Supporting Information

Opportunities for Nanotechnology to Enhance Electrochemical Treatment of Pollutants in Potable Water and Industrial Wastewater -A perspective

Sergi Garcia-Segura[a,], Xiaolei Qu[b], Pedro J.J. Alvarez[c], Brian P. Chaplin[d], Wei Chen[e], John C Crittenden[f], Yujie Feng[g], Guandao Gao[b], Zhen He[h], Chia-Hung Hou[i], Xiao Hu[j], Guibin Jiang[k], Jae-Hong Kim[l], Jiansheng Li[m], Qilin Li[c], Jie Ma[n], Jinxing Ma[o], Alec Brockway Nienhauser[a], Junfeng Niu[p], Bingcai Pan[b], Xie Quan[q], Filippo Ronzani[r], Dino Villagran[s], T. David Waite[o], W. Shane Walker[s], Can Wang[t], Michael S. Wong[c], Paul Westerhoff[a,**]*

[a]*Nanosystems Engineering Research Center for Nanotechnology-Enabled Water Treatment, School of Sustainable Engineering and the Built Environment, Arizona State University, Tempe, Arizona 85287-5306, United States of America*
[b]*State Key Laboratory of Pollution Control and Resource Reuse, School of the Environment, Nanjing University, Jiangsu 210023, China*
[c]*Nanosystems Engineering Research Center for Nanotechnology-Enabled Water Treatment, Rice University, Houston, TX 77005, United States of America*
[d]*University of Illinois at Chicago, 945 West Taylor St, Chicago, IL 60608, United States of America*
[e]*Nankai University, 38 Tongyan Rd., Tianjin, 300350, China*
[f]*Georgia Institute of Technology, School of Civil and Environmental Engineering, 828 West Peachtree St., Suite 303, Atlanta, Georgia 30332-0595, United States of America*
[g]*State Key Lab of Urban Water Resources and Environment, School of Environment, Harbin Institute of Technology,No. 73 Huanghe Road, Harbin 150090, China*
[h]*Washington University in St. Louis, St. Louis, MO 63130, United States of America*
[i]*National Taiwan University, No. 1 Sec. 4. Roosevelt Rd., Taipei 10617, Taiwan*
[j]*Nanyang Technological University, Singapore*
[k]*State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, P. O. Box 2871, 18 Shuangqing Road, Haidian District, Beijing, 100085 China*
[l]*Nanosystems Engineering Research Center for Nanotechnology-Enabled Water Treatment, Department of Chemical and Environmental Engineering and, Yale University, 17 Hillhouse Avenue, New Haven, Connecticut, United States of America*
[m]*Nanjing University of Science and Technology, Xiaolingwei 200, Nanjing 210094, China*
[n]*State Key Laboratory of Heavy Oil Processing, Beijing Key Lab of Oil & Gas Pollution Control, China University of Petroleum-Beijing, Beijing 102249, China*
[o]*University of New South Wales, Sydney, NSW 2052, Australia*
[p]*Research Center for Eco-environmental Engineering, Dongguan University of Technology, Dongguan 523808, China*
[q]*School of Environmental and Biological Science and Technology, Dalian University of Technology, Dalian 116024, China*
[r]*Industrie De Nora s.p.a., De Nora Tech llc, 7590 Discovery Lane, Concord, Ohio 44077, United States of America*
[s]*Nanosystems Engineering Research Center for Nanotechnology-Enabled Water Treatment, University of Texas at El Paso, 500 W. University Ave, El Paso, TX 79968*

Corresponding author:

