

Curriculum Vitae of Eric Bakker, 2020

Professor, Department of Inorganic and Analytical Chemistry, University of Geneva, Geneva, Switzerland

Academic Degrees and Schooling

- 1989 Dipl. Chem. ETH, ETH Zurich
- 1993 Ph.D. natural sciences, ETH Zurich. Thesis Supervisor: Wilhelm Simon

Training and Education

- 1985-89 University studies of Chemistry, ETH Zurich
- 1989-90 Industry practice, Mettler-Toledo, Urdorf, Switzerland
- 1990-93 Doctoral studies, ETH Zurich, Switzerland
- 1993-95 Postdoctoral studies, University of Michigan, Ann Arbor, Michigan

Professional Activities (post-graduate):

- 1990-93 Project Manager, Mettler-Toledo, Urdorf, Switzerland.
- 1993-95 Postdoctoral studies, University of Michigan, Ann Arbor, Michigan
- 1995-98 Assistant Professor, Auburn University, U.S.A.
- 1998-03 Associate Professor, Auburn University, U.S.A.
- 2000 Visiting Professor, Swiss Federal Institute of Technology, Zurich, Switzerland
- 2001 Visiting Professor, Ecole Normale Supérieure, Paris, France
- 2003-05 Professor, Auburn University, U.S.A.
- 2005-08 Professor, Purdue University, West Lafayette, U.S.A.
- 2007-10 Professor and Director, Curtin University of Technology, Perth, Australia
- 2007-10 Director, Western Australian Nanochemistry Research Institute, Perth
- 2012-16 Director, Department of Inorganic and Analytical Chemistry, University of Geneva
- 2015 Visiting Professor, Keio University, Yokohama, Japan
- 2016 Visiting Professor, University of New South Wales, Sydney, Australia
- 2010- Professor, University of Geneva, Switzerland
- 2020- Director, Department of Inorganic and Analytical Chemistry, University of Geneva

Society Memberships

American Chemical Society, Royal Society of Chemistry (Fellow), Swiss Chemical Society, International Society of Electrochemistry, Society for Electroanalytical Chemistry, Matrafüred Society for Electrochemical Sensors

Honours and Awards

2019 Simon-Widmer Award, Swiss Chemical Society
2014 Robert Boyle Prize, Royal Society of Chemistry
2014- Fellow of the Royal Society of Chemistry
2009-10 Australian Professorial Fellowship, Australian Research Council
2004 Roche Prize for Sensor Technology
2003-05 Alumni Professorship, Auburn University, USA
2001 Young Investigator Award, Society for Electroanalytical Chemistry (U.S.A.)
2000 Sigma Xi outstanding researcher award (U.S.A.)

Technical and Scientific Roles

2020- Executive Editor, ACS Sensors
2015–20 Associate Editor, ACS Sensors
2006–11 Subject Editor, Sensors and Actuators, B
Co-organizer, Matrafured Conference Series and Pittcon Organized Contributed Sessions in the field (many years)

Research Topics

Electrochemical Sensors, Membrane Electrodes, Potentiometric Sensors, Optical Sensors, Emulsified Sensing and Titration Reagents, Paper-Based Analytical Devices, Environmental Aquatic Sensing, Membrane Transport and Separation, Dynamic Electrochemistry and Ion Transfer Voltammetry, Chemical Imaging, Colorimetric Imaging and Sensing, Polymer and Ionophore Design.

