin für Wasserstoff und Brennstoffzellen 2015, April, 40-41 (HydroGeit Verlag, no IF)
7 1.552	A Braun, D. Nordlund, S.-W. Song, T.-W. Huang, D. Sokaras, X. Liu, W. Yang, T.C. Weng, Z. Liu, *Hard X-rays in – Soft X-rays out: An operando piggyback view deep into a charging lithium ion battery with X-ray Raman spectroscopy*, J. Electron Spec. Rel. Phenom. 2015, 200, 257–263. http://www.sciencedirect.com/science/article/pii/S0368204815000626
6	D. K. Bora, A. Braun, *Assessment of the electronic structure of photo-electrodes with X-ray and electron spectroscopy*", Book "From Molecules to Materials-Pathways to Artificial Photosynthesis"; Elena A. Rozhkova and Katsuhiko Ariga. Springer International Publishing (Verlag) 978-3-319-13799-5 (ISBN), 2015 http://www.springer.com/de/book/9783319137995
5	D. K. Bora, A. Braun, K. Gajda-Schrantz in "*Bioconjugated and bio-hybrid electrodes for solar fuels by photo-electrochemical water splitting*", Book "From Molecules to Materials-Pathways to Artificial Photosynthesis" Elena A. Rozhkova and Katsuhiko Ariga. Springer International Publishing (Verlag) 978-3-319-13799-5 (ISBN), 2015 http://www.springer.com/de/book/9783319137995
4	A Braun, *Advanced and in situ analytical methods for energy applications* in: Topics in Current Chemistry (Springer) "Solar Energy for Fuels". Eds. Candace K. Chan, Harun Hueysuez in: Candace K. Chan, Harun Tuysuz, Artur Braun, Chinmoy Ranjan, Fabio La Mantia, Benjamin K. Miller, Liuxian Zhang, Peter A. Crozier, Joel A. Haber, John M. Gregoire, Hyun S. Park, Adam S. Batchellor, Lena Trotochaud, Shannon W. Boettcher, Advanced and In Situ Analytical Methods for Solar Fuel Materials, Topics in Current Chemistry 371, 253-324 (2015). http://link.springer.com/chapter/10.1007/128_2015_650
3 0.201	A. Braun, R. Toth, I. Lagzi, *Künstliche Intelligenz aus dem Chemiereaktor*, Nachrichten aus der Chemie (Chemie und Computer), 2015, 63(4), 445-446 http://onlinelibrary.wiley.com/doi/10.1002/nadc.201590132/abstract
2 4.384	R. Walliser, F. Boudoire, E. Orosz, R. Toth, A. Braun, E. Constable, Z. Rácz, I. Lagzi, *Growth of nano- and microparticles by controlled reaction-diffusion processes*; Langmuir 2015, 31(5), 1828-1834. http://pubs.acs.org/doi/abs/10.1021/la504123k
1 2.112	A. Kulka, A. Braun, T.-W. Huang, A. Wolska, M. T. Klepka, A. Szewczyk, D. Baster, W. Zając, K. Świerczek, J. Molenda, *Evidence for Al doping in lithium sublattice of LiFePO4*, Solid State Ionics 270 (2015) 33–38. **http://www.sciencedirect.com/science/article/pii/S0167273814005128**

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

2014

13 5.069	A. Braun, H. Fan, K. Haenen, L. Stanciu, J. Theil, *Society News: Braun, Fan, Haenen, Stanciu, and Theil to chair 2015 MRS Spring Meeting*, MRS Bulletin 39 (8), August 2014, 740-741. http://dx.doi.org/10.1557/mrs.2014.183
12 2.112	J. Molenda, D. Baster, A. Milewska, K. Świerczek, D.K. Bora, A. Braun, J. Tobola, *Electronic origin of difference in discharge curve between LixCoO2 and NaxCoO2 cathodes*, Solid State Ionics, in press DOI: 10.1016/j.ssi.2014.09.032 http://www.sciencedirect.com/science/article/pii/S0167273814003981
11	A. Braun, F. Boudoire, *Photoelektroden für solaren Wasserstoff*, HZwei - Das Magazin für Wasserstoff und Brennstoffzellen, invited popular article; 10 (2014) 14-15 (http://www.hzwei.info/aktuelles_heft.phtml) Ausgabe: September-Oktober 2014
10 2.112	G. Tsekouras, A. Braun, *Conductivity and oxygen reduction activity changes in lanthanum strontium manganite upon low-level chromium substitution*, Solid State Ionics 266 (2014) 19–24. http://www.sciencedirect.com/science/article/pii/S0167273814003403
9 4.187	K. Suzuno , D. Ueyama , M. Branicki , R. Toth , A. Braun, I. Lagzi, *Maze Solving using Fatty Acid Chemistry*, Langmuir 2014, 30(31), 9251–9255, Editor's Choice Free Download & Journal Cover Page, Most Downloaded # 15 in 2014, http://pubs.acs.org/doi/abs/10.1021/la5018467
8 10.043	Y. Hu, A. Yella, S. Guldin, F. Stellacci, M. Grätzel, M. Stefik, *High Surface Area Porous Platinum Electrodes for Enhanced Charge Transfer*, Advanced Energy Materials (Wiley Publisher, IF=10.043), http://onlinelibrary.wiley.com/doi/10.1002/aenm.201400510/pdf
7 2.046	A. Milewska, K. Świerczek, J. Tobola, F. Boudoire, Y. Hu, D. K. Bora, B. S. Mun, A. Braun, J. Molenda, *The nature of the nonmetal-metal transition in LixCoO2 oxide,* Solid State Ionics 263 (2014) 110–118, http://www.sciencedirect.com/science/article/pii/S0167273814002069
6 11.653	F. Boudoire, R. Toth, J. Heier, A. Braun, E. C. Constable, *Photonic light trapping in self-organized all-oxide microspheroids impacts photoelectrochemical water splitting*, Energy Environ. Sci., 2014, 7, 2680-2688. http://pubs.rsc.org/en/content/articlelanding/2014/ee/c4ee00380b#!divAbstract
5 2.562	D.K. Bora, A. Braun, *Solution Processed Transparent Nanoparticulate ZnO Thin Film Electrode for Photoelectrochemical Water Oxidation*, RSC Adv., 2014,4, 23562-23570.
4 2.112	F. Boudoire, R. Toth, J. Heier, A. Braun, E.C. Constable, *Hematite nanostructuring using electrohydrodynamic lithography*; Applied Surface Science 2014, 305(30), 62-22. http://www.sciencedirect.com/science/article/pii/S0169433214004760
3 2.562	A. J. Allen, J. Ilavsky, P. R. Jemian, A. Braun, *Evolution of electrochemical interfaces in solid oxide fuel cells (SOFC): a Ni and Zr resonant anomalous ultra-small-angle X-ray scattering study with elemental and spatial resolution across the cell assembly*, RSC Adv., 2014, 4, 4676-4690. http://pubs.rsc.org/en/content/articlelanding/2013/ra/c3ra46886k#!divAbstract
2	A Braun, J.-P. Embs, A. Remhof, *2013 ESS Science Symposium: Neutrons for Future Energy Strategies*, Neutron News (Taylor&Francis); 2014, 25(1), 6-7.
1	J. Ihssen, A. Braun, G. Faccio, K. Gajda-Schrantz, L. Thöny-Meyer; *Light harvesting proteins for*

