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EDUCATION

Massachusetts Institute of Technology/ Woods Hole Oceanographic Institution Joint Program,
Cambridge, MA, Ph.D. in Oceanography, May 1988.

Harvard University, Cambridge, MA, A.M. in Chemistry, January 1981.

Cornell University, Ithaca, NY, A.B. in Chemistry, June 1979.

PROFESSIONAL EXPERIENCE

Eawag, Swiss Federal Institute of Aquatic Science & Technology, Director (2007-present)

Swiss Federal Institute of Technology, Lausanne, Professor of Environmental Chemistry, School
of Architecture, Civil and Environmental Engineering (ENAC) (2010-present)

Swiss Federal Institute of Technology, Zürich, Professor of Environmental Biogeochemistry,
Department of Environmental Science (D-UWIS) (2007-present)

California Institute of Technology, Environmental Science & Engineering Department, Visiting
Associate (2009-2011), Professor (2002-2008), Associate Professor (1996-2002); Executive
Officer, Keck Laboratories for Bioengineering, Environmental Science & Engineering, and
Materials Science (2003-2006).

University of California, Los Angeles, Civil and Environmental Engineering Department, Adjunct
Professor (1997-1999), Associate Professor (1995-1996), Assistant Professor (1991-1995).

Institute for Water Resources and Water Pollution Control (EAWAG), Dübendorf,
Switzerland, Chemistry Department, Postdoctoral Researcher (1988-1991).

Massachusetts Institute of Technology, Cambridge, MA, Ralph M. Parsons Laboratory for Water
Resources and Hydrodynamics, Department of Civil Engineering, Research and Teaching
Assistant (1982-1988).

Harvard University, Cambridge, MA, Chemistry Department, Research and Teaching Assistant
(1979-1981).

Cornell University, Ithaca, NY, Chemistry Department, Teaching Assistant (1978-1979).

Mobil Oil Research and Development Corporation, Princeton, NJ, Summer Research Intern
(Summer 1978).

RESEARCH INTERESTS

Knowledge exchange at the interface of science with policy and practice

Biogeochemical cycling of trace metals and metalloids: microbial redox cycling; field studies of
metal redox cycling, mobilization, and sequestration

Mineral weathering and reactions at mineral surfaces: mechanisms and kinetics of dissolution and
precipitation reactions; macroscopic, spectroscopic, and modeling studies of sorption processes

Water treatment processes for removal of inorganic contaminants: role of sorption in contaminant
removal; design of novel sorbents

SELECTED ACTIVITIES

2018, laureate, Clarke Water Prize

2018 to present, member, advisory committee to the IRGC Foundation

2018 to present, member, advisory board for Sustainability Research SCNAT (and Future Earth
National Committee)

2018 to present, member, advisory board for td-net SCNAT

2018 to present, member, IWA Global Water Award jury

2018 to present Fellow, the Geochemical Society and European Association of Geochemistry

2017 to present member, scientific advisory board, Ernst Strüngmann Forum, Frankfurt am Main,
Germany

2017 Chair, Evaluation Panel "Instrument Leibniz-Forschungsverbund"

2017 to present Honorary Fellow, IHE Delft, the Netherlands
2017 to present foreign member, Russian Academy of Natural Sciences
2016 to present member, Swiss National Science Foundation Council
2016 jury member, Microbials program, Gebert Rűf Foundation, Switzerland
2015 to present member, U.S. National Academy of Engineering
2015 recipient, IUPAC 2015 Distinguished Women in Chemistry or Chemical Engineering Awards, awarded at the 45th World Chemistry Congress, 9-14 August, Busan, South Korea.
2015 chair, evaluation committee for Programme area 2 Water resources (2007-2014) at the Geological Survey of Denmark and Greenland (GEUS), 26-29 May, Copenhagen, Denmark.
2010 to present Member, Board of Reviewing Editors, *Science*
2009 to present Chair, 2008-2009, Member, Advisory Board, Leibniz Institute of Freshwater Ecology and Inland Fisheries, Berlin, Germany.
2008 to present member, GAIA Advisory Board
Reviewer: *Environmental Science and Technology, Geochimica et Cosmochimica Acta, Deep-Sea Research, Journal of Environmental Engineering ASCE, Colloids and Surfaces, Journal of Physical Chemistry, Journal of the American Water Works Association, Nature, Separation Science and Technology, Water Environment Research*, U.S. National Science Foundation, U.S. Department of Energy, U.S. Department of Defense, U.S. Environmental Protection Agency, ACS/Petroleum Research Fund, Swiss National Science Foundation