Publications and Metrics

>360 Publications

111 published items in the period 2015–2020, 184 items for 2010-2020

177 published items in ACS journals

of which 125 in Analytical Chemistry, 27 in ACS Sensors, and 10 in the Journal of the American Chemical Society

Citation metrics:

24'198 global citations and H-index of 72 (Google Scholar)

19'169 global citations and H-index of 63 (Web of Science)

Publications of Eric Bakker

- 365 Rapid Constant Potential Capacitive Measurements with Solid-Contact Ion-Selective Electrodes Coupled to Electronic Capacitor
Kraikaew, P.; Sailapu, S. K.; Bakker, E. *Anal. Chem.*, **2020**, 92, ASAP. DOI: 10.1021/acs.analchem.0c03254.
- 363 Triumph and Misery of Measurement Science
Bakker, E. *ACS Sensors*, **2020**, 5, 2264-2265. DOI: 10.1021/acssensors.0c01542.
- 360 Newly designed gel integrated nanostructured gold-based interconnected microelectrode arrays for direct arsenite monitoring in aquatic systems
Tercier-Waeber, M. L.; Figuera, M.; Abdou, M.; Groc, P.; Bakker, E.; van der Waal, P. *Sens. Actuators, B*, in press
- 358 Emulsion Doping of Ionophores and Ion-Exchangers into Ion-Selective Electrode Membranes
Soda, Y.; Gao, W.; Bosset, J.; Bakker, E. *Anal. Chem.*, **2020**, 92, ASAP.
- 357 Self-Powered Potentiometric Sensor Transduction to a Capacitive Electronic Component for Later Readout
Sailapu, S. K.; Kraikaew, P.; Sabaté, N.; Bakker, E. *ACS Sensors*, **2020**, 5, 2909-2914. DOI: 10.1021/acssensors.0c01284.
- 356 A Scientific Journey with Ionophore-Based Sensors
Bakker, E. *Chimia*, **2020**, 7/8, 569-576. DOI: 10.2533/chimia.2020.569.
- 355 Giants in Sensing: A Virtual Issue to Celebrate Five Years of ACS Sensors
Bakker, E.; O'Sullivan, C. K.; Cremer, P. S. *ACS Sensors*, **2020**, 5, 1249-1250. DOI: 10.1021/acssensors.0c00875.
- 354 Remembering NJ
Gooding, J. J.; Mazur, A.; Bakker, E.; Kelley, S.; Sailor, M.; Merkx, M.; Mao, L.; Clark, H.; Maboudian, R.; Long, Y. *ACS Sensors*, **2020**, 5, 887-888. DOI: 10.1021/acssensors.0c00660.
- 353 Mátrafüred 2019 International Conference of Electrochemical Sensors
Bakker, E.; Buhlmann, P.; Gyurcsanyi, R.E.; Pretsch, E.; Wang, J. *Electroanalysis*, **2020**, 32, 667-668. DOI: 10.1002/elan.202080331.
- 352 Colorimetric Absorbance Mapping and Quantitation on Paper-Based Analytical Devices
Soda, Y.; Robinson, K. J.; Cherubini, T.; Bakker, E. *Lab on a Chip*, **2020**, 20, 1441-1448 . DOI: 10.1039/D0LC00028K.
- 351 Happy 5th Anniversary for ACS Sensors
Gooding, J. ; Bakker, E.; Kelley, S.; Tao, N. J.; Sailor, M.; Merkx, M.; Mao, L.; Clark, H. *ACS Sensors*, **2020**, 5, 1-2. DOI: 10.1021/acssensors.0c00023.
- 350 Direct Potentiometric Sensing of Anion Concentration (Not Activity)
Gao, W.; Xie, X.; Bakker, E. *ACS Sensors*, **2020**, 5, 313-318. DOI: 10.1021/acssensors.9b02523.
- 349 Optical Sensing with a Potentiometric Sensing Array by Prussian Blue Film Integrated Closed Bipolar Electrodes
Jansod, S.; Cherubini, T.; Soda, Y.; Bakker, E. *Anal. Chem.*, **2020**, 92, 9138-9145. DOI: 10.1021/acs.analchem.0c01421.
- 348 Spatial variability of arsenic speciation in the Gironde Estuary: emphasis on bioavailable (dynamic) inorganic arsenite and arsenate fractions
Penezic, A.; Tercier-Waeber, M.-L.; Abdou, M.; Bossy, C.; Dutruch, L.; Bakker, E.; Schäfer, J. *Marine Chemistry*, **2020**, 223, 103804. DOI: 10.1016/j.marchem.2020.103804.
- 347 Potentiometric Sensor Array with Multi-Nernstian Slope
Zdrachek, E.; Bakker, E. *Anal. Chem.*, **2020**, 92, 2926-2930. DOI: 10.1021/acs.analchem.9b05187.