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

2.326	*solar fuel generation in bioengineered photoelectrochemical cells*; Current Protein and Peptide Science, 2014, 15,1-11, in press DOI: 10.2174/1389203715666140327105530

2013

18	D. Regonini, A. C. Teloeken, A. K. Alves, F. A. Berutti, K. Gajda-Schrantz , C. P. Bergmann, T. Graule, and F. Clemens, Electrospun TiO2 Fiber Composite Photoelectrodes for Water Splitting, ACS Appl. Mater. Interfaces, 2013, 5 (22), pp 11747–11755
17	E. Illés, E. Takács, A. Dombi, K. Gajda-Schrantz, G. Rácz, K. Gonter, L. Wojnárovit, Hydroxyl radical induced degradation of ibuprofen, Science of The Total Environment, 447, 286–292 (2013).
16	Q. Chen, F. El Gabaly, F. Aksoy Akgul, Z. Liu, B.S. Mun, S. Yamaguchi, A. Braun, Observation of oxygen vacancy filling under water vapor in ceramic proton conductors in-situ with ambient pressure XPS; Chem. Mater., 2013, 25 (23), pp 4690–4696
15	D. Flak, A. Braun, M. Rekas, *Correlation of electronic structure and transport properties of FSS-prepared Ti-substituted Fe2O3 nanoparticles for gas sensing*. In K. Przybylski (Ed.) Reactivity of Solids (pp. 325-336), Papers of the Commission on Ceramic Science - Polish Ceramic Bulletin, Ceramics Vol. 115, 2013. Krakow: Polish Ceramic Society. ISSN 0860-3340, ISBN 978-83-60958-51-3.
14	A Beni, A. Braun, T. Huthwelker, J. van Bokhoven, *Meeting Report: Exploratory Workshop on Soft X-rays and Electrochemical Energy Storage and Converters*, Synchrotron Radiation News 2013, 26 (5), pp.; in press. http://dx.doi.org/10.1080/08940886.2013.832590
13	Y. Hu, D. K. Bora, F. Boudoire, F. Häussler, M. Graetzel, E. C. Constable, A. Braun, *A dip coating process for large area silicon-doped high performance hematite photoanodes*, J. Renewable Sustainable Energy 5, 043109 (2013); http://dx.doi.org/10.1063/1.4812831
12	D. K. Bora, A. Braun, R. Erni, U. Müller, M. Döbeli, E. C. Constable, *Hematite–NiO/α-Ni(OH)2 heterostructure photoanode with high electrocatalytic current density and charge storage capacity*, Phys. Chem. Chem. Phys., 2013,15, 12648-12659 http://pubs.rsc.org/en/content/articlelanding/2013/cp/c3cp52179f IF=3.573
11	Q. Chen, J. Banyte, X. Zhang, J. P. Embs, A. Braun; *Proton Diffusivity in Spark Plasma Sintered BaCe0.8Y0.2O3-δ: in-situ combination of quasi-elastic neutron scattering and impedance spectroscopy*; Solid State Ionics; in press, http://dx.doi.org/10.1016/j.ssi.2013.05.009 IF=2.646

