

## POSTER PRESENTATIONS

<b>Session I: Even Numbers</b>	
2	<p><a href="#"><u>Electron Spin Effects in Extracellular Respiration</u></a>  <b>Sukenik N.</b><sup>1,2</sup>, <b>Niman C.M.</b><sup>1</sup>, <b>Dang T.</b><sup>1</sup>, <b>Chaves M.S.</b><sup>1</sup>, <b>Nwachukwu J</b><sup>2</sup>, <b>Thirumurthy M.A.</b><sup>2</sup>, <b>Jones A.K.</b><sup>2</sup>, <b>Naaman R.</b><sup>3</sup>, <b>Santra K.</b><sup>3</sup>, <b>Das T.K.</b><sup>3</sup>, <b>Paltiel Y.</b><sup>4</sup>, <b>Baczewski L.T.</b><sup>5</sup>, <b>El-Naggar M.Y.</b><sup>1</sup></p> <p><sup>1</sup>University of Southern California, Los Angeles, California, USA  <sup>2</sup>Arizona State University, Tempe, Arizona, USA  <sup>3</sup>Weizmann Institute of Science, Rehovot, Israel  <sup>4</sup>The Hebrew University of Jerusalem, Jerusalem, Israel  <sup>5</sup>Polish Academy of Sciences, Warsaw, Poland</p>
4	<p><a href="#"><u>Extracellular Electron Transfer Efficiency is Regulated by the Biofilm Matrix</u></a>  <b>Jinyang, L.</b><sup>1</sup>, <b>Newman, D.K.</b><sup>1,2*</sup></p> <p><sup>1</sup>Division of Biology and Biological Engineering, Caltech, Pasadena, CA, USA  <sup>2</sup>Division of Geological and Planetary Sciences, Caltech, Pasadena, CA, USA</p>
6	<p><a href="#"><u>EET coupled Iron reduction– a Bacterial Pathogenesis Mechanism</u></a>  <b>Naradasu, D.</b><sup>1*</sup>, <b>Nobbs, A.H.</b><sup>1</sup>, <b>Akihiro, O.</b><sup>2</sup></p> <p><sup>1</sup>Oral Microbiology, University of Bristol, Bristol, United Kingdom  <sup>2</sup>National Institute for Materials Science, Tsukuba, Japan</p>
8	<p><a href="#"><u>Extracellular electron transfer in the oral microbiome: an electrochemical investigation on one of the key players in surface colonization for pathogenicity</u></a>  <b>Abuyen, K.</b><sup>1</sup>, <b>Warren, M.</b><sup>2</sup>, <b>Tjokro, N.</b><sup>3</sup>, <b>Sedghizadeh, P.</b><sup>3</sup>, <b>Chen, C.</b><sup>3</sup>, <b>El-Naggar, M.</b><sup>4**</sup></p> <p><sup>1</sup>Department of Biological Sciences, University of Southern California, Los Angeles, CA, USA  <sup>2</sup>Bridge Institute, USC, Los Angeles, CA, USA  <sup>3</sup>Herman Ostrow School of Dentistry, USC, Los Angeles, CA, USA  <sup>4</sup>Department of Physics and Astronomy, USC, Los Angeles, CA, USA</p>
10	<p><a href="#"><u>Unraveling the structure and electron transfer mechanisms in conductive cable bacteria</u></a>  <b>Coelho, A.</b><sup>1*</sup>, <b>Motiwala, Z.</b><sup>2,3</sup>, <b>Gati, C.</b><sup>2,3,4</sup> &amp; <b>El-Naggar, M.Y.</b><sup>1,3,4</sup></p> <p><sup>1</sup>Department of Physics and Astronomy, University of Southern California, Los Angeles, CA, USA  <sup>2</sup>Bridge Institute, University of Southern California, Los Angeles, CA, USA  <sup>3</sup>Department of Biological Sciences, University of Southern California, Los Angeles, CA, USA  <sup>4</sup>Department of Chemistry, University of Southern California, Los Angeles, CA, USA USA</p>
12	<p><a href="#"><u>Investigation of Electron Transfer in Protein Nanowires found in <i>Geobacter Sulfurreducens</i></u></a>  <b>Rezaei, S.</b><sup>1</sup>, <b>Mustafa, K.</b><sup>2</sup> &amp; <b>Hochbaum, A.</b><sup>2,3*</sup></p> <p><sup>1</sup>Department of Biological Sciences, UC Irvine, Irvine, CA, USA  <sup>2</sup>Department of Chemistry, UC Irvine, Irvine, CA, USA  <sup>3</sup>Department of Materials Science and Engineering, UC Irvine, Irvine, CA, USA</p>
14	<p><a href="#"><u>Tuning redox small molecule compounds for one stop electron delivery or cyclic mediation of flux to photosynthetic electron transport chains of PSII-less cells</u></a>  <b>Lewis, C.</b><sup>1*</sup>, <b>Torres, C.</b><sup>1</sup>, <b>Khdour, O.</b><sup>2</sup> &amp; <b>Fromme, P.</b><sup>3</sup></p> <p><sup>1</sup>ASU Biodesign Swette Center for Applied Biotechnology, Tempe, AZ, USA  <sup>2</sup>ASU Biodesign Center for Bioenergy 2, ASU Biodesign Center for Applied Structural Discovery Tempe, AZ, USA</p>