- 346 Thin Layer Membrane Systems as Rapid Development Tool for Potentiometric Solid Contact Ion-Selective Electrodes
Forrest, T.; Zdrachek, E.; Bakker, E. *Electroanalysis*, **2020**, 32, 799-804. DOI: 10.1002/elan.201900674.
- 345 Ultra-Sensitive Seawater pH Measurement by Capacitive Readout of Potentiometric Sensors
Kraikaew, P.; Jeanneret, S.; Soda, Y.; Cherubinini, T.; Bakker, E. *ACS Sensors*, **2020**, 5, 650-654. DOI: 10.1021/acssensors.0c00031.
- 344 Quantification of Colorimetric Data for Paper-Based Analytical Devices
Soda, Y.; Bakker, E. *ACS Sensors*, **2020**, 4, 3093-3101. DOI: 10.1021/acssensors.9b01802.
- 343 Tunable detection range of ion-selective nano-optodes by controlling solvatochromic dye transducer lipophilicity
Wang, L.; Bakker, E. *Chem. Commun.*, **2019**, 55, 12539-12542. DOI: 10.1039/C9CC06729A.
- 342 A Solid-State Reference Electrode Based on a Self-Referencing Pulstrode
Gao, W.; Zdrachek, E.; Xie, X.; Bakker, E. *Angew. Chem. Int. Ed.*, **2020**, 59, 2294-2298. DOI: 10.1002/anie.201912651.
- 341 An Ode to You, Reviewer for ACS Sensors
Bakker, E. *ACS Sensors*, **2019**, 4, 1964. DOI: 10.1021/acssensors.9b01481.
- 340 Equipment-Free Detection of K⁺ on Paper
Soda, Y.; Citterio, D.; Bakker, E. *Chimia*, **2019**, 73, 944. DOI: 10.2533/chimia.2019.944.
- 339 Renewable magnetic ion-selective colorimetric microsensors based on surface modified polystyrene beads
Apichai, S.; Wang, L.; Grudpan, K.; Bakker, E. *Anal. Chim. Acta*, **2020**, 1094, 136-141. DOI: 10.1016/j.aca.2019.10.011.
- 338 Closed Bipolar Electrode Colorimetric Transduction of Potentiometric PVC-Based Membrane Electrodes
Jansod, S.; Bakker, E. *ACS Sensors*, **2019**, 4, 1008-1016. DOI: 10.1021/acssensors.9b00179.
- 337 ECL Readout for Chronopotentiometric Sensors
Gao, W.; Jeanneret, S.; Yuan, D.; Cherubini, T.; Wang, L.; Xie, X.; Bakker, E. *Anal. Chem.*, **2019**, 91, 4889–4895. DOI: 10.1021/acs.analchem.9b00787.
- 336 From Molecular and Emulsified Ion Sensors to Membrane Electrodes: Molecular and Mechanistic Sensor Design
Zdrachek, E.; Bakker, E. *Acc. Chem. Res.*, **2019**, 52, 1400-1408. DOI: 10.1021/acs.accounts.9b00056.
- 335 Simplified Fabrication for Ion-Selective Optical Emulsion Sensor with Hydrophobic Solvatochromic Dye Transducer: A Cautionary Tale
Wang, L.; Sadler, S.; Cao, T.; Xie, X.; Bakker, E. *Anal. Chem.*, **2019**, 91, 8973-8978. DOI: 10.1021/acs.analchem.9b01145.
- 334 Equipment-Free Detection of K⁺ on Microfluidic Paper-based Analytical Devices Based on Exhaustive Replacement with Ionic Dye in Ion-selective Capillary Sensors
Soda, Y.; Citterio, D.; Bakker, E. *ACS Sensors*, **2019**, 4, 670-677. DOI: 10.1021/acssensors.8b01521.
- 333 Potentiometric Sensing
Zdrachek, E.; Bakker, E. *Anal. Chem.*, **2019**, 91, 2–26. DOI: 10.1021/acs.analchem.8b04681.
- 332 In-Line Seawater Phosphate Detection with Ion-Exchange Membrane Reagent Delivery
Sateanchok, S.; Pankratova, N.; Cuartero, M.; Cherubini, T.; Grudpan, K.; Bakker, E. *ACS Sensors*, **2018**, 3, 2455–2462. DOI: 10.1021/acssensors.8b01096.
- 331 Nucleic acid hybridization on an electrically reconfigurable network of gold-coated magnetic nanoparticles enables microRNA detection in blood
Tavallaie, R.; McCarroll, J.; Schuhmann, W.; Bakker, E.; Hibbert, D. B.; Kavallaris, M.; Gooding, J. J. *Nature Nanotechnology*, **2018**, 13, 1066–1071. DOI: 10.1038/s41565-018-0232-x.
- 330 So, you have a great new sensor. How will you validate it?
Bakker, E. *ACS Sensors*, **2018**, 3, 1431. DOI: 10.1021/acssensors.8b00798.