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

10	G. Nurk, T. Huthwelker, A. Braun, Chr. Ludwig, E. Lust, R. P. W. J. Struis, *Redox dynamics of sulphur with Ni/GDC anode during SOFC operation at mid- and low-range temperatures: An operando S K-edge XANES study*, J. Power Sources 2013, 240, 448–457 http://www.sciencedirect.com/science/journal/aip/03787753 IF=4.951
9	A. Thapper, S. Styring, G. Saracco, A. W. Rutherford, B. Robert, A. Magnuson, W. Lubitz, A. Llobet, P. Kurz, A. Holzwarth, S. Fiechter, H. de Groot, S. Campagna, A. Braun, H. Bercegol, V. Artero; *Artificial Photosynthesis for Solar Fuels – an Evolving Research Field within AMPEA, a Joint Programme of the European Energy Research Alliance*, Green 2013; 3(1): 43 –57, DOI 10.1515/green-2013-0007 ; Free download under http://www.degruyter.com/view/j/green.2013.3.issue-1/green-2013-0007/green-2013-0007.xml?format=INT
8	H. Wang, A. T. Young, J. Guo, S. Friedrich, A. Braun, W. Gu, S. P. Cramer*; Soft X-ray absorption spectroscopy and resonant inelastic X-ray spectroscopy below 100 eV: probing first-row transition metal M-edges in chemical complexes*; Journal of Synchrotron Radiation, Journal of Synchrotron Radiation 2013, 20, 1-6 http://scripts.iucr.org/cgibin/paper?S0909049513003142 IF=2.726
7	N. Gaillard, Y. Chang, A. DeAngelis , S. Higgins, A. Braun ; *A Nanocomposite Photoelectrode Made of 2.2 eV Band Gap Copper Tungstate (CuWO4) and Multi-Wall Carbon Nanotubes for Solar-Assisted Water Splitting*; Int. J. Hydrogen Energy 2013, 38(8), 3166–3176 http://dx.doi.org/10.1016/j.ijhydene.2012.12.104 IF=4.054
6	Braun, A., '*The ins and outs of hydrogen*', International Innovation, EuroFocus Issue 18, January 2013, pp 85-87 (Research Media, UK) http://www.research-europe.com/magazine/ICT/EF18/index.html
5	D.K. Bora, A. Braun, E.C. Constable, "*In rust we trust". Hematite the prospective inorganic backbone for artificial photosynthesis*, Energy Environ. Sci., 2013,6, 407-425. http://pubs.rsc.org/en/content/articlelanding/2012/EE/C2EE23668K IF=9.61
4	D. K. Bora, Y. Hu, S. Thiess, S. Erat, X. Feng, S. Mukherjee, G. Fortunato, N. Gaillard, R. Toth, K. Gajda-Schrantz, W. Drube, M. Grätzel, J. Guo, J. Zhu, E.C. Constable, D.D. Sarma, H. Wang, A. Braun, *Between Photocatalysis and Photosynthesis: Synchrotron spectroscopy methods on molecules and materials for solar hydrogen generation*, J. Electron Spectr. Rel. Phenom., Volume 190, Part A, October 2013, Pages 93–105 http://www.sciencedirect.com/science/article/pii/S0368204812001600 IF=1.985
3	D. Flak, A. Braun, B.S. Mun, J.B. Park, M. Parlinska-Wojtan, T. Graule, M. Rekas, *Spectroscopic assessment of the role of hydrogen on surface defects, on the electronic structure and transport properties of TiO_2, ZnO and SnO_2 nanoparticles*, Phys. Chem. Chem. Phys., 2013,15, 1417-1430. http://pubs.rsc.org/en/content/articlelanding/2012/cp/c2cp42601c IF=3.57
2	K. Gajda-Schrantz, S. Tymen, F. Boudoire, R. Toth, D.K. Bora, W. Calvet, M. Grätzel, E. C. Constable, A. Braun, *Formation of an electron hole doped film in the α-Fe2O3 photoanode upon electrochemical oxidation*, Phys. Chem. Chem. Phys., 2013, 15, 1443-1451

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

	http://pubs.rsc.org/en/content/articlelanding/2012/cp/C2CP42597A IF=3.57
1	D. Flak, A. Braun, A. Vollmer, M. Rekas, *Effect of the titania substitution on the electronic structure and transport properties of FSS-made Fe_2O_3 nanoparticles for hydrogen sensing*, Sensors & Actuators B 2013, 187, 347–355. http://www.sciencedirect.com/science/article/pii/S0925400512013470 IF=3.898

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

2012

27	Navickas, Edvinas; Braun, Artur; Knoknerytė, Julija; Chen, Qianli; Abakevičienė, Brigita; Kubel, Frank; Tamulevičius, Sigitas; Fleig, Jürgen. *BARIUM CERATE SUBSTITUTED WITH YTTRIA AS PROTON CONDUCTING ELECTROLYTE*. RADIATION INTERACTION WITH MATERIAL AND ITS USE IN TECHNOLOGIES 2012, Pages: 107-110 http://connection.ebscohost.com/c/articles/76231485/barium-cerate-substituted-yttria-as-proton-conducting-electrolyte
26	E. Navickas, A. Braun, J. Knoknery, Q. Chen, B. Abakeviien, F. Kubel, S. Tamulevicius, J. Fleig, Barium Cerate with yttria as proton conducting electrolyte; Book Editor: Grigonis, A., 4th International Conference on Radiation Interaction with Material and Its Use in Technologies, Kaunas, Lithuania, May 14-17, 2012; Book Series: Radiation Interaction with Material and Its Use in Technologies; Pages: 107-110 Published: 2012
25	D. Flak, A. Braun ,A. Vollmer, M. Rekas, *Effect of the Titania Substitution on the Electronic Structure and Transport Properties of FSS-made Fe2O3 Nanoparticles for Hydrogen Sensing*, The AMA Science Portal for Sensor and Measurement Technology, DOI 10.5162/IMCS2012/P2.4.8, pages 1521-1524, 14th International Meeting on Chemical Sensors - IMCS 2012
24	D. Flak, A. Braun, B.S. Mun, M. Döbeli, T. Graule, M. Rekas, Electronic structure and surface properties of nonstoichiometric Fe2O3-δ (α and γ) and its application in gas Sensing, Procedia Engineering **47** (2012) 257 – 260 http://www.sciencedirect.com/science/article/pii/S1877705812041872
23	D. K. Bora, Y. Hu, S. Thiess, S. Erat, X. Feng, S. Mukherjee, G. Fortunato, N. Gaillard, R. Toth, K. Gajda-Schrantz, W. Drube, M. Grätzel, J. Guo, J. Zhu, E.C. Constable, D.D. Sarma, H. Wang, A. Braun, *Between Photocatalysis and Photosynthesis: Synchrotron spectroscopy methods on molecules and materials for solar hydrogen generation*, J. Electron Spectr. Rel. Phenom., in press http://dx.doi.org/10.1016/j.elspec.2012.11.009 IF=1.985
22	A. Kocbach Bolling, A. I. Totlandsdal, G. Sallsten, A. Braun, R. Westerholm, C. Bergvall, J. Boman, H. J: Dahlman, M. Sehlstedt, F. Cassee, T. Sandstrom, P. E. Schwarze, J. I. Herseth, *Wood smoke particles from different combustion phases induce similar pro-inflammatory effects in a co-culture of monocyte and pneumocyte cell lines*. Particle and Fibre Toxicology 2012, **9**:45 http://www.particleandfibretoxicology.com/content/pdf/1743-8977-9-45.pdf IF=7.25
21	D. Šojic´, V. Despotovic´, D. Orcˇic´, E. Szabó, E. Arany, S. Armakovic´, E. Illés, K. Gajda-Schrantz, A. Dombi, T. Alapi, E. Sajben-Nagy, A. Palágyi, Cs. Vágvölgyi, L. Manczinger, L. Bjelica, B. Abramovic´, Degradation of thiamethoxam and metoprolol by UV, O3 and UV/O3 hybrid processes: Kinetics, degradation intermediates and toxicity, J. of Hydrology 2012, **472–473**, 314–327 http://dx.doi.org/10.1016/j.jhydrol.2012.09.038 IF=3.118
20	D. Flak, A. Braun, A. Vollmer, M. Rekas. *Effect of the Titania Substitution on the Electronic Structure and Transport Properties of FSS-made Fe_2O_3Nanoparticles for Hydrogen Sensing,* Sensors & Actuators B: Chemical, in press IF=3.898 http://www.sciencedirect.com/science/article/pii/S0925400512013470