16	<p><a href="#"><u>Electronic Respiration in <i>Escherichia coli</i>.</u></a>  <b>Kundu, B.</b><sup>1*</sup> and <b>Ajo-Franklin, C.M.</b><sup>1,2</sup></p> <p><sup>1</sup>PhD Program in Systems, Synthetic, and Physical Biology, Rice University, Houston, TX, USA  <sup>2</sup>Department of Biosciences, Rice University, Houston, TX, USA</p>
18	<p><a href="#"><u>Unraveling the Mto pathway of the iron-oxidizing bacterium <i>Sideroxydans lithotrophicus ES-1</i></u></a>  <b>Paquete, C.M.</b><sup>1,2</sup>, <b>Coelho, A.</b><sup>1,a</sup>, <b>Jain, A.</b><sup>2</sup>, <b>Madjarov, J.</b><sup>1</sup>, <b>Todorovic, S.</b><sup>1</sup>, <b>Louro, R.O.</b><sup>1</sup>, <b>Gralnick, J.</b><sup>2</sup></p>

	<p><sup>1</sup> Instituto de Tecnologia Química e Biológica António Xavier, Universidade Nova de Lisboa, Portugal  <sup>2</sup> BioTechnology Institute and Department of Plant and Microbial Biology, University of Minnesota, USA  <sup>a</sup> now in University of Southern California, Los Angeles, CA, USA</p>
20	<p><a href="#">Different nanowires are required for different acceptors</a>  <b>Bond, D. R.<sup>1*</sup>, Ammend, M.<sup>1</sup>, &amp; Chan, C. H<sup>1</sup></b>  <sup>1</sup>BioTechnology Institute, Department of Plant and Microbial Biology, University of Minnesota-Twin Cities, St. Paul, MN, USA</p>
22	<p><a href="#">Characterization of genes involved in extracellular electron uptake in <i>Shewanella oneidensis</i> MR-1</a>  <b>Yu, J-S.<sup>1</sup>, Sackett, J.<sup>1</sup>, Cunnane, A.<sup>1</sup>, Rowe, A.R.<sup>1*</sup></b>  <sup>1</sup>University of Cincinnati, Cincinnati, OH, USA</p>
24	<p><a href="#">Exploring the Molecular Factors Underlying the Enhancement of Electron Transfer by the MtrCAB complex</a>  <b>Abubackar, H.N.<sup>1</sup>*, Louro, R.O., Paquete, C.M.</b>  <sup>1</sup>Instituto de Tecnologia Química e Biológica António Xavier  <sup>2</sup> Universidade Nova de Lisboa, Avenida da República (EAN), Oeiras, Portugal</p>
26	<p><a href="#">Elucidating Novel Mechanisms of Extracellular Electron Uptake in Cathode-Oxidizing Marine Microbial Consortia</a>  <b>Sackett, J.D.<sup>1*</sup> &amp; Rowe, A.R.<sup>1</sup></b>  <sup>1</sup>Department of Biological Sciences, University of Cincinnati, Cincinnati, Ohio, USA</p>
28	<p><a href="#">The <i>in vivo</i> impact of electron transport on the bioenergetic state of cells along cable bacteria</a>  <b>Yang, T.<sup>1*</sup>, Seo, C.<sup>1</sup>, Third, C.C.<sup>2</sup>, So-on, D.D.<sup>2</sup></b>  <sup>1</sup>Department of Physics and Astronomy, University of Southern California, USA;  <sup>2</sup>Department of Chemistry, University of Southern California, USA</p>
30	<p><a href="#">Mechanistic Studies of Biotic-Abiotic Bacterial Electron Conduits</a>  <b>Dang, T.<sup>1*</sup>, El-Naggar, Y. M.<sup>1,2,3</sup></b>  <sup>1</sup>Molecular and Computational Biology, Department of Biological Sciences,  <sup>2</sup>University of Southern California, Los Angeles, CA, USA  <sup>3</sup>Department of Physics and Astronomy, University of Southern California, Los Angeles, CA, USA  <sup>4</sup>Department of Chemistry, University of Southern California, Los Angeles, CA, USA</p>
32	<p><a href="#">Understanding the membrane components involved in the extracellular electron transfer process of haloalkaliphilic <i>Geobacter</i> <i>halelectricus</i></a>  <b>Sadhotra, C.<sup>1*</sup>, Yadav, S.<sup>1</sup>, Louro, R.O.<sup>2</sup>, Paquete, C.M.<sup>2</sup> &amp; Patil, S.A.<sup>1#</sup></b>  <sup>1</sup>Indian Institute of Science Education and Research Mohali (IISER Mohali), SAS Nagar, Punjab, India  <sup>2</sup>Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa Oeiras, Oeiras, Portugal</p>