SELECTED RECENT PUBLICATIONS

Research publications

- Hering, J.G. (2018) "Drink safely with biomimetic nanotechnology" (News and Views), *Nature Nanotechnology*, DOI: 10.1038/s41565-018-0326-5.
- Hering, J.G. (2018) "Women as Leaders in Academic Institutions: Personal Experience and Narrative Literature Review", *Pure App. Chem*, xx:xx, <https://doi.org/10.1515/pac-2018-0603>.
- Biswakarma, J., Kang, K., Borowski, S., Schenkeveld, W., Kraemer, S., Hering, J.G., Hug, S., (2018) "Fe(II)-catalyzed ligand-controlled dissolution of iron(hydr)oxides", *Environ. Sci. Technol.* xxx.
- Borowski, S.C., Biswakarma, J., Kang, K., Schenkeveld, W.D., Hering, J.G., Kubicki, J.D., Kraemer, S.M. and Hug, S.J. (2018) "Structure and reactivity of oxalate surface complexes on lepidocrocite derived from infrared spectroscopy, DFT-calculations, adsorption, dissolution and photochemical experiments", *Geochim. Cosmochim. Acta*, <https://doi.org/10.1016/j.gca.2018.01.024>
- Senn, A.C., Hug, S.J., Kaegi, R., Hering, J.G. and Voegelin, A. (2018) "Arsenate co-precipitation with Fe(II) oxidation products and retention or release during precipitate aging", *Water Research*, 131: 334-345.
- Hering, J.G., Katsoyiannis, I.A., Ahumada Theoduloz, G., Berg, M. and Hug, S.J. (2017) "Arsenic removal from drinking water: Experiences with technologies and constraints in practice", *J. Environ. Eng ASCE*, DOI: 10.1061/(ASCE)EE.1943-7870.000122.
- Hoffmann, S, Pohl, C. and Hering J.G. (2017) "Methods and procedures of transdisciplinary knowledge integration: empirical insights from four thematic synthesis processes", *Ecology and Society*, 22 (1):27, URL: <http://www.ecologyandsociety.org/vol22/iss1/art27/>.
- Hoffmann, S, Pohl, C. and Hering J.G. (2017) "Exploring transdisciplinary integration within a large research program: empirical lessons from four thematic synthesis processes", *Research Policy*, <http://dx.doi.org/10.1016/j.respol.2017.01.004>.
- Senn, A.C., Kaegi, R., Hug, S.J., Hering, J.G., Mangold, S. and Voegelin, A. (2017) "Effect of aging on the structure and phosphate retention of Fe(III)-precipitates formed by Fe(II) oxidation in water", *Geochim. Cosmochim. Acta*, **202**: 341–360, <http://dx.doi.org/10.1016/j.gca.2016.12.033>.
- Senn, A.C., Kaegi, R., Hug, S.J., Hering, J.G., Mangold, S. and Voegelin, A. (2015) "Composition and structure of Fe(III)-precipitates formed by Fe(II) oxidation in water: Interdependent effects of phosphate, silicate and Ca", *Geochim. Cosmochim. Acta*, 162: 220-246, DOI: 10.1016/j.gca.2015.04.032.

- Kunz, N., Fischer, M., Ingold, K., Hering, J.G., (2015) “Why do some water utilities recycle more than others? A Qualitative Comparative Analysis in New South Wales, Australia”, *Environ. Sci. Technol.* 49: 8287–8296, DOI: 10.1021/acs.est.5b01827.
- Rudolf von Rohr, M., Hering, J.G., Kohler, H.-P.E., von Gunten, U. (2014) “Column studies to assess the effects of climate variables on redox processes during riverbank filtration”, *Water Research*, 61: 263-275, DOI: 10.1016/j.watres.2014.05.018.
- Diem, S., Rudolf von Rohr, M., Hering, J.G., Kohler, H.P., Schirmer, M., von Gunten, U. (2013) “Dynamics of NOM degradation during riverbank filtration and its role in a changing climate”, *Water Research*, 47: 6585-6595, dx.doi.org/10.1016/j.watres.2013.08.028.
- Farnsworth, C.E., Voegelin, A. and Hering, J.G. (2012) “Manganese oxidation induced by water table fluctuations in a sand column”, *Environ. Sci. Technol.* 46: 277-284, DOI: 10.1021/es2027828.