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

19	Q. Chen, S. Holdsworth, J. Embs, V. Pomjakushin, B. Frick, A. Braun, *High Temperature High Pressure Cell for Neutron Scattering Studies*, High Pressure Research http://dx.doi.org/10.1080/08957959.2012.725729 , IF=0.995
18	A Braun, F Aksoy Akgul, Q Chen, S Erat, Tzu-Wen Huang, N Jabeen, Z Liu, B S. Mun, S S. Mao, X Zhang, *Observation of substrate orientation dependent oxygen defect filling in thin $WO_{3-\delta}/TiO_2$ pulsed laser deposited films with in-situ XPS at high oxygen pressure and temperature*, Chem. Mater. 2012, 24 (17),3473–3480, DOI: 10.1021/cm301829y IF = 7.286
17	E. Arany, T. Oppenlander, K. Gajda-Schrantz, A. Dombi,*H_2O_2 production during the 172 and/or 185/254 nm photomineralization of Ibuprofen or Ketoprofen* Current Physical Chemistry, 2, 3, 286-293 (2012) IF = 2.62
16	A. Braun, Wasserstoff aus Photosynthese, NanoEnergie 7, CENIDE Newsletter, Duisburg/Germany; invited popular article **www.uni-due.de/imperia/md/content/cenide/nanoenergie_07_2012_web.pdf**
15	A. Braun, K. Sivula, D. K. Bora, J. Zhu, L. Zhang, M. Grätzel, J. Guo, E. C. Constable, *Direct observation of two electron holes in hematite during photo-electrochemical water splitting*, J. Phys. Chem. C, 2012, 116 (32), 16870–16875 **http://dx.doi.org/10.1021/jp304254k** IF = 4.805
14	A Thankappan, M. Hari, S. Mathew, S. Ani Joseph, R. Erni, D.K. Bora, A. Braun, V.P.N. Nampoori, *Synthesis of monocrystalline zinc oxide microrods by wet chemical method for light confinement applications*, Physica E: Low-dimensional Systems and Nanostructures, 2012, 44(10), 2118-2123, **http://dx.doi.org/10.1016/j.physe.2012.06.026** IF = 1.532
13	B. Abakevičienė, A. Žalga, S. Tautkus, J. Pilipavičius, E. Navickas, A. Kareiva, S. Tamulevičius. *Synthesis of YSZ thin films by the novel aqueous sol-gel citrate-precursor method*, Solid state Ionics 2012, 225, 73-76, **http://www.sciencedirect.com/science/article/pii/S0167273812003670** IF=2.646
12	H. H. Chang, J. Y. Luo, C. T. Wu, F. C. Hsu, T. W. Huang, P. M. Wu, M. K. Wu, M. J. Wang, Weak localization in $FeSe_{1-x}Te_x$ superconducting thin films, Supercond. Sci. Technol. 25 (2012) 035004, **http://iopscience.iop.org/0953-2048/25/3/035004/** IF=2.402
11	A. Braun, Solarer Wasserstoff und künstliche Photosynthese, (**invited**) Swiss Engineering STZ, Ausgabe Nr. **5** Mai 2012, Seiten 20-21**,** **http://www.swissengineering-stz.ch/pdf/stz0520125244.pdf**
10	D. Flak, A. Braun, K.A. Michalow, J. Wyrwa, M. Parlinska-Wojtan, T. Graule, M. Rekas, Differences in Electrophysical and Gas Sensing Properties of Flame Spray Synthesized Fe2O3(γ-Fe2O3 and α-Fe2O3), J. Nanoscience and Technology 2012, 12(8), 6401-6411. **http://id22079462.library.ingentaconnect.com/content/asp/jnn/2012/00000012/00000008/art00037** IF=1.44
9	R. Toth, J. Heier, J.-N. Tisserant, E.E. Anna, A. Braun, T. Graule, Self-organized microdots formed by dewetting in highly volatile liquid, accepted by J. Colloid Interf. Sci. 2012, 378(1), 201–209. http://dx.doi.org/10.1016/j.jcis.2012.04.011 IF=3.223
8	A. Braun, S. Erat, D. Bayraktar, A. Harvey, T. Graule, *Electronic origin of conductivity changes and isothermal expansion of Ta- and Ti-substituted La1/2Sr1/2Fe-oxide in oxidative and reducing atmosphere*, Chem. Mater., 2012, 24 (8), 1529–1535, IF=7.286 http://pubs.acs.org/doi/abs/10.1021/cm300423m