34	<p><a href="#">Investigating Chiral-Induced Spin Selectivity in Cytochrome Nanowires</a>  <b>Harris, C.<sup>1*</sup>, Yadav, S.<sup>1</sup>, Sukenik, N.<sup>1</sup> &amp; El-Naggar, M.Y.<sup>1,2,3</sup></b>  <sup>1</sup>Department of Physics and Astronomy, University of Southern California, Los Angeles, CA, USA  <sup>2</sup>Department of Biological Sciences, University of Southern California, Los Angeles, CA, USA  <sup>3</sup>Department of Chemistry, University of Southern California, Los Angeles, CA, USA</p>
36	<p><a href="#">Whole-cell proteome analysis of <i>Desulfuromonas acetexigens</i> hints at possible pathways involved in extracellular electron transfer</a>  <b>Sysoev, M., Katuri, K.P., Saikaly, P.E.*</b>  <sup>1</sup>Water Desalination and Reuse Center (WDRC), Biological and Environmental Science &amp; Engineering (BESE) Division  <sup>2</sup> King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Saudi Arabia</p>
38	<p><a href="#">Chirality Induced Spin-Dependent Electron Transport through a Critical Bacterial Cell Surface Multiheme Electron Conduit</a>  <b>Yadav, S.*, Sukenik, N., Chavez, M.S., &amp; El-Naggar, M.Y.*</b>  <sup>1</sup>Department of Physics and Astronomy, University of Southern California, Los Angeles, CA, USA</p>
40	<p><a href="#">Investigating mechanisms of Extracellular Electron Transfer in <i>Methanosarcina</i>: from metal reduction, to DIET, to the potential for electromethanogenesis</a>  <b>Rowe, A.<sup>1</sup> Vu, L., Sriram S., Lessner, D.</b>  <sup>1</sup>Department of Biological Sciences, University of Cincinnati, Cincinnati, OH, USA</p>

42	<p><a href="#">Multichannel bioelectronic sensing using engineered <i>Escherichia coli</i></a>  <b>Zhang, X.<sup>1</sup>, Ajo-Franklin, C.M.<sup>1,4*</sup></b>  <sup>1</sup>Department of BioSciences  <sup>2</sup>Department of Bioengineering  <sup>3</sup>Department of Chemical and Biomolecular Engineering,  <sup>4</sup>Rice Synthetic Biology Institute, Rice University, 6100 Main Street, Houston, TX, USA</p>
44	<p><a href="#">Engineering chemical-dependent sulfite reductase switches for bioelectronics</a>  <b>Elizabeth Windham<sup>1,2*</sup>, Dru Myerscough<sup>2</sup>, Presley Bird<sup>1,2</sup>, Ian J. Campbell<sup>2</sup>, and Jonathan J. Silberg<sup>1,3,4</sup></b>  <sup>1</sup>Biochemistry and Cell Biology Graduate Program, Rice University, Houston, TX, USA  <sup>2</sup>Department of Biosciences, Rice University, Houston, TX, USA  <sup>3</sup>Department of Bioengineering, Rice University, Houston, TX, USA  <sup>4</sup>Department of Chemical and Biomolecular Engineering, Rice University, Houston, TX, USA</p>
46	<p><a href="#">Programming electronic communication in lactic acid bacteria for environmental sensing</a>  <b>Li, S.<sup>1</sup>, Ajo-Franklin, C.M.<sup>1,2,3,*</sup></b>  <sup>1</sup>Department of BioSciences  <sup>2</sup>Department of Bioengineering  <sup>3</sup>Department of Chemical and Biomolecular Engineering, Rice University, USA</p>
48	<p><a href="#">Hybrid Transistor for Biosensing and Biocomputing</a>  <b>Gao, Y.<sup>1</sup>, Zhou, Y.<sup>1</sup>, Ji, X.<sup>2</sup>, Graham, A.J.<sup>1,3</sup>, Dundas, C.M.<sup>1,4</sup>, Miniel Mahfoud, I.E.<sup>1</sup>, Tibbett, B.M.<sup>1</sup>, Tan, B.<sup>1</sup>, Partipilo, G.<sup>1</sup>, Dodabalapur, A.<sup>1</sup>, Rivnay, J.<sup>2</sup>, Keitz, B.K.<sup>1*</sup></b>  <sup>1</sup>University of Texas at Austin, Austin, TX, USA  <sup>2</sup>Northwestern University, Evanston, IL, USA  <sup>3</sup>University of California San Francisco, San Francisco, CA, USA  <sup>4</sup>Stanford University, Stanford, CA, USA</p>
50	<p><a href="#">A modular design strategy for engineering two-component electrical systems for bioelectronics</a>  <b>Sattari Khavas, D.<sup>1,*</sup>, Windham, E.M.<sup>2</sup>, and Silberg, J.J.<sup>3</sup></b>  <sup>1</sup>Chemical and Biomolecular Engineering Graduate Program  <sup>2</sup>Biochemistry and Cell Biology Graduate Program  <sup>3</sup>Biosciences Department, Rice University, Houston, TX, USA</p>
