

Erwin Reisner

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Current academic positions

2024 – present Royal Academy of Engineering Chair in Emerging Technologies
2017 – present Professor of Energy & Sustainability, Department of Chemistry, University of Cambridge
2011 – present Fellow of St. John's College, Cambridge

Current entrepreneurial positions

2024 – present Co-Founder & Chief Scientific Officer, waste-to-fuel technology start-up, Protonera Ltd

Previous academic appointments

2015 – 2017 University Reader, Department of Chemistry, University of Cambridge
2012 – 2019 Director, Christian Doppler Laboratory for Sustainable SynGas Chemistry, Cambridge
2010 – 2024 College Lecturer, Organic Chemistry, St. John's College, Cambridge
2010 – 2015 University Lecturer, Department of Chemistry, University of Cambridge
2010 – 2015 EPSRC Career Acceleration Fellow, Department of Chemistry, University of Cambridge
2009 – 2010 EPSRC Career Acceleration Fellow, School of Chemistry, The University of Manchester, UK

Previous postdoc positions

2008 – 2009 BBSRC Research Associate, Inorganic Chemistry Laboratory, University Oxford, UK
Supervisor: Prof. Fraser A. Armstrong
2008 – 2009 College Lecturer, Inorganic Chemistry, St. John's College, Oxford, UK
2005 – 2007 Erwin Schrödinger Research Fellow, Massachusetts Institute of Technology, USA
Supervisor: Prof. Stephen J. Lippard

Education and degrees

2010 Habilitation (professorial qualification), Faculty of Chemistry, University of Vienna, Austria
Thesis Topic: 'Bio-inspired generation of sustainable energy carriers'
2002 – 2005 PhD with distinction (grade 1.0), Faculty of Chemistry, University of Vienna, Austria
(including 1-year research at Instituto Superior Técnico, Lisbon, Portugal)
Thesis Topic: 'Redox activated ruthenium anticancer drugs'
Supervisor: Prof. Bernhard K. Keppler
1998 – 2002 Diploma with distinction, 5-year programme with integrated BSc (grade 1.0) and MSc
(grade 1.0), Faculty of Chemistry, University of Vienna, Austria
(including Erasmus exchange semester, New University of Lisbon, Portugal)

Awards

2024 Tilden Prize, Royal Society of Chemistry, UK
2023 Hughes Medal, Royal Society, UK
2022 Galvani Prize, The Bioelectrochemical Society, International
2018 Corday Morgan Prize, Royal Society of Chemistry, UK
2018 Lee Hsun Young Scientist Award, Chinese Academy of Science, Shenyang, China
2017 Japan Society of Coordination Chemistry International Award for Creative Work, Japan
2014 Harrison-Meldola Memorial Prize, Royal Society of Chemistry, UK
2014 Grammaticakis-Neumann Prize, Swiss Chemical Society, Switzerland
2014 Young Investigator Award, Royal Society of Chemistry Bioinorganic Group, UK
2011 'Science Award', Federal State of Upper Austria, Austria
2009 Anton-Paar Science Award, Austrian Chemical Society, Austria
2003 National Award for academic excellence (Würdigungspreis), Ministry of Science, Austria
2000 – 2004 University Awards for academic excellence, University of Vienna, Austria

Research Funding & Fellowships (>£1M)

Principal Investigator Grants:

- Source: Royal Academy of Engineering and UK Department of Science, Innovation & Technology
Programme: Chair in Emerging Technologies
Title: Solar-powered Upcycling of Biomass and Plastic Waste to Sustainable Chemicals
Value: £2.5 million. Grant ID: CIET-2324-83. Duration: 2024-2034.
- Source: European Research Council (ERC) Advanced Grant (UKRI funded)
Title: Semi-biological Domino Catalysis for Solar Chemical Synthesis
Value: €2.5 million. Acronym: domino4chem. Grant ID: EP/X030563/1. Duration: 2023-2028.
- Source: European Union: FP7, Horizon 2020, UKRI underwrite; Marie Skłodowska-Curie Fellowships (16x)
16 individual postdoctoral fellowships on solar chemistry projects
Value: €4.5 million. Duration: 2013-2026.
- Source: European Research Council (ERC) Consolidator Grant (CoG) and Proof of Concept (PoC)
Title CoG: Semi-artificial photosynthesis with wired enzymes (Acronym: MatEnSAP; Grant ID: 682833)
Title PoC: Solar-driven reforming of waste into hydrogen (Acronym: SolReGen, Grant ID: 966581)
Value: €2.15 million (€2M CoG, €0.15M PoC). Duration: 2016-2023.
- Source: United Kingdom Research & Innovation (UKRI)
Title: Cambridge Circular Plastics Centre (Circular Economy Approaches to Eliminate Plastic Waste)
Value: £1 million. Acronym: CirPlas. Grant ID: EP/S025308/1. Duration: 2019-2021.
- Source: Biotechnology & Biological Sciences Research Council (BBSRC)
3 projects on biohybrids for solar chemistry; Grant IDs: BB/S00159X/1, BB/K010220/1, BB/J000124/1
Value: £1 million. Duration: 2013-2023.
- Source: Christian Doppler Research Association and OMV Group, Austria
Title: Christian Doppler Laboratory for Sustainable SynGas Chemistry
Value: €2.3 million. Duration: 2012–2019.
- Source: EPSRC Career Acceleration Fellowship and EPSRC Research Leaders Award
Title: Bio-inspired Solar Light Driven Hydrogen Production, Grant ID: EP/H00338X
Value: £1 million. Duration: 2009-2015.

Co-Investigator Grants:

- Source: Engineering & Physical Sciences Research Council (EPSRC)
Title: EPSRC Centre for Doctoral Training in Integrated Functional Nano (i4Nano)
Value: £6.3 million. Grant ID: EP/S022953/1. Duration: 2019-2028
- Source: European Union, Horizon 2020, EU ITN Network
Title: Solar chemicals for a sustainable Europe by hybrid molecule semiconductor devices
Value: €4 million. Acronym: Solar2Chem. Grant ID: 861151. Duration: 2020-2024
- Source: European Union, Horizon 2020, EU FET OPEN
Title: Soap Film based Artificial Photosynthesis
Value: €3.2 million. Acronym: Sofia, Grant ID: 828838. Duration: 2019-2023
- Source: Engineering & Physical Sciences Research Council (EPSRC)
Title: EPSRC Centre for Doctoral Training in Sustainable and Functional Nano
Value: £4.6 million. Grant ID: EP/L015978/1. Duration: 2014-2023

Scientific and research leadership at the University of Cambridge (current only)

- 2019 – present Director (PI) of UKRI Cambridge Creative Circular Plastics Centre (CirPlas)
https://www.energy.cam.ac.uk/Plastic_Waste
- 2014 – present Co-director (Co-I) of EPSRC Doctoral Training Centre for Nanotechnology
<https://www.nanodtc.cam.ac.uk/>
- 2019 – present Member of EPSRC Centre for Doctoral Training in Automated Synthesis
- 2019 – present Steering Committee Member of Energy Interdisciplinary Research Centre
- 2017 – present Steering Committee Member of Global Challenges Strategic Research Initiative
- 2013 – present Selection Committee Member of Junior Research Fellowships, St. John's College
- 2012 – present Member (Cambridge lead) of Tohoku University (AIMR)–Cambridge Research Centre

International and national panel membership to support research excellence (recent only)

- 2019 – present Member (Co-I), EU ITN ETN consortium 'Solar2Chem'
- 2012 – present Member and providing support for EU and UK solar fuel and chemistry initiatives (AMPEA, Energy-X, Sunrise, Sunergy and Suner-C, Mission Innovation on Clean Energy)
- 2021 – present Committee on Interdisciplinary Research, Novo Nordisk Foundation, Denmark
- 2021 – present Advisory board, Fundamental Research Centre on Artificial Photosynthesis, China
- 2023 – 2024 Evaluation committee, Swedish Foundation for Strategic Research
- 2023 – 2024 Evaluation committee, Swiss Federal Office of Energy
- 2019 – 2023 Member (Co-I), EU FET OPEN consortium 'Soap Film Based Artificial Photosynthesis'
- 2022 – 2023 Evaluation committee, Polish Ministry of Science
- 2022 – 2023 Evaluation committee, Research Council of Norway
- 2019 – 2023 Scientific Advisory Board, Max Planck Institute of Colloids & Interfaces, Germany
- 2019, 2022 Evaluation committee, A*STAR, Singapore
- 2017 – 2021 Director, UK Solar Fuels Network (part of EPSRC SUPERGEN SuperSolar consortium)