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

7	A. Braun, *Zwischen Photovoltaik und Photosynthese - Solarer Wasserstoff aus Rost und Algen*, HZwei - Das Magazin für Wasserstoff und Brennstoffzellen, **invited** article; April 2012, pp. 20-21 (http://www.hzwei.info/aktuelles_heft.phtml)
6	A. Braun, Q. Chen, D. Flak, G. Fortunato, K. Gajda-Schrantz, M. Grätzel, T. Graule, J. Guo, T.-W. Huang, Z. Liu, A.V. Popelo, K. Sivula, H. Wadati, P. P. Wyss, L. Zhang, J. Zhu; *Iron resonant photoemission spectroscopy on anodized hematite points to electron hole doping during anodization*, ChemPhysChem, IF=3.339 http://dx.doi.org/10.1002/cphc.201200074
5	E. Illés, E. Takács, A. Dombi, K. Gajda-Schrantz, K. Gonter, L. Wojnárovits, *Radiation induced degradation of ketoprofen in dilute aqueous solution*, Radiation Physics and Chemistry 2012, 81(9), 1479-1483, IF=1.153 http://dx.doi.org/10.1016/j.radphyschem.2011.11.038
4	J.-M. Song, B.-R. Huang, C.-Y. Liu, Y.-S. Lai, Y.-T. Chiu, T.-W. Huang, *Nanomechanical responses of intermetallic phase at the solder joint interface - crystal orientation and metallurgical effects*, Mater. Sci. & Eng. A 2012, 534(1), 53-59, IF=2.319 http://www.sciencedirect.com/science/article/pii/S0921509311012767
3	D.K. Bora, A. Braun, S. Erat, O. Safonova, T. Graule, E. C. Constable, *Evolution of structural properties of iron oxide nanoparticles during temperature treatment from 250°C – 900°C: X-ray diffraction and Fe K-shell pre-edge x-ray absorption study*, Current Applied Physics 12 (2012), 817-825. IF=1.707 http://dx.doi.org/10.1016/j.cap.2011.11.013 http://arxiv.org/abs/1111.6204
2	A.I. Totlandsdal, J.I. Herseth, A. Kocbach Bølling, A. Kubátová, A. Braun, R. E. Cochran, M. Refsnes, J. Øvrevik, M. Låg , *Differential effects of the particle core and organic extract of diesel exhaust particles*, accepted by Toxicology Letters 208 (3), 2012, 262–268 IF=3.605 **http://www.sciencedirect.com/science/article/pii/S0378427411016018**
1	D. K. Bora, E. A. Rozhkova , K. Schrantz, A. Braun, P. Wyss, T. Graule, E. C. Constable, *Photocurrent Improvement of Nanostructured Hematite Thin Film Electrode Integrated With Light Harvesting Membrane Protein C-Phycocyanin*, Advanced Functional Materials 2012, 22(3), 490–502, February 8, 2012, IF=8.49 **http://onlinelibrary.wiley.com/doi/10.1002/adfm.201101830/abstract**

2011 average IF=3.55

13	A. Braun, S. Erat, A. Ariffin, R. Manzke, H. Wadati, T. Graule, L.J. Gauckler, *High temperature oxygen NEXAFS valence band spectra and conductivity of LaFe3/4Ni1/4O3 from 300 K to 773 K*, Appl. Phys. Lett. 2011, 99, 202112 ; http://arxiv.org/abs/1111.6205 http://apl.aip.org/resource/1/applab/v99/i20/p202112_s1?isAuthorized=no IF=3.82
12	Y. Chang, A. Braun, A. Deangelis, J. Kaneshiro, N. Gaillard, *Effect of thermal treatment on the crystallographic, surface energetics and photoelectrochemical properties of reactively co-sputtered copper tungstate (CuWO4) for water splitting*, J. Phys. Chem. C, 2011, 115 (51), pp