52	<p><a href="#">Write, read, erase: transcriptional monitoring using chemical mediators</a>  <b>Schwartz, S.K.<sup>1</sup>, Silberg, J.J.<sup>1,2,3*</sup></b>  <sup>1</sup>Systems, Synthetic, and Physical Biology Graduate Program, Rice University, Houston, TX  <sup>2</sup>Department of BioSciences, Rice University, Houston, TX  <sup>3</sup>Department of Bioengineering, Rice University, Houston, TX  <sup>4</sup>Department of Chemical Engineering, Rice University, Houston, TX</p>
54	<p><a href="#">Electrode Reduction by <i>Vibrio natriegens</i> for Marine Biosensing Using Genetic Control</a>  <b>Carpenter, M.D.<sup>1,2*</sup>, Daneman, M.<sup>2</sup>, Ajo-Franklin, C.M.<sup>2,3,4</sup></b>  <sup>1</sup>Systems, Synthetic, and Physical Biology Graduate Program, Rice University, Houston, TX, USA  <sup>2</sup>Department of BioSciences, Rice University, Houston, TX, USA  <sup>3</sup>Department of Bioengineering, Rice University, Houston, TX, USA  <sup>4</sup>Department of Chemical and Biomolecular Engineering, Rice University, Houston, TX, USA</p>
56	<p><a href="#">Electrically controlled gene expression in <i>Lactiplantibacillus plantarum</i></a>  <b>De Groote Tavares, C.<sup>1*</sup>, Li, S.<sup>1</sup> Ajo-Franklin, C.<sup>1</sup></b>  <sup>1</sup>Rice University, Houston, Texas, USA</p>
58	<p><a href="#">MFC-Based Biosensors For Wastewater Quality Monitoring From Laboratory Scale To Real Application: Effect Of The Chemical And Microbial Composition Of The Feedstock</a>  <b>Salvian, A.<sup>1,2*</sup>, Farkas, D.<sup>2</sup>, Ramirez Moreno, M.<sup>2</sup>, Varcoe, J.R.<sup>1</sup>, Avignone Rossa, C.<sup>2</sup>, &amp; Gadkari, S.<sup>*1</sup></b>  <sup>1</sup>School of Chemistry and Chemical Engineering, University of Surrey, Guildford, United Kingdom  <sup>2</sup>Department of Microbial Sciences, University of Surrey, Guildford, United Kingdom</p>
60	<p><a href="#">Evaluating the effects of insertions, deletions, and fission on extracellular electron transfer mediated by MtrA</a></p>

	<p><b>Truong, A.T.<sup>1,2*</sup>, Bird, P.<sup>1,2</sup>, and Silberg, J.J.<sup>1,3,4</sup></b>  <sup>1</sup>Biochemistry and Cell Biology Graduate Program  <sup>2</sup>Department of Biosciences  <sup>3</sup>Department of Bioengineering  <sup>4</sup>Department of Chemical and Biomolecular Engineering, Rice University, Houston, TX, USA</p>
62	<p><b><a href="#">Organic Electrochemical Transistors and Redox Hydrogels for Amplifying Microbial EET</a></b>  <b>Bontapalle, S.<sup>1</sup>, Saxena, R.<sup>2</sup>, Zuo, X.<sup>1</sup> &amp; Verduzco, R.<sup>1,3*</sup></b>  <sup>1</sup>Department of Chemical and Biomolecular Engineering, Rice University, Houston, TX, USA  <sup>2</sup>Applied Physics Program, Rice University, Houston, TX, USA  <sup>3</sup>Department of Materials Science and NanoEngineering, Rice University, Houston, TX, USA</p>
64	<p><b><a href="#">Rewiring redox-responsive promoters for electronic control of microbial gene expression</a></b>  <b>Zakaria, F.R.<sup>1,2*</sup>, Chen, C.-Y.<sup>1,2</sup>, Chu, M.J.<sup>1,3</sup>, Payne, G.F.<sup>2,4</sup> &amp; Bentley, W.E.<sup>2,4</sup></b>  <sup>1</sup>Fischell Department of Bioengineering, University of Maryland, College Park, MD, USA  <sup>2</sup>Institute for Bioscience and Biotechnology Research, Rockville, MD, USA  <sup>3</sup>U.S. Army Research Laboratory, Adelphi, MD, USA  <sup>4</sup>Robert E. Fischell Institute for Biomedical Devices, College Park, MD, USA</p>
<h2>Session II: Odd Numbers</h2>	