**E-mail address: p.westerhoff@asu.edu (P. Westerhoff).*

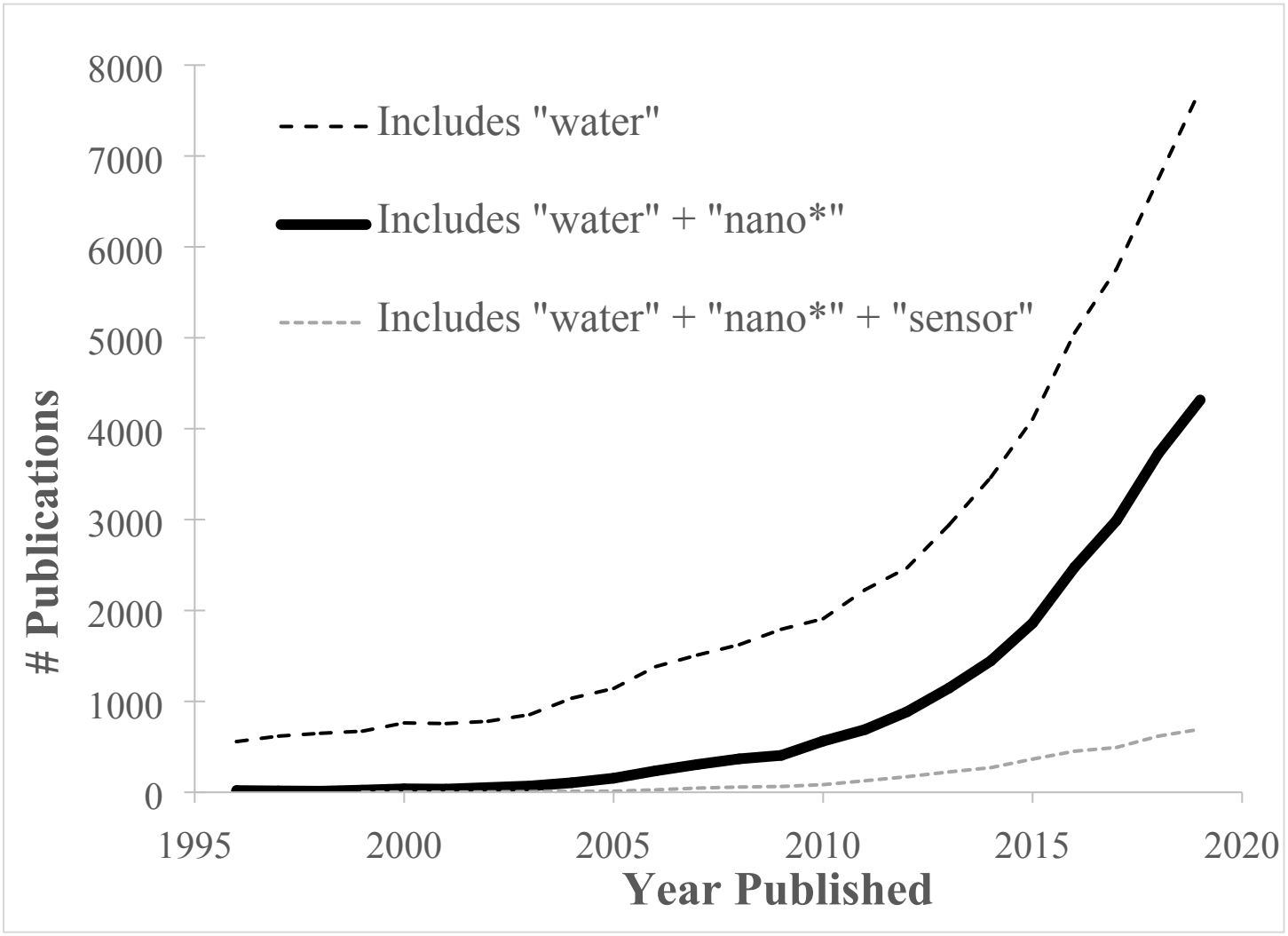

Figure SI 1. Number of publications on electrochemical water treatment and the increasing relevance of nanotechnology in the field.