- 329 Paper-Supported Thin-layer Ion Transfer Voltammetry for Ion Detection
Ding, J.; Cherubini, T.; Yuan, D.; Bakker, E. *Sens. Actuators, B*, **2019**, 280, 69-76. DOI: 10.1016/j.snb.2018.10.046.
- 328 Fast Potentiometric CO₂ Sensor for High-resolution In situ Measurements in Fresh Water Systems
Athavale, R.; Pankratova, N.; Dinkel, C.; Bakker, E.; Wehrli, B.; Brand, A. *Environ. Sci. Technol.*, **2018**, 52, 11259-11266. DOI: 10.1021/acs.est.8b02969.
- 327 Editorial: Mátrafüred 2017 International Conference on Electrochemical Sensors
Bakker, E.; Buhlmann, P.; Gyurcsanyi, R.; Pretsch, E.; Wang, J. *Electroanalysis*, **2018**, 30, 594-595. DOI: 10.1002/elan.201880231.
- 326 Capacitive Model for Coulometric Readout of Ion-Selective Electrodes
Jarolimova, Z.; Han, T.; Vanamo, U.; Bobacka, J.; Bakker, E. *Anal. Chem.*, **2018**, 90, 8700-8707. DOI: 10.1021/acs.analchem.8b02145.
- 325 Ion-Exchange Microemulsions for Eliminating Dilute Interferences in Potentiometric Determinations
Apichai, S.; Wang, L.; Pankratova, N.; Grudpan, K.; Bakker, E. *Electroanalysis*, **2018**, 30, 2462-2466. DOI: 10.1002/elan.201800366.
- 324 Light addressable ion sensor for localized real-time monitoring of extracellular potassium
Yang, Y.; Cuartero, M.; Gonçalves, V.; Gooding, J.; Bakker, E. *Angew. Chem. Int. Ed.*, **2018**, 57, 16801-16805. DOI: 10.1002/anie.201811268.
- 323 Electrochemically Switchable Polymeric Membrane Ion-Selective Electrodes
Zdrachek, E.; Bakker, E. *Anal. Chem.*, **2018**, 90, 7591-7599. DOI: 10.1021/acs.analchem.8b01282.
- 322 Ion-Selective Electrodes
Bakker, E., *Encyclopedia of Analytical Science* (Third Ed.), Elsevier, 2019, 231-251. DOI: <https://doi.org/10.1016/B978-0-12-409547-2.14364-1>.