1	<p><b><a href="#">Controlling the conductivity of light-patterned biofilms.</a></b>  <b>Atkinson, J.T.<sup>1,2,3*</sup>, Chavez, M.S.<sup>1</sup>, Niman, C.M.<sup>1</sup>, Zhao, F.<sup>1</sup>, Sukenik, N.<sup>1</sup>, Gralnick, J.A.<sup>4,5</sup>, Boedicker, J.Q.<sup>1</sup>, &amp; El-Naggar, M.Y.<sup>1,6,7</sup></b>  <sup>1</sup>Department of Physics and Astronomy, University of Southern California, Los Angeles, CA, USA  <sup>2</sup>Department of Civil and Environmental Engineering, Princeton University, Princeton, NJ, USA  <sup>3</sup>Omenn-Darling Bioengineering Institute, Princeton University, Princeton, NJ, USA  <sup>4</sup>Biotechnology Institute, University of Minnesota, Twin Cities, St. Paul, MN, USA  <sup>5</sup>Department of Plant and Microbial Biology, University of Minnesota, Twin Cities, St. Paul, MN, USA  <sup>6</sup>Department of Biological Sciences, University of Southern California, Los Angeles, CA, USA  <sup>7</sup>Department of Chemistry, University of Southern California, Los Angeles, CA, USA</p>
3	<p><b><a href="#">Innovative Solutions for Efficient CO<sub>2</sub> bioconversion: Microbial Electrochemical Fluidized Bed Reactor and Electrocatalyst Integration</a></b>  <b>Zakaria, B.S.<sup>1</sup>, Lanzilotti, A., Tejedor-Sanz, S.*</b>  <sup>1</sup>Advanced Biofuels and Bioproducts Process Development Unit, Emeryville, CA, USA  <sup>2</sup>Biological Systems and Engineering Division, Lawrence Berkeley National Laboratory, Berkeley, CA, USA</p>
5	<p><b><a href="#">Conduction in <i>Shewanella oneidensis</i> MR-1 biofilms uninhibited in periplasmic cytochrome deficient mutants</a></b>  <b>Niman, C.M.<sup>1#</sup>, Zhao, F.<sup>1#</sup>, Chavez, M.S.<sup>1</sup>, Gralnick, J.A.<sup>2</sup>, El-Naggar, M.Y.<sup>1*</sup>, &amp; Boedicker, J.Q.<sup>1</sup></b>  <sup>1</sup>University of Southern California, Los Angeles, CA, USA  <sup>2</sup>University of Minnesota-Twin Cities, St. Paul, MN, USA</p>
7	<p><b><a href="#">Understanding the membrane components involved in the extracellular electron transfer process of haloalkaliphilic <i>Geobacter</i> <i>halelectricus</i></a></b>  <b>Sadhotra, C.<sup>1*</sup>, Yadav, S.<sup>1</sup>, Louro, R.O.<sup>2</sup>, Paquete, C.M.<sup>2</sup> &amp; Patil, S.A.<sup>1#</sup></b>  <sup>1</sup>Indian Institute of Science Education and Research Mohali (IISER Mohali), SAS Nagar, Punjab, India  <sup>2</sup>Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa Oeiras, Oeiras, Portugal</p>
9	<p><b><a href="#">Electron mediation in microbial electrosynthesis with <i>Clostridium ljungdahlii</i>: A key to unlocking the potential of synthesis from CO<sub>2</sub></a></b>  <b>Boto, S.T.<sup>1,2*</sup>, Al-Sbei, S.<sup>1,2</sup>, Harnisch, F.<sup>3</sup>, Rosenbaum, M.A.<sup>1,2</sup></b>  <sup>1</sup>Leibniz Institute for Natural Product Research and Infection Biology (HKI), Jena, Germany  <sup>2</sup>Faculty of Biological Sciences, Friedrich Schiller University, Jena, Germany  <sup>3</sup>UFZ – Helmholtz-Centre for Environmental Research GmbH, Leipzig, Germany</p>
11	<p><b><a href="#">Using a porous 3D RVC biocathode for microbial electrosynthesis in a zero-gap flow cell with a catholyte flow over design</a></b>  <b>Yu, N.<sup>1*</sup>, Bian, B.<sup>1</sup>, Logan, B. E.<sup>1</sup></b>  <sup>1</sup>Department of Civil and Environmental Engineering, The Pennsylvania State University, University Park, PA, USA</p>

13	<p><a href="#">High-Performance Bioelectrochemical Hydrogen Production from Low-Conductivity Wastewater through Integrated Pretreatment and Compact Electrode Assemblies</a></p> <p><b>Wang, L.</b><sup>1,2</sup>, <b>Linowski, K.</b><sup>2</sup>, <b>Liu, H.</b><sup>2,*</sup></p> <p><sup>1</sup>Department of Biological Engineering, Utah State University, Logan, Utah, USA  <sup>2</sup>Department of Biological and Ecological Engineering, Corvallis, OR, USA</p>