Membership in scientific societies

- 2014 – present Fellow of the Royal Society of Chemistry (FRSC), UK (Member from 2008–2014)
- 2017 – present Member of the German Chemical Society (GdCh), Germany
- 2006 – present Member of the American Chemical Society, USA

International advisory board membership of scientific journals

- 2019 – present *Chemical Science*
- 2018 – present *Angewandte Chemie* (previously Kuratorium)
- 2011 – present *Chemical Communications*

Organisation and support of scientific meetings, colloquia and knowledge exchange

- 2023 Co-Chair, Biophotoelectrochemical Workshop, Cambridge, UK
- 2023 Theme committee member, IUPAC World Chemistry Congress, The Hague, The Netherlands
- 2021 Co-Chair, Royal Society of Chemistry Chemical Science Symposium (online)
- 2020 Co-organiser, 'Hybrids for Solar Fuel Generation' symposium, Pacificchem, USA (online)
- 2019 Chair, 3rd Faraday Discussions on Artificial Photosynthesis in Cambridge, UK
- 2019 Chair, 7th UK Solar Fuels Network Symposium in Cambridge, UK
- 2019 Co-Chair, nanoGE symposium on Solar Fuels in Berlin, Germany
- 2018 Co-organiser, Symposium at 43rd Int. Conference on Coordination Chemistry, Sendai, Japan
- 2016 Co-organiser, 4th UK Solar Fuels Network Symposium, Cambridge, UK
- 2016 Co-convener, 6th European Chemical Society (EuChemS) Conference, Seville, Spain
- 2016 Organising committee, 1st Energy & Environmental Materials Forum, Gold Coast, Australia
- 2016 Co-organiser, 2nd UK-Japan Solar Fuels Symposium, Tokyo, Japan
- 2014 Co-organiser, 1st UK-Japan Solar Fuels Symposium, Tokyo, Japan
- 2013 Co-organiser, RSC 'Challenges in Chemical Renewable Energy' Conference, Cambridge, UK
- 2011 Co-organiser, RSC Workshop 'Solar Water Splitting', Boston, USA
- 2020 – present International Committee, Conference on Photochemical Conversion and Storage (IPS)
- 2013 – 2019 Organiser, Christian Doppler Lectures & Symposia, Cambridge, UK
- 2011 – 2014 Colloquium & Lord Lewis Lecture Organiser, Department of Chemistry, Cambridge, UK
- 2014 – 2017 Member, RSC Faraday Standing Committee on Conferences, London, UK

Presentations (Total: >330 lectures presented with >270 invited/keynote/plenary/named/award lectures)

Selected research presentations since 2022 (in person talks only):

Upcoming:

- *Plenary*. 46th International Conference on Coordination Chemistry, Odense, Denmark
- *Plenary*. Conference on Sustainable Chemistry for Net Zero, St. Andrews, UK
- *Plenary*. 5th International solar fuels conference (ISF2025), Newcastle, UK
- *Keynote*. ACS Spring National Meeting, San Diego, USA
- *Plenary*. 7th International Symposium on Solar Fuels and Solar Cells, Dalian, China

Completed:

- *Distinguished lecture*. German Chemical Society & Barbara Mez-Starck Colloquium, University of Ulm, Germany
- *Plenary*. 22nd Cardiff Chemistry Conference, Cardiff, UK
- *Plenary*. 25th Netherlands' Catalysis and Chemistry Conference (N3C), Noordwijkerhout, The Netherlands
- *Keynote*. 244th Electrochemical Society (ECS) Meeting, Gothenburg, Sweden
- *Annual St. John's College Lecture*. University of Hull, UK
- *Keynote*. Sunlight- and Power-to-X conference, Uppsala University, Sweden
- *Plenary*. 8th International Conference on Semiconductor Photochemistry, Strasbourg, France
- *Plenary*. EuChemS European Inorganic Chemistry Conference (EICC), Vienna, Austria
- *Invited opening lecture*. 'Electrocatalysis Meets Organic Electrosynthesis' Summerschool, Interlaken, Switzerland
- *Gerhard Schmidt Lecture*. Faculty of Chemistry, Weizmann Institute of Science, Israel
- *Silliman Seminar in Inorganic Chemistry*. Department of Chemistry, Yale University, USA
- *Plenary*. 'Frontiers in renewable fuels and chemicals' symposium, Tarragona (ICIQ), Spain
- *Invited*. Sungkyun International Solar Forum (SISF 2022), Seoul, South Korea
- *Invited*. Department of Chemistry and Applied Biosciences, ETH Zürich, Switzerland
- *Keynote*. SolTech 2022 Conference, Munich, Germany
- *Plenary*. Annual Meeting of German Catalysis Society, Weimer, Germany
- *Plenary*. 38th Biennial Meeting of the Spanish Royal Society of Chemistry (RSEQ), Granada, Spain
- *Plenary*. 4th Small Molecule Activation conference, Cancun, Mexico
- *Galvani Prize Lecture*. 27th International Symposium on Bioelectrochemistry & Bioenergetics, Antwerp, Belgium
- *Plenary*. RSC Chemical Nanoscience and Nanotechnology Annual Symposium, London, UK