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

	25490–25495 http://pubs.acs.org/doi/abs/10.1021/jp207341v IF=4.52
11	Q. Chen, T.-W. Huang, M. Baldini, A. Hushur, A. Pomjakushin, S. Clark, W. Mao, M. Manghnani, A. Braun, T. Graule, *The Effect of Compressive Strain on the Raman Modes of the Dry and Hydrated BaCe0.8Y0.2O3 Proton Conductor*, J. Phys. Chem. C 2011, 115 (48), 24021. IF=4.52 **http://pubs.acs.org/doi/abs/10.1021/jp208525j http://arxiv.org/abs/1111.6210**
10	O. Haas, C. Ludwig, U. Bergmann, R.N. Singh, A. Braun, T. Graule, *X-ray absorption investigation of the valence state and electronic structure of $La_{1-x}Ca_xCoO_{3-\delta}$ in comparison with $La_{1-x}Sr_xCoO_{3-\delta}$ and $La_{1-x}Sr_xFeO_{3-\delta}$*; J. Solid State Chem. (2011) 184(12) 3163-3171. **http://dx.doi.org/10.1016/j.jssc.2011.09.027** IF=2.261
9	H.H. Chang, J.Y. Luo, C.T. Wu, F.C. Hsu, T.W. Huang, P.M. Wu, M.K. Wu, M.J. Wang, *The vortex state of $FeSe_{1-x}Te_x$ superconducting thin films*, Supercond. Sci. Technol. 24 (2011) 105011, **http://iopscience.iop.org/0953-2048/24/10/105011** IF=2.402
8	A. Braun, S. Erat, X. Zhang, Q. Chen, F. Aksoy, T.-W. Huang, R. Loehnert, Z. Liu, S.S. Mao, T. Graule. *Surface and Bulk Oxygen Vacancy Defect States near the Fermi Level in 100 nm WO3-δ/TiO2 (110) Films: A Resonant Valence Band Photoemission Spectroscopy Study*, J. Phys. Chem. C, 2011, 115 (33), pp 16411–16417, IF=4.52 **http://pubs.acs.org/doi/abs/10.1021/jp202375h**
7	D.K. Bora, A. Braun, R. Erni, G. Fortunato, T. Graule, E.C. Constable, *Hydrothermal treatment of a hematite film leads to highly oriented faceted nanostructures with enhanced photocurrents*, Chem. Mater., 2011, 23 (8), pp 2051–2061. **http://pubs.acs.org/doi/abs/10.1021/cm102826n** IF=7.286
6	J.-C. Tinguely, R. Solarska, A. Braun, T. Graule, *Low-temperature roll-to-roll coating procedure of dye-sensitized solar cell photoelectrodes on flexible polymer-based substrates*, Semicond. Sci. Technol. 26 (2011) 045007. **http://iopscience.iop.org/0268-1242/26/4/045007/** IF=1.389
5	D.K. Bora, A. Braun, S. Erat, R. Löhnert, A.K. Ariffin, R. Manzke, K. Sivula, T. Graule, M. Grätzel, E. Constable, *Evolution of an oxygen NEXAFS transition in the upper Hubbard band in α-Fe2O3 upon electrochemical oxidation*, IF=4.52 J. Phys. Chem. C, 2011, 115 (13), 5619–5625, **http://pubs.acs.org/doi/full/10.1021/jp108230r**
4	G. Nurk, P. Holtappels, R. Figi, J. Wochele, M. Wellinger, A. Braun, T.Graule, *A versatile salt evaporation reactor system for SOFC operando studies on anode contamination and degradation with impedance spectroscopy*, J. Power Sources 2011, 196 (6) 3134-3140. IF=4.283 **http://dx.doi.org/10.1016/j.jpowsour.2010.11.023**
3	Q. Chen, A. Braun, S. Yoon, N. Bagdassarov, T. Graule, *Effect of lattice volume and compressive strain on the conductivity of BaCeY-oxide ceramic proton conductors*, J. Eur. Ceram. Soc. 31 (14), 2011, 2657-2661, **http://www.sciencedirect.com/science/article/pii/S0955221911000744** IF=2.574
2	R. Toth, M. Schabikowski, J. Heier, A. Braun, D. Kata, T. Graule, *The effect of solvent and electric field on the size distribution of iron-oxide microdots: Exploitation of self-assembly strategies for photoelectrodes*, J. Mater. Res. 2011, 26(2), 254-261. IF=1.395 **http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8020663**

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

1	S. Kanel; M. Martin; H. Bechtel; P. Nico; Hoi-Ying Holman; M. Marcus; J. Guo; A. Braun; C. Heske; A. Fedorov; C. Jozwiak; A. Lanzara; Z. Hussain; A. Bansil; M. Hammel; G. Hura; S. Classen; H. Bluhm; Z. Liu; W. Yang, *2010 ALS Users' Meeting and Workshops*, Synchrotron Radiation News 2011, 24(1), 2 – 9. IF=NO **http://id22079462.library.ingentaconnect.com/content/tandf/gsrn/2011/00000024/00000001/art00001**

2010 average IF=2.7815

13	S. Erat, A. Braun, C. Piamonteze, Z. Liu, A. Ovalle, H. Schindler, T. Graule, L.J. Gauckler. *Entanglement of charge transfer, hole doping, exchange interaction, and octahedron tilting angle and their influence on the conductivity of La1−xSrxFe0.75Ni0.25O3−δ: A combination of x-ray spectroscopy and diffraction*, J. Appl. Phys. 108, 124906 (2010). IF=2.064 **http://jap.aip.org/resource/1/japiau/v108/i12/p124906_s1**
12	S. Erat, H. Wadati, F. Aksoy, Z. Liu, T. Graule, L.J. Gauckler, A. Braun, *Iron-resonant valence band photoemission and oxygen near edge x-ray absorption fine structure study on La1−xSrxFe0.75Ni0.25O3−δ*, Appl. Phys. Lett. 97, 124101 (2010). IF=3.820 **http://apl.aip.org/resource/1/applab/v97/i12/p124101_s1**
11	G. Y. Katsapov and A. Braun, *Deuterium Tracer Experiments Prove Thiophenic Hydrogen Involvement During The Initial Hydrodesulfurization Step*, Catalysis Lett. 2010, 138 (3-4) 224-230. **http://id22079462.library.ingentaconnect.com/content/klu/catl/2010/00000138/F0020003/00000400** IF=1.907
10	S. Kanel; R. Schoenlein; J. Corlett; E. Arenholz; P. Fischer; D. Prendergast; Y. Idzerda; A. MacDowell; H. Bluhm; J. Guo; A. Braun; C. Heske; M. Kunz; N. Tamura, *ALS Users Meeting and Workshops*, Synchrotron Radiation News 2010, 23 (1) 2–14. IF=NO **http://www.informaworld.com/smpp/content~db=all~content=a919148861**
9	Braun A., Augustynski J., Chandler E.A., Mao S.S., Miller E.L., Turner J.A., Ye J.H., *Photocatalysis for energy and environmental sustainability*, Introduction, J. Mater. Res. 25 (1), 1-2, 2010. **http://www.mrs.org/s_mrs/bin.asp?CID=17951&DID=290987&DOC=FILE.PDF** IF=1.395
8	Q. Chen, A. Braun, A. Ovalle, C.-D. Savaniu, T. Graule, N. Bagdassarov, *Hydrostatic pressure decreases the proton mobility in the hydrated BaZr0.9Y0.1O3 proton conductor*, Appl. Phys. Lett. 97, 041902 (2010) **http://apl.aip.org/resource/1/applab/v97/i4/p041902_s1** IF=3.820
7	A. Braun, J. Ilavsky, S. Seifert, *Highly porous activated glassy carbon film sandwich structure for electrochemical energy storage in ultracapacitor applications: Study of the porous film structure and gradient*, J. Mater. Res. (2010) 25(8) 1532-1540. IF=1.395 **http://www.mrs.org/s_mrs/sec_subscribe.asp?CID=21489&DID=330307&action=detail**
6	A. Braun, H. Wang, T. Funk, S. Seifert, E.J. Cairns, *Depth profile analysis of a cycled lithium ion LiMn2O4 battery electrode via the valence state of Mn with soft x-ray emission spectroscopy*, Journal of Power Sources 2010, 195(22),7644-7648, IF=4.283 **http://dx.doi.org/10.1016/j.jpowsour.2010.05.053**
5	A. Braun, S. Erat, R. Mäder, X. Zhang, Y. Sun, Z. Liu, Bongjin S. Mun, M. Ari, H. Grimmer, E. Pomjakushina, S.S. Mao, K. Conder, L.J. Gauckler, T. Graule, *Quantitative correlation of bulk*