15	<p><a href="#">Using a non-precious metal catalyst for long-term enhancement of methane production in a zero-gap microbial electrosynthesis cell</a></p> <p><b>Bian, B.</b><sup>1</sup>, <b>Yu, N.</b><sup>1</sup>, <b>Akbari, A.</b><sup>1</sup>, <b>Logan, B.E.</b><sup>1*</sup></p> <p><sup>1</sup> Department of Civil and Environmental Engineering, The Pennsylvania State University, University Park, PA, USA</p>
17	<p><a href="#">Mitigation of Membrane Fouling by Alkaline-produced Bioelectrochemically-assisted Osmotic Membrane Bioreactor</a></p> <p><b>Chao-Chin, Chang</b><sup>1</sup>, <b>Chang-Ping, Yu</b><sup>2</sup>, <b>Chieh-Yun, Wu, Jia-Zhe, Jiang, Chen-An, Hsu., Yi-Li, Lin</b><sup>1*</sup></p> <p><sup>1</sup>Department of Safety, Health and Environmental Engineering, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan (ROC)  <sup>2</sup>Graduate Institute of Environmental Engineering, National Taiwan University, Taipei, Taiwan (ROC)</p>
19	<p><a href="#">Using Ni-based Gas diffusion electrodes for bioelectrochemical ammonia recovery from waste water: a feasible option?</a></p> <p><b>Galeano, M.B.</b><sup>1*</sup>, <b>Fernández-Verdejo, D.</b><sup>1</sup>, <b>Sulonen, M.</b><sup>1,2</sup>, <b>Baeza, M.</b><sup>1</sup>, <b>Baeza, J.A.</b><sup>1</sup>, <b>Guisasola, A.</b><sup>1</sup></p> <p><sup>1</sup>Universitat Autònoma de Barcelona, Cerdanyola del Valles, Catalunya, Spain  <sup>2</sup>VTT Technical Research Centre of Finland Ltd, Espoo, Finland</p>
21	<p><a href="#">Using 3D Printed Electrochemical Reactors to Test Bioelectrocatalytic Reduction of Carbon Dioxide to Formate</a></p> <p><b>Ishkov, I.P.</b><sup>1*</sup>, <b>Gralnick, J.A.</b><sup>1</sup></p> <p><sup>1</sup>Department of Plant and Microbial Biology, BioTechnology Institute, University of Minnesota-Twin Cities, St. Paul, MN, USA</p>
23	<p><a href="#">Applying a Virginia Coastline Cable Bacteria Enrichment Culture to Remediate in Crude Oil Contaminated Sediment</a></p> <p><b>Kasper, C.</b><sup>1</sup>, <b>Maier, W.</b><sup>1</sup>, <b>Li, C.</b><sup>1*</sup></p> <p><sup>1</sup> Integrated Science and Technology, School of Integrated Science, James Madison University, Harrisonburg, VA, USA</p>
25	<p><a href="#">Reshaping the bioeconomy: Next generation biohybrid CO<sub>2</sub> valorization via novel C1 mediated processes</a></p> <p><b>Jack, J.</b><sup>1,2*</sup></p> <p><sup>1</sup>University of Michigan, Ann Arbor, MI, USA  <sup>2</sup>Global CO<sub>2</sub> Initiative, Ann Arbor, MI, USA</p>
27	<p><a href="#">Enhancing the Performance of Microbial Fuel Cells via Metabolic Engineering of <i>Escherichia coli</i> for Phenazine Production</a></p> <p><b>Simoska, O.</b><sup>1,a</sup> and <b>Minteer, S.D.</b><sup>2,b</sup></p> <p><sup>1</sup>The University of South Carolina, Chemistry and Biochemistry Department, 631 Sumter Street, Columbia, SC, USA  <sup>2</sup>The University of Utah, Chemistry Department, 315 South 1400 East, RM 2020, Salt Lake City, UT, USA</p>
29	<p><a href="#">Effect of start-up strategies with functionally redundant and efficient acetoclastic electroactive bacteria on the performance of microbial electrolysis cells fed with domestic wastewater</a></p> <p><b>Bader, M.A.</b><sup>1,2</sup>, <b>Rao Hari, A.</b><sup>1</sup>, <b>Katuri, K.P.</b><sup>1,*</sup>, <b>Saikaly, P.E.</b><sup>1,2,*</sup></p> <p><sup>1</sup>Water Desalination and Reuse Center (WDRC), King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Kingdom of Saudi Arabia  <sup>2</sup>Environmental Science and Engineering Program, Biological and Environmental Science and Engineering (BESE) Division, King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Kingdom of Saudi Arabia</p>
31	<p><a href="#">Biophotovoltaic operation in 3 Liter Triple stacked MFC reactor employing porous carbon electrode.</a></p>