International EIC Horizon Prize 'Fuel from the Sun: Artificial Photosynthesis' competition (£5M)

- Coordinator of Cambridge team that demonstrated a prototype solar-powered reactor ('artificial leaves') for direct CO₂ to syngas conversion in Joint Research Centre in Ispra (Italy) in 2022. Joint 2nd prize.
Video: <https://www.youtube.com/watch?v=rLad1mkHY6o>

Outreach

I coordinate events, often with my team, and give lectures to explain my science to the public. My engagements range from visits to local schools, inviting children to the chemistry department, presenting at the Cambridge Science Festival or Pint of Science Festival as well as reaching out to alumni. We showcase scientific experiments to make science widely accessible and understood.

Online resources include:

- News public outreach: <https://tinyurl.com/ub9hauj> and <https://tinyurl.com/uzxu8xmc>
- Videos: <http://www-reisner.ch.cam.ac.uk/videos.html>
- Press articles about our work: <http://www-reisner.ch.cam.ac.uk/press.html>
- Cambridge Festival: <http://www-reisner.ch.cam.ac.uk/CamFest.html>

Selected outreach presentations in Cambridge (UK) since 2022 (in person talks only):

- *Primary School Lecture with Experiments*. Newham Croft Primary School (Year 6, age: 10 years)
- *Secondary School Lecture with Experiments*. Parkside Community College (Year 10, age: 14 years)
- *Student Society Lecture*. Kelvin Club, Peterhouse College
- *Student Society Lecture*. Churchill Science Society, Churchill College
- *Student Society Lecture*. Cambridge University Chemistry Society
- *Student Society Lecture*. Cambridge University Scientific Society
- *Public Lecture*. Pint of Science Festival, Panton Arms
- *Public Lecture with Device Display*. Cambridge Festival
- *Alumni Lecture*. St. John's College
- *Alumni Lecture with Device Display*. Yusuf Hamied Department of Chemistry

Publications

<http://www-reisner.ch.cam.ac.uk/publications.html>

Total: 238 peer-reviewed journal publications & 6 patents. ORCID: 0000-0002-7781-1616

Citation metrics (google scholar source: [here](#)): H-index, 89; citation rate, >3'500 pa; total citations, 25'000.