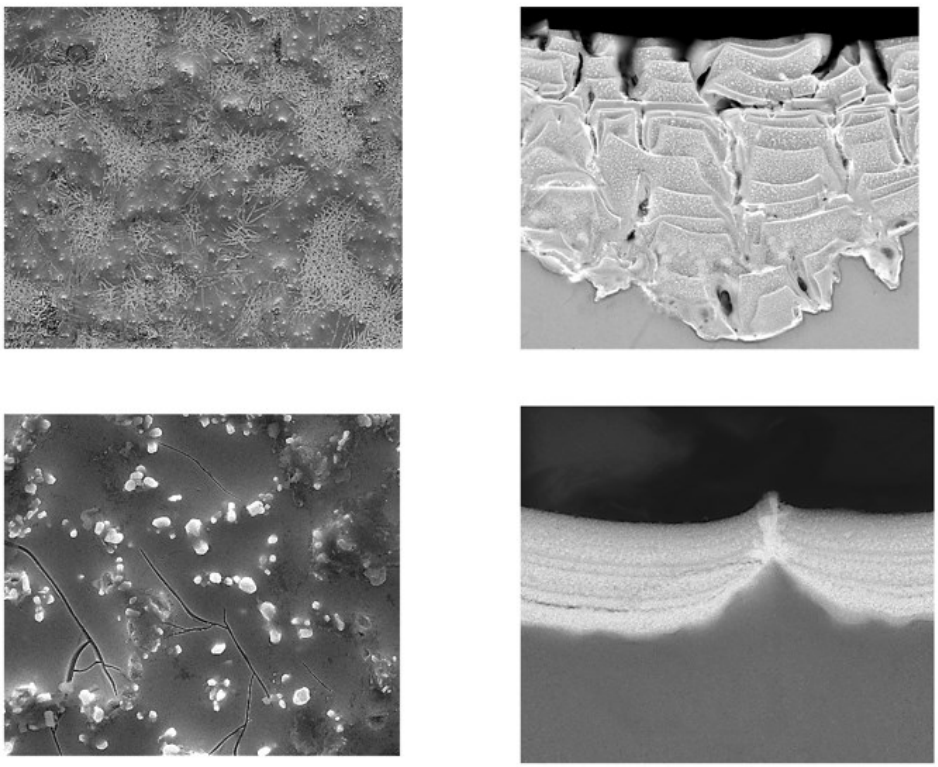

Figure SI 2. Micrographs of commercial DSA® electrodes.

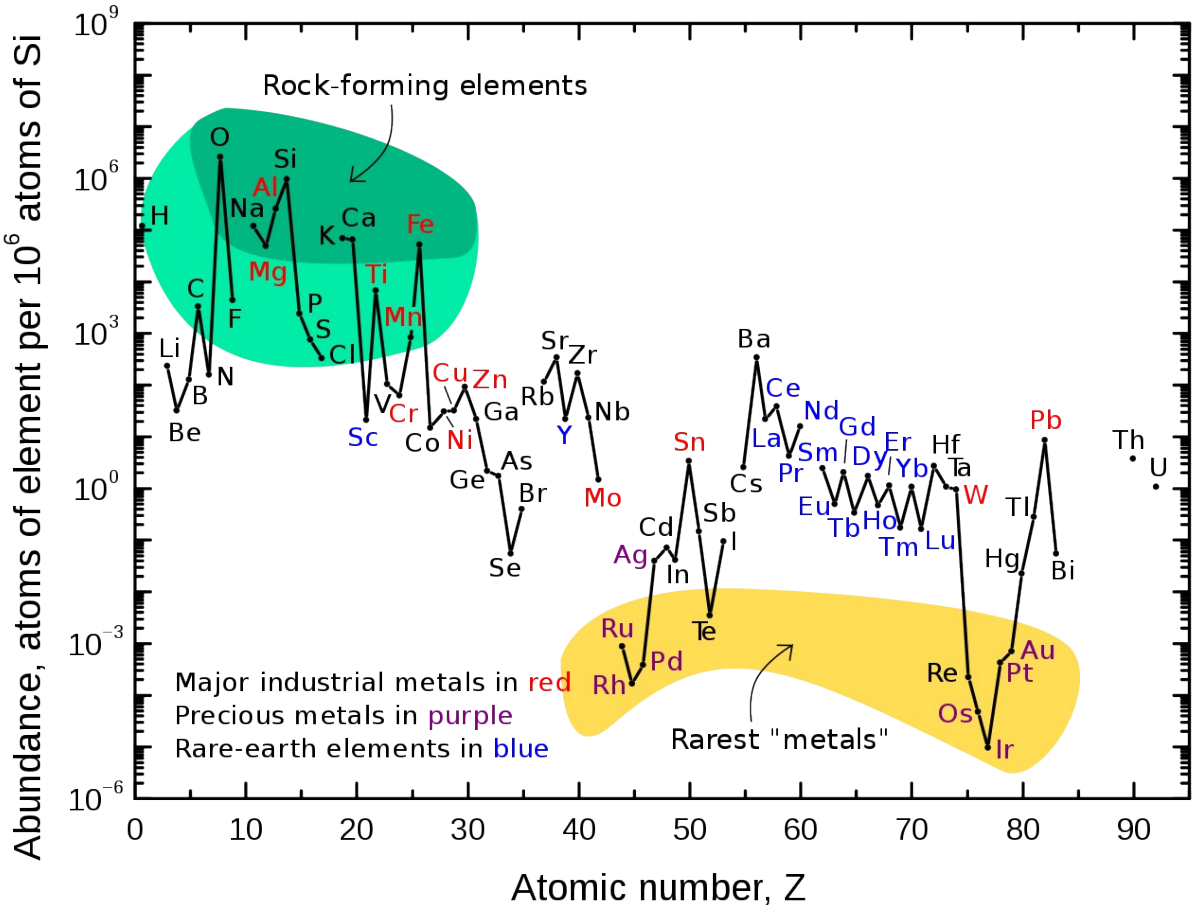

Figure SI 3. Critical resources for electrocatalysis. Abundance (atom fraction) of the chemical elements in Earth's upper continental crust as a function of atomic number. (source: https://pubs.usgs.gov/fs/2002/fs087-02/)