- 321 Colorimetric Readout for Potentiometric Sensors with Closed Bipolar Electrodes
Jansod, S.; Cuartero, M.; Cherubini, T.; Bakker, E. *Anal. Chem.*, **2018**, 90, 6376-6379. DOI: 10.1021/acs.analchem.8b01585.
- 320 Ion Transfer Voltammetry in Polyurethane Thin Films Based on Functionalised Cationic [6]Helicenes for Carbonate Detection
Jarolimova, Z.; Bosson, J.; Labrador, G. M.; Lacour, J.; Bakker, E. *Electroanalysis*, **2018**, 30, 1378-1385. DOI: 10.1002/elan.201800080.
- 319 Selective Distance-Based K⁺ Quantification on Paper-Based Microfluidics
Gerold, C. T.; Bakker, E.; Henry, C. S. *Anal. Chem.*, **2018**, 90, 4894-4900. DOI: 10.1021/acs.analchem.8b00559.
- 318 An exciting year ahead for ACS Sensors
Gooding, J.; Mazur, A.; Sailor, M.; Merckx, M.; Kelley, S.; Tao, N.; Long, T.; Bakker, E. *ACS Sensors*, **2018**, 3, 1-2. DOI: 10.1021/acssensors.8b00013.
- 317 Colorimetric Ionophore-Based Coextraction Titrimetry of Potassium Ions
Thajee, K.; Wang, L.; Grudpan, K.; Bakker, E. *Anal. Chim. Acta*, **2018**, 1029, 37-43. DOI: 10.1016/j.aca.2018.05.012.
- 316 In Situ Detection of Macronutrients and Chloride in Seawater by Submersible Electrochemical Sensors
Cuartero, M.; Crespo, G.; Cherubini, T.; Pankratova, N.; Confalonieri, F.; Massa, F.; Tercier-Waeber, M.L.; Abdou, M.; Schäfer, J.; Bakker, E. *Anal. Chem.*, **2018**, 90, 4702-4710. DOI: 10.1021/acs.analchem.7b05299.
- 315 Describing Ion Exchange at Membrane Electrodes for Ions of Different Charge
Zdrachek, E.; Bakker, E. *Electroanalysis*, **2018**, 30, 633-640. DOI: 10.1002/elan.201700700.
- 314 Ion Transfer Voltammetry at Thin Films Based on Functionalized Cationic [6]Helicenes
Jarolimova, Z.; Bosson, J.; Labrador, G. M.; Lacour, J.; Bakker, E. *Electroanalysis*, **2018**, 30, 650-657. DOI: 10.1002/elan.201700669.