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

	conductivity and surface representative valence band characteristics in iron perovskites for 300 K < T < 800 K: High temperature photoemission studies on single crystal monoliths and films; J. Electron Spectroscopy and Related Phenomena 181 (2010), pp. 56-62; IF=1.750 **http://dx.doi.org/10.1016/j.elspec.2010.05.024**
4	R. Solarska, A. Heel, J. Ropka, A. Braun, L. Holzer, J. Ye, T. Graule. *Enhancement of Photocatalytic Performance of Calcium Bismuth Mixed Oxide by One-Step Flame Spray Synthesis*. Applied Catalysis A 2010, 382(2) 190-196. IF=3.383 **http://dx.doi.org/10.1016/j.apcata.2010.04.043**
3	A. Braun, K.K. Akurati, G. Fortunato, F.A. Reifler, A. Ritter, A.S. Harvey, A. Vital, T. Graule, *Nitrogen doping of TiO2 photocatalyst forms a second eg state in the Oxygen (1s) NEXAFS pre-edge*, J. Phys. Chem. C, 2010, 114 (1), pp 516–519 IF=4.524 **http://pubs.acs.org/doi/pdf/10.1021/jp908875t**
2	R. Solarska, B.D. Alexander, A. Braun, R. Jurczakowski, G. Fortunato, M. Stiefel, T. Graule, J. Augustynski, *Tailoring the morphology of WO3 films with substitutional cation doping: Effect on the photoelectrochemical properties* Electrochimica Acta 2010, 55 (26), 7780-7787 IF=3.642 **http://dx.doi.org/10.1016/j.electacta.2009.12.016**
1	H. Metin, M. Ari, S. Durmuş, M. Bozoklu, S. Erat, A. Braun. *The structural, optical, and electrical properties of CdS films: the effect of annealing in nitrogen atmosphere*. J. Mater. Res. 2010, 25(1), 189-196. IF=1.395 **http://www.mrs.org/s_mrs/sec_subscribe.asp?CID=17951&DID=290960&action=detail**

2009 average IF=2.935

11	S. Erat, A. Braun, A. Ovalle, C. Piamonteze, Z. Liu, T. Graule, L.J. Gauckler, *Correlation of O(1s) and Fe(2p) NEXAFS spectra and electrical conductivity of La1-xSrxFe0.75Ni0.25O3-δ*, Appl. Phys. Lett., 95(17), 174108, 2009. **http://link.aip.org/link/doi/10.1063/1.3246145** **http://arxiv.org/abs/1106.1019** IF=3.845
10	A Braun, *Comment on "Effects of Native Organic Material and Water on Sorption Properties of Reference Diesel Soot"*, Environmental Science & Technology, 2009, 43 (13), 5158–5159 **http://pubs.acs.org/doi/pdf/10.1021/es900943r** IF=4.827
9	A Braun, A. Ovalle, S. Erat, V. Pomjakushin, A. Cervellino, W. Stolte, and T. Graule, *Yttrium and hydrogen superstructure and correlation of lattice expansion and proton conductivity in the* *BaZr0.9Y0.1O2.95 proton conductor*, Appl. Phys. Lett., 95, 224103, 2009. IF=3.845 **http://apl-beta.aip.org/applab/v95/i22/p224103_s1**
8	A Braun, X. Zhang, Y. Sun, U. Müller, Z. Liu, S. Erat, M. Ari, H. Grimmer, S.S. Mao, T. Graule, *Correlation of high temperature X-ray photoemission valence band spectra and conductivity in strained LaSrFeNi-oxide on SrTiO3(110)*, Applied Physics Letters, 95, 022107, 2009. IF=3.845 **http://link.aip.org/link/?APPLAB/95/022107/1** **http://arxiv.org/abs/1106.1024**
7	A Braun, D. Bayraktar, A.S. Harvey, D. Beckel, J.A. Purton, P. Holtappels, L.J. Gauckler, T. Graule, *Pre-edges in oxygen (1s) x-ray absorption spectra: A spectral indicator for electron*