Reviews, synthesis and perspectives

- Hering, J.G., Nunnemacher, L. and von Waldow, H., Perspectives from a Water Research Institute on Knowledge Management for Sustainable Water Management“, in *Handbook of Knowledge Management for Sustainable Water Systems*, (Series *Challenges in Water Management*), M. Russ (Ed.) Wiley, New York, in press (preprint available at: <https://osf.io/j4cf7>).
- Hering, J.G. and Vairavamorthy, K., “Harvesting Experience to Support Sustainable Urban Water Management” in *Assessing Water Megatrends* (working title), A.K. Biswas and C. Tortajada (Eds.), Springer, Berlin, in press (preprint available at: <https://osf.io/zuwnr>).
- Hering, J.G. (2017) “Maintaining Trust and Objectivity in the Context of Use-Inspired Research” (letter to the editor), *Environ. Sci. Technol.* DOI: 10.1021/acs.est.6b05825.
- Hering, J.G., Maag, S. and Schnoor, J.L. (2016) “A Call for Synthesis of Water Research to Achieve the Sustainable Development Goals by 2030” (Viewpoint) *Environ. Sci. Technol.* 50: 6122–6123, DOI: 10.1021/acs.est.6b02598.
- Hering, J.G., Giger, W., Hug, S.J., Kohler, H.P.E., Kretzschmar, R., Schwarzenbach, R., Sigg, L., Sulzberger, B., von Gunten, U., Zehnder, A.J.B. and Zobrist, J. (2016) “An American in Zurich: Jerry Schnoor as an Ambassador for U.S. Environmental Science and Engineering” (perspective), *Environ. Sci. Technol.* 50: 6597–6598, DOI: 10.1021/acs.est.5b06233.
- Hering, J.G., Sedlak, D.L., Tortajada, C., Biswas, A.K., Niwagaba, C. and Breyer, T. (2015) “Local perspectives on water” *Science*, 349:479–480, DOI: 10.1126/science.aac5902 (policy forum)
- Hering, J.G. (2015) “Do We Need More Research or Better Implementation through Knowledge Brokering?” *Sustainability Science*, DOI: 10.1007/s11625-015-0314-8.
- Tilley, E., Trande, L., Lüthi, C., Mosler, H.-J., Udert, K.M. Gebauer, H. and Hering, J.G. (2014) “Looking beyond technology: an integrated approach to water, sanitation and hygiene in low income countries” (Feature), *Environ. Sci. Technol.*, 48: 9965-9970, DOI: 10.1021/es501645d
- Hering, J.G., Dzombak, D.A., Green, S.A., Luthy, R.G. and Swackhamer, D. (2014) “Engagement at the Science–Policy Interface” (Viewpoint) *Environ. Sci. Technol.*, 48: 11031–11033, DOI: 10.1021/es504225t
- Hering, J.G., Waite, T.D., Luthy, R., Drewes, J., and Sedlak, D. (2013) “A Changing Framework for Urban Water Systems”, *Environ. Sci. Technol.*, 47: 10721-10726, dx.doi.org/10.1021/es4007096.
- Hering, J.G. and Ingold, K.M. (2012) “Water Resources Management: What Should Be Integrated?”, *Science*, 336: 1234-5.
- Hering, J.G., Hoffmann, S., Meierhofer, R., Schmid, M., and Peter, A. (2012) “Assessing the Societal Benefits of Applied Research and Expert Consulting in Water Science and Technology”, *GAIA*, 21 (2) 95-101.
- Hering, J., Hoehn, E., Klinke, A., Maurer, M., Peter, A., Reichert, P., Robinson, C., Schirmer, K., Schirmer, M., Stamm, C., and Wehrli, B. (2012) “Moving Targets, Long-Lived Infrastructure, and Increasing Needs for Integration and Adaptation in Water Management: An Illustration from Switzerland”, *Environ. Sci. Technol.*, 46: 112-118, DOI: 10.1021/es202189s.

Books

- Morel, F.M.M. and J.G.Hering (1993) *Principles and Applications of Aquatic Chemistry*, Wiley-Interscience, New York, 588 pp.