- 313 Electron hopping between Fe 3d states in ethynylferrocene-doped poly(methyl methacrylate)-poly(decyl methacrylate) copolymer membranes
Cuartero, M.; Acres, R. G.; Jarolimova, Z.; Bakker, E.; Crespo, G. A.; De Marco, R. *Electroanalysis*, **2018**, *30*, 596-601. DOI: 10.1002/elan.201700510.
- 312 Surface modified polystyrene microsensors containing lipophilic solvatochromic dye transducers
Wang, L.; Xie, X.; Cao, T.; Szilagyi, I.; Bakker, E. *Chem. Eur. J.*, **2018**, *24*, 7921-7925. DOI: 10.1002/chem.201800077.
- 311 Agarose Hydrogel Containing Immobilized pH Buffer Microemulsion without Increasing Permselectivity
Coll Crespi, M.; Crespo, G. A.; Xie, X.; Touilloux, R.; Tercier-Waeber, M. L.; Bakker, E. *Talanta*, **2018**, *177*, 191-196. DOI: 10.1016/j.talanta.2017.08.053.
- 310 Fluorinated Tripodal Receptors for Potentiometric Chloride Detection in Biological Fluids
Pankratova, N.; Cuartero, M.; Jowett, L. A.; Howe, E. N.; Gale, P. A.; Bakker, E.; Crespo, G. A. *Biosens. Bioelectron.*, **2018**, *99*, 70-76. DOI: 10.1016/j.bios.2017.07.001.
- 309 Time-Dependent Determination of Unbiased Selectivity Coefficients of Ion-Selective Electrodes for Multivalent Ions
Zdrachek, E.; Bakker, E. *Anal. Chem.*, **2017**, *89*, 13441–13448. DOI: 10.1021/acs.analchem.7b03726.
- 308 Should There be Minimum Information on Reporting Standards for Sensors?
Gooding, J. J.; Sailer, M. J.; Kelley, S.; Merkx, M.; Bakker, E.; Long, Y. T.; Tao, N. J. *ACS Sensors*, **2017**, *2*, 1377–1379. DOI: 10.1021/acssensors.7b00737.
- 307 In Situ Detection of Species Relevant to the Carbon Cycle in Seawater with Submersible Potentiometric Probes
Cuartero, M.; Pankratova, N.; Crespo, G. A.; Cherubini, T.; Massa, F.; Confalonieri, F.; Bakker, E. *Environ. Sci. Technol. Lett.*, **2017**, *4*, 410–415. DOI: 10.1021/acs.estlett.7b00388.
- 306 Electrochemical ion transfer mediated by a lipophilic Os(II)/Os(III) dinonyl bipyridyl probe incorporated in thin film membranes
Jansod, S.; Wang, L.; Cuartero, M.; Bakker, E. *Chem. Commun.*, **2017**, *53*, 10757-10760. DOI: 10.1039/C7CC05908F.
- 305 August 2017: Two years of submissions
Gooding, J. J.; Tao, N.; Kelley, S.; Merkx, M.; Sailer, M.; Bakker, E.; Long, Y.; Mazur, A. *ACS Sensors*, **2017**, *2*, 1068–1069. DOI: 10.1021/acssensors.7b00539.
- 304 Celebrating Electrochemical Sensors at the 2017 Matrafured Meeting
Bakker, E. *ACS Sensors*, **2017**, *2*, 854–854. DOI: 10.1021/acssensors.7b00452.
- 303 Overcoming Pitfalls in Boundary Elements Calculations with Computer Simulations of Ion Selective Membrane Electrodes
Yuan, D.; Bakker, E. *Anal. Chem.*, **2017**, *89*, 7828–7831. DOI: 10.1021/acs.analchem.7b01777.
- 302 Environmental Water Analysis with Membrane Electrodes
Cuartero, M.; Bakker, E. *Current Opinion in Electrochemistry*, **2017**, *3*, 97-105. DOI: 10.1016/j.coelec.2017.06.010.
- 301 Robust Solid-contact Ion Selective Electrodes for High-Resolution In-Situ Measurements in Fresh Water Systems
Athavale, R.; Dinkel, C.; Wehrli, B.; Bakker, E.; Crespo, G. A.; Brand, A. *Environ. Sci. Technol. Lett.*, **2017**, *4*, 286–291. DOI: 10.1021/acs.estlett.7b00130.
- 300 Reflecting on how ACS Sensors can help advance the field of sensing
Gooding, J.; Long, Y.-T.; Tao, N.; Kelley, S.; Merkx, M.; Sailer, M.; Bakker, E. *ACS Sensors*, **2017**, *2*, 455–456. DOI: 10.1021/acssensors.7b00240.
- 299 Ionophore-Based Titrimetric Detection of Alkali Metal Ions in Serum
Zhai, J.; Xie, X.; Cherubini, T.; Bakker, E. *ACS Sensors*, **2017**, *2*, 606–612. DOI: 10.1021/acssensors.7b00165.