	<p><b>Abdul Quadir, M.G.<sup>1</sup>, Boghossian, A.A.<sup>2</sup>, Trotta, M.<sup>3</sup>, Fischer, F.<sup>1*</sup></b>  <sup>1</sup> School of Engineering, Institute of Life Technologies, HES-SO Valais, Sion, Switzerland  <sup>2</sup> Institute of Chemical Sciences and Engineering, EPFL, Lausanne, Switzerland  <sup>3</sup> Institute for Physical-Chemical Processes (IPCF), CNR, Italy</p>
33	<p><b><a href="#">Application of Microbial Electrosynthesis: Performance and Intermittency</a></b>  <b>Deutzmann J.S.<sup>1,2*</sup>, Kracke F., Spormann A.M.<sup>1,2</sup></b>  <sup>1</sup> Stanford University, Stanford, CA, USA;  <sup>2</sup> Novo Nordisk Foundation CO<sub>2</sub> Research Center, Aarhus University, Aarhus, DK</p>
35	<p><b><a href="#">CFD simulation to investigate flow dynamics in a single chamber microbial electrolysis cell</a></b>  <b>Feilner, S.<sup>1*</sup>, Espejo, M.<sup>1</sup>, Herkendell, K.<sup>1</sup> Garcia, M.<sup>2</sup> &amp; Molognoni, D.<sup>2</sup></b>  <sup>1</sup> Friedrich-Alexander-Universität, Erlangen-Nürnberg, Germany  <sup>2</sup> Leitai Technological Center, Terrassa, Barcelona, Spain</p>
37	<p><b><a href="#">Leveraging lactic acid bacteria electroactivity in engineered microbiomes for organic waste valorization</a></b>  <b>Leininger, A.<sup>1,2*</sup>, May, H.D.<sup>2</sup>, Ren, Z.J.<sup>1,2</sup></b>  <sup>1</sup> Princeton University, Dept. Civil and Environmental Engineering, Princeton, NJ, USA  <sup>2</sup> Andlinger Center for Energy and the Environment, Princeton University, Princeton, NJ, USA</p>
39	<p><b><a href="#">Use of Activated Carbon at the anode of Microbial Fuel Cells for pH neutrality</a></b>  <b>Rodrigues, I.C.B.<sup>1*</sup>, Lobo, F.L.<sup>2</sup>, Leão, V.A.<sup>3</sup></b>  <sup>1</sup> Universidade Federal de São João del-Rei, Ouro Branco, Minas Gerais, Brasil;  <sup>2</sup> Universidade Federal do Ceará, Fortaleza, Ceará, Brasil;  <sup>3</sup> Universidade Federal de Ouro Preto, Ouro Preto, Minas Gerais, Brasil</p>
41	<p><b><a href="#">Integrating Research of Microbial Electrochemistry and Technology into Teaching: Example of Culturing Cable Bacteria as a Laboratory Activity</a></b>  <b>Li, C.<sup>1*</sup>, Reimers, C.E.<sup>2</sup>, Shannon, K.<sup>2</sup>, Buser, J.<sup>2</sup>, Colwell, R.<sup>2</sup></b>  <sup>1</sup> Integrated Science and Technology, School of Integrated Science, James Madison University, Harrisonburg, VA, USA  <sup>2</sup> College of Earth, Ocean, and Atmospheric Sciences, Oregon State University, Corvallis, OR, USA</p>
43	<p><b><a href="#">In-Situ Hydrogen Production from Waste Crude Oil in Two-Phase Microbial Electrolysis Cells: A Proof-Of-Concept Study</a></b>  <b>Barefoot, G.<sup>1</sup> and Li, C.<sup>1*</sup></b>  <sup>1</sup> Integrated Science and Technology, School of Integrated Science, James Madison University, Harrisonburg, VA, USA</p>
45	<p><b><a href="#">Investigating the Influence and Conversion of Fermentation End Products in Microbial Electrolysis Cells</a></b>  <b>Linowski, K.<sup>1</sup>, Long, F.<sup>1</sup>, Liu, H.<sup>1*</sup></b>  <sup>1</sup> Oregon State University, Corvallis, OR, USA</p>
47	<p><b><a href="#">Finding the Ideal Microbial Electrolysis Cell Conditions with <i>Acidimicrobium</i> sp. Strain A6 to Enhance Ammonium Oxidation and PFAS Defluorination in Wastewater</a></b>  <b>Llerena-Olivera, C.<sup>1*</sup>, Jiang, J.<sup>1,2</sup>, Ren, Z. J.<sup>1,2</sup>, &amp; Jaffé, P. R.<sup>1</sup></b>  <sup>1</sup> Department of Civil and Environmental Engineering, Princeton University, Princeton, NJ, USA  <sup>2</sup> Andlinger Center for Energy and the Environment, Princeton University, Princeton, NJ, USA</p>
49	<p><b><a href="#">Membrane electrolysis distillation (MED) for volatile fatty acids separation from pH-neutral wastewater</a></b>  <b>Lu, S.<sup>a</sup>, McGaughey, A.<sup>a</sup>, Im, S.<sup>b</sup>, Liu, Y.<sup>b</sup>, Wang, X.<sup>b</sup>, Leininger, A.<sup>a</sup>, Jassby, D.<sup>b</sup>, Hoek, E.<sup>b</sup>, Ren, Z.J.<sup>a*</sup></b></p>