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

	hole depletion and transport blocking in iron perovskites, Applied Physics Letters 94 (20), 202102, 2009. **http://link.aip.org/link/?APPLAB/94/202102/1 http://arxiv.org/abs/1106.0991** IF=3.845
6	A Braun, *Two-process model for the atmospheric weathering, oxidation and ageing of diesel soot*, Geophysical Research Letters 2009, 36, L07810. IF=3.204 **http://www.agu.org/pubs/crossref/2009/2008GL037077.shtml**
5	A Kubatova, T. J. Lahren, J. Beranek, I. P. Smoliakova, A. Braun, and F. E. Huggins, *Extractable Organic Carbon and its Differentiation by Polarity in Diesel Exhaust, Wood Smoke and Urban Particulate Matter*, Aerosol Science and Technology, 43:714–729, 2009. IF=2.340 **http://www.informaworld.com/smpp/content~content=a910673385~db=all~jumptype=rss**
4	A.J. Allen, J. Ilavsky, A. Braun, *Multi-Scale Microstructure Characterization of Solid Oxide Fuel Cell Assemblies with Ultra Small-Angle X-Ray Scattering,* Advanced Engineering Materials 2009, 11 (6), 495-501. **http://www3.interscience.wiley.com/journal/122443526/abstract** IF=1.738
3	O. Haas, U.F. Vogt, C. Soltmann, A. Braun, W.-S. Yoon, X.Q. Yang, T. Graule. *The Fe K-edge X-Ray Absorption Characteristics of La1-xSrxFeO3-δ Prepared by Solid State Reaction*. Materials Research Bulletin 44 (2009), pp. 1397-1404. IF=2.098 **http://www.science-direct.com/science/article/B6TXC-4V47CNT-1/2/b5da0f2079b8eb21a15eb94d5a39712f**
2	A Braun, S. Duval, J.P. Embs, F. Juranyi, P. Ried, P. Holtappels, R. Hempelmann, U. Stimming, Th. Graule. *Proton diffusivity in the BaZr0.9Y0.1O3-delta proton conductor.* J. Appl. Electrochem. 2009, 39(4), 471-475. **http://arxiv.org/abs/1106.1924** **http://www.springerlink.com/content/c884r27365325361/fulltext.pdf** IF=1.496
1	Braun, A. Kubatova, S. Wirick, S.B. Mun. *Radiation damage from EELS and NEXAFS in diesel soot and diesel soot extracts*. Spec. Issue on Radiation Damage in J. Electron Spectroscopy & Related Phenomena, 170, (1/3), 2009, 42-48. IF=1.205 **http://www.sciencedirect.com/science/article/B6TGC-4PDSBJX-1/2/cb4ddfd0a33a045aaa070ff1cba6a189**

2008

7	R. Solarska, **A. Braun**, J. Augustynski, *Nanostructured thin-film tungsten trioxide photoanodes for photoelectrolytic production of hydrogen from sea water*, in: Smart Energy Strategies: Meeting the Climate Change Challenge, vdf Hochschulverlag AG an der ETH Zürich, (ed) Energy Science Center ETH Zurich (2008), page 125, ISBN 978-3-7281-3218-5
6	S. Erat, A. Braun, X. Zhang, S. Y. Sun, Z. Liu, A. Frei,M. Ari, S.S. Mao, L. J. Gauckler, T. Graule, *LaSrFeNi-oxide: a promising cathode material matching proton conductor specifications for intermediate temperature solid oxide fuel cells*, in: Smart Energy Strategies: Meeting the Climate Change Challenge, vdf Hochschulverlag AG an der ETH Zürich, (ed) Energy Science

http://empa.ch/web/s201/ceramic-electrodes-electrolytes

Braun Group Publications

Papers	17	21	13	18	27	13	13	11	7
Year	2016	2015	2014	2013	2012	2011	2010	2009	2008

	Center ETH Zurich (2008), page 50, ISBN 978-3-7281-3218-5
5	A. Braun, J. Richter, A. S. Harvey, S. Erat, A. Infortuna, A. Frei, E. Pomjakushina, Bongjin S. Mun, P. Holtappels, U. Vogt, K. Conder, L. J. Gauckler, and T. Graule. *Electron hole–phonon interaction, correlation of structure, and conductivity in single crystal La0.9Sr0.1FeO3,* Applied Physics Letters 93, 262103, 2008. **http://link.aip.org/link/?APPLAB/93/262103/1** **http://arxiv.org/abs/1106.1014**
4	A Braun, M. Janousch, J. Sfeir, J. Kiviaho, M. Noponen, F. E. Huggins, M. J. Smith, R. Steinberger-Wilckens, P. Holtappels, T. Graule, *Molecular speciation of sulfur in solid oxide fuel cell anodes with x-ray absorption spectroscopy*, J. Power Sources 2008,183, 2, 564-570. **http://dx.doi.org/ ; doi: 10.1016/j.jpowsour.2008.05.048**
3	S. Homma, Y. Uoi, A. Braun, J. Koga, S. Matsumoto. *Reaction model for fluorination of uranium dioxide using improved unreacted shrinking core model for expanding spherical particles*. Journal of Nuclear Science and Technology 2008, 45 (8) 823-837. **http://www.jstage.jst.go.jp/article/jnst/45/8/45_823/_article**
2	A. Braun, F.E. Huggins, A. Kubátová , S. Wirick, B.S. Mun, J.M.D. Mcdonald, M.M. Maricq, K.E. Kelly, N. Shah, G.P. Huffman; *Towards distinguishing wood-smoke and diesel exhaust in ambient particulate matter*. Environmental Science & Technology 2008, 42(2) 374-380. **http://pubs.acs.org/doi/abs/10.1021/es071260k**
1	J. Richter, A. Braun, A.S. Harvey, P. Holtappels, T. Graule, L.J. Gauckler, *Valence changes of manganese and praseodymium in Pr(1–x)Sr(x)Mn(1–y)In(y)O(3–δ) perovskites upon cation substitution as determined with XANES and ELNES.* Physica B 2008, 403(1) 87-94. **http://www.science-direct.com/science/article/B6TVH-4PCXGHP-3/2/ef0808643988b85125b872b346defdd1**