- 298 Welcome to the first anniversary issue of ACS Sensors
Gooding, J. J.; Bakker, E.; Long, Y.-T.; Tao, N.; Kelley, S.; Merkx, M.; Sailer, M.; Mazur, A. *ACS Sensors*, **2017**, 2, 1–2. DOI: 10.1021/acssensors.7b00004.
- 297 Electrochemical Mechanism of Ferrocene-Based Redox Molecules in Thin Film Membrane Electrodes
Cuartero, M.; Acres, R. G.; Bradley, J.; Jarolimova, Z.; Wang, L.; Bakker, E.; Crespo, G. A.; De Marco, R. *Electrochim. Acta*, **2017**, 238, 357–367. DOI: 10.1016/j.electacta.2017.04.047.
- 296 In-line Acidification for Potentiometric Sensing of Nitrite in Natural Waters
Pankratova, N.; Cuartero, M.; Crespo, G.; Bakker, E. *Anal. Chem.*, **2017**, 89, 571–575. DOI: 10.1021/acs.analchem.6b03946.
- 295 Reversible pH-independent optical potassium sensor with lipophilic solvatochromic dye transducer on surface modified microporous nylon
Wang, L.; Xie, X.; Zhai, Z.; Bakker, E. *Chem. Commun.*, **2016**, 52, 14254 - 14257. DOI: 10.1039/C6CC07841A.
- 294 Voltammetric Thin Layer Ionophore Based Films: Part 2. Semi-Empirical Treatment
Yuan, D.; Cuartero, M.; Crespo, G. A.; Bakker, E. *Anal. Chem.*, **2017**, 89, 595–602. DOI: 10.1021/acs.analchem.6b03355.
- 293 Voltammetric Thin Layer Ionophore Based Films: Part 1. Experimental Evidence and Numerical Simulations
Yuan, D.; Cuartero, M.; Crespo, G. A.; Bakker, E. *Anal. Chem.*, **2017**, 89, 586–594. DOI: 10.1021/acs.analchem.6b03354.
- 292 Wearable Sensors – An Exciting Area of Research for Sensor Scientists
Bakker, E.; Gooding, J. J. *ACS Sensors*, **2016**, 1, 834–834. DOI: 10.1021/acssensors.6b00423.
- 291 Evidence of Double Layer/Capacitive Charging in Carbon Nanomaterial-Based Solid Contact Polymeric Ion-Selective Electrodes
Cuartero, M.; Bishop, J.; Walker, R.; Acres, R. G.; Bakker, E.; De Marco, R.; Crespo, G. A. *Chem. Commun.*, **2016**, 52, 9703–9706. DOI: 10.1039/C6CC04876E.
- 290 Direct Sensing of Total Alkalinity Profile in a Stratified Lake
Ghahraman Afshar, M.; Tercier-Waeber, M. L.; Wehrli, B.; Bakker, E. *Geochem. Persp. Lett.*, **2017**, 3, 85–93. DOI: 10.7185/geochemlet.1709.
- 289 Can Calibration-free Sensors be Realized?
Bakker, E. *ACS Sensors*, **2016**, 1, 838–841. DOI: 10.1021/acssensors.6b00247.
- 288 Should ACS Sensors publish papers on fluorescent sensors for metal ions at all?
Gooding, J. J.; Bakker, E.; Kelley, S. *ACS Sensors*, **2016**, 1, 324–325. DOI: 10.1021/acssensors.6b00213.
- 287 Complexometric Titrations: New Reagents and Concepts to Overcome Old Limitations
Zhai, J.; Bakker, E. *Analyst*, **2016**, 141, 4252–4261. DOI: 10.1039/C6AN00538A.
- 286 Electrochemical Ion Transfer With Thin Films of Poly(3-octylthiophene)
Cuartero, M.; Acres, R. G.; De Marco, R.; Bakker, E.; Crespo, G. A. *Anal. Chem.*, **2016**, 88, 6939–6946. DOI: 10.1021/acs.analchem.6b01800.
- 285 Polyurethane Ionophore-Based Thin Layer Membranes for Voltammetric Ion Activity Sensing
Cuartero, M.; Crespo, G. A.; Bakker, E. *Anal. Chem.*, **2016**, 88, 5649–5654. DOI: 10.1021/acs.analchem.6b01085.
- 284 What Should an ACS Sensors Paper Look Like?
Gooding, J. J.; Kelley, S.; Bakker, E.; Long, Y.; Tao, N. J. *ACS Sensors*, **2016**, 1, 102–103. DOI: 10.1021/acssensors.6b00086.
- 283 Welcome to ACS Sensors
Gooding, J. J.; Kelley, S. O.; Bakker, E.; Long, Y.; Tao, N.; Mazur, A. I. *ACS Sensors*, **2016**, 1, 1–2. DOI: 10.1021/10.1021/acssensors.6b00015.