51	<p><b><a href="#">Influence of cell voltage on synthesis of caproate from carbon dioxide in a direct current powered microbial electrosynthesis cell</a></b>  <b>Krishna Chaitanya, N.<sup>1*</sup>, Pavithra, S N.<sup>1</sup>, Akanksha, R.<sup>1</sup> &amp; Pritha, C.<sup>1,2</sup></b>  <sup>1</sup> Department of Civil Engineering, Indian Institute of Technology Hyderabad, Sangareddy, Telangana, India  <sup>2</sup> Department of Climate Change, Indian Institute of Technology Hyderabad, Sangareddy, Telangana, India</p>

53	<p><a href="#">Optimization of a zero-gap cell and methanogenic reactor assembly operated with catholyte derived from real wastewater streams</a></p> <p><b>Rad, R.</b><sup>1,2,3</sup>, <b>Gehring, T.</b><sup>2*</sup>, <b>Siegmund, D.</b><sup>1,3</sup>, <b>Wichern, M.</b><sup>2</sup>, <b>Apfel, U-P.</b><sup>1,3*</sup></p> <p><sup>1</sup>Ruhr University Bochum, Inorganic Chemistry I, Bochum, Germany  <sup>2</sup>Ruhr University Bochum, Urban Water Management and Environmental Technology, Bochum, Germany  <sup>3</sup>Fraunhofer UMSICHT, Oberhausen, Germany</p>
55	<p><a href="#">Bioelectrochemical Metal-Recovery: closing the lithium loop</a></p> <p><b>Ramirez-Moreno, M.</b><sup>1*</sup>, <b>Gadkari, S.</b><sup>2</sup>, <b>Sadhukhan, J.</b><sup>2</sup>, <b>Avignone Rossa, C.</b><sup>1</sup></p> <p><sup>1</sup>Department of Microbial Sciences  <sup>2</sup>School of Chemistry and Chemical Engineering, University of Surrey, Guildford GU2 7XH, UK</p>
57	<p><a href="#">Combining biochemical and electro- driving forces to extract precious metals in urban mining</a></p> <p><b>Xie, A.</b>, <b>Zou, S.</b><sup>*</sup></p> <p>Department of Civil and Environmental Engineering, Auburn University, Auburn, AL, USA</p>
59	<p><a href="#">Electrochemical Platform of Controllable pH Gradients in Microbial Systems</a></p> <p><b>Wang, J.</b><sup>1*</sup> &amp; <b>Xie, Y.</b><sup>1</sup></p> <p><sup>1</sup>University of California, Los Angeles, Los Angeles, CA, USA</p>
61	<p><a href="#">Investigating Electromethanogenic Microbial Electrolysis Cells using Electrochemical Impedance Spectroscopy</a></p> <p><b>Torrigino, F.</b><sup>1*</sup>, <b>Espejo M.</b><sup>1</sup>, <b>Herkendell, K.</b><sup>1</sup></p> <p><sup>1</sup>Friedrich-Alexander-Universität (FAU) Erlangen-Nürnberg, Nuremberg, Germany</p>
63	<p><a href="#">Modeling mediated electron transport in microbial electro-photosynthesis</a></p> <p><b>Lewis, C.M.</b><sup>1,3</sup>, <b>Sahoo, S.</b><sup>2,3</sup>, <b>Fromme, P.</b><sup>1</sup>, <b>Torres C.I.</b><sup>2,3</sup></p> <p><sup>1</sup>School of Molecular Sciences, Arizona State University, Tempe, AZ, USA  <sup>2</sup>School for Engineering of Matter, Transport and Energy, Arizona State University, Tempe, AZ, USA  <sup>3</sup>Biodesign Swette Center for Environmental Biotechnology, Arizona State University, Tempe, AZ, USA</p>
65	<p><a href="#">Asymmetric and vapor-fed reactor designs for microbial electrochemical technologies</a></p> <p><b>Rossi, R.</b><sup>1*</sup>, <b>Wang, L.</b><sup>2</sup>, <b>Du, H.</b><sup>1</sup>, <b>Yoon, N.</b><sup>1</sup>,</p> <p><sup>1</sup>Johns Hopkins University, Baltimore, MD, USA  <sup>2</sup>Utah State University, Logan, UT, USA</p>
67	<p><a href="#">Is microbial fuel cell a sustainable treatment technology for petroleum hydrocarbon containing wastewater?</a></p> <p><b>M Geethapriyai</b><sup>1,2</sup>, <b>Indumathi M Nambi</b><sup>1*</sup> <b>Guhan Jayaraman</b></p> <p><sup>1</sup>Department of Bio-technology, Bhupat and Jyoti Mehta School of Biosciences, Indian Institute of Technology Madras, Chennai, 600036, India  <sup>2</sup>Environmental Engineering Division, Department of Civil Engineering, Indian Institute of Technology Madras, Chennai, 600 036, India</p>