- 282 Alkalinization of Thin Layer Samples with a Selective Proton Sink Membrane Electrode for Detecting Carbonate by Carbonate-Selective Electrodes
Jansod, S.; Ghahraman Afshar, M.; Crespo, G.; Bakker, E. *Anal. Chem.*, **2016**, *88*, 3444–3448. DOI: 10.1021/acs.analchem.6b00346.
- 281 Determination of pKa Values of Hydrophobic pH Sensitive Colorimetric Probes in Nanospheres
Xie, X.; Zhai, J.; Jarolimova, Z.; Bakker, E. *Anal. Chem.*, **2016**, *88*, 3015–3018. DOI: 10.1021/acs.analchem.5b04671.
- 280 Selective Imaging of Late Endosomes with a pH-Sensitive Diazaoxatriangulene Fluorescent Probe
Wallabregue, A.; Moreau, D.; Sherin, P.; Moneva, P.; Jarolimova, Z.; Bakker, E.; Vauthey, E.; Gruenberg, J.; Lacour, J. *J. Am. Chem. Soc.*, **2016**, *138*, 1752–1755. DOI: 10.1021/jacs.5b09972.
- 279 Ion-Selective Optical Nanosensors based on Solvatochromic Dyes with Different Lipophilicity: From Bulk Partitioning to Interfacial Accumulation
Xie, X.; Szilagyi, I.; Zhai, J.; Wang, L.; Bakker, E. *ACS Sensors*, **2016**, *1*, 516–520. DOI: 10.1021/acssensors.6b00006.
- 278 Electroanalysis with Membrane Electrodes and Liquid-Liquid Interfaces
Bakker, E. *Anal. Chem.*, **2016**, *88*, 395–413. DOI: 10.1021/acs.analchem.5b04034.
- 277 Flow Chronopotentiometry with Ion-Selective Membranes for Cation, Anion and Polyion Detection
Ghahraman Afshar, M.; Crespo, G. A.; Bakker, E. *Anal. Chem.*, **2016**, *88*, 3945–3952. DOI: 10.1021/acs.analchem.6b00141.
- 276 Ionophore Based Voltammetric Ion Activity Sensing with Thin Layer Membranes
Cuartero, M.; Crespo, G. A.; Bakker, E. *Anal. Chem.*, **2016**, *88*, 1654–1660. DOI: 10.1021/acs.analchem.5b03611.
- 275 Solvatochromic dyes as pH independent indicators for ionophore emulsion based complexometric titrations
Zhai, J.; Xie, X.; Bakker, E. *Anal. Chem.*, **2015**, *87*, 11587–11591. DOI: 10.1021/acs.analchem.5b03526.
- 274 Phenytoin Drug Speciation Analysis with Ion-Selective Membranes
Jansod, S.; Ghahraman Afshar, M.; Crespo, G. A.; Bakker, E. *Biosens. Bioelectron.*, **2016**, *79*, 114–120. DOI: 10.1016/j.bios.2015.12.011.
- 273 Ion-selective Fluorescent and pH Independent Nanosensors Based on Functionalized Polyether Macrocycles
Jarolimova, Z.; Mahesh, V.; Lacour, J.; Bakker, E. *Chem. Sci.*, **2016**, *7*, 525–533. DOI: 10.1039/C5SC03301B.
- 272 Local Acidification of the Membrane Surface for Potentiometric Measurements of Anions in Environmental Samples
Pankratova, N.; Ghahraman Afshar, M.; Yuan, D.; Crespo, G. A.; Bakker, E. *ACS Sensors*, **2016**, *1*, 48–54. DOI: 10.1021/acssensors.5b00015.
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