List of Peer-Reviewed Publications

[number] unnamed co-authors, *corresponding authors

Publications as Principal Investigator in Cambridge

238. Cobb, Pornrunroj, Andrei, Badiani, Su, Manuel, Pereira & Reisner* *Device*, 2024, 2, 100505.
"Photoelectrochemical-thermoelectric device for semi-artificial CO₂ fixation employing full solar spectrum utilization"
237. Kalathil, Rahaman, Lam, Augustin, Greer & Reisner* *Angew. Chem. Int. Ed.*, 2024, e202409192
"Solar-driven Methanogenesis through Microbial Ecosystem Engineering on Carbon Nitride"
236. Ming, Cobb, Rahaman, Sammy, Reisner & Wheatley* *Adv. Funct. Mater.*, 2024, 2411006
"Anisotropic Heterobimetallic Nanomaterials with Controlled Composition for O₂ Reduction at Low Loading"
235. Macpherson, Lawson, [3], Reisner, Euser*, Stranks* & Gentleman* *ACS Catal.*, 2024, 14, 12006–15
"Influence of Electron Donors on the Charge Transfer Dynamics of Carbon Nanodots in Photocatalytic Systems"
234. Yeung, Andrei, Lee, Durrant & Reisner* *Adv. Mater.*, 2024, 36, 2404110
"Organic Semiconductor-BiVO₄ Tandem Devices for Solar-Driven H₂O and CO₂ Splitting"
233. Robertson, Zhang, Reisner, Butt & Jeuken* *Chem. Sci.*, 2024, 15, 9893–914
"Engineering of bespoke photosensitiser–microbe interfaces for enhanced semi-artificial photosynthesis"
232. Bonke, Trezza, Bergamasco, [3], Chiavazzo* & Reisner* *J. Am. Chem. Soc.*, 2024, 146, 15648–58
"Optimization of Self-Assembled Photocatalytic CO₂ Reduction Performance Using Machine Learning Algorithms"
231. Pan, Dai, [14], Reisner, [2], Hagfeldt*, Grätzel* & Stranks* *Nature*, 2024, 628, 765–70
"High carrier mobility along the [111] orientation in Cu₂O photoelectrodes"
230. Kim, Bhattacharjee, Lam, Casadevall, Rodríguez-Jiménez & Reisner* *Small*, 2024, 2400057
"Photocatalytic CO₂ reduction using homogeneous carbon dots with a molecular cobalt catalyst"
229. Liu, Pulignani, Webb, Cobb, Rodríguez-Jiménez, [2] & Reisner* *Chem. Sci.*, 2024, 6088–94
"Electrostatic [FeFe]-hydrogenase–carbon nitride assemblies for efficient solar hydrogen production"
228. Sun, Bhattacharjee, Xiao*, Li, [4], Reisner, MacManus-Driscoll* *J. Mater. Chem. C*, 2024, 12, 4779–91
"Low-temperature open-atmosphere growth of WO₃ thin films with tunable and high-performance photoresponse"
227. Seif-Eddine, Cobb, Dang, Abdiaziz, Bajada, Reisner & Roessler* *Nature Chem.*, 2024, 16, 1015–23
"Operando film-electrochemical EPR spectroscopy tracks radical intermediates in surface-immobilized catalysts"
226. Bhattacharjee, Linley & Reisner* *Nature Rev. Chem.*, 2024, 8, 87–105
"Solar reforming as an emerging technology for circular chemical industries"
225. Cobb, Rodríguez-Jiménez & Reisner* *Angew. Chem. Int. Ed.*, 2024, 63, e202310547
"Connecting Biological and Synthetic Approaches for Electrocatalytic CO₂ Reduction"
224. Rodríguez-Jiménez, Lam, Bhattacharjee & Reisner* *Green Chem.*, 2023, 25, 10611–21
"Valorisation of lignocellulose and low concentration CO₂ using fractionation–photocatalysis–electrolysis process"
223. Pornrunroj, Annuar, Wang, [2], Andrei & Reisner* *Nature Water*, 2023, 1, 952–60
"Hybrid photothermal-photocatalyst sheets for solar-driven overall water splitting coupled to water purification"
222. Bhattacharjee, Guo, Lam, [6], Hollfelder* & Reisner* *J. Am. Chem. Soc.*, 2023, 145, 20355–64
"Chemoenzymatic Photoreforming: A Sustainable Approach for Solar Fuel Generation from Plastic Feedstocks"
221. Casadevall, Lage, Mu, Greer, [4], García-Melchor* & Reisner* *Nanoscale*, 2023, 15, 15775–15784
"Size-dependent activity of carbon dots for photocatalytic H₂ generation with a molecular Ni cocatalyst"
220. Bonchio, Bonin*, [4], Reisner, Sarkar, Toma & Robert* *Nature Catal.*, 2023, 6, 657–65
"Best practices for experiments and reporting in photocatalytic CO₂ reduction"
219. Fang, Rahaman, Bharti, Reisner, Robert, Ozin & Hu* *Nature Rev. Methods Primers*, 2023, 3, 61
"Photocatalytic CO₂ reduction"
218. Zhang, Casadevall, [2], Butt*, Reisner* & Jeuken* *Adv. Funct. Mater.*, 2023, 33, 202302204.
"Rational Design of Covalent Multiheme Cytochrome-Carbon Dot Biohybrids for Photoinduced Electron Transfer"
217. Lawson, Gentleman, [3], Petit, Frosz, Reisner* & Euser* *ACS Catal.*, 2023, 13, 2300077
"Low-Volume Reaction Monitoring of Carbon Dot Light Absorbers in Optofluidic Microreactors"
216. Kar, Rahaman, Andrei, Bhattacharjee, Roy & Reisner* *Joule*, 2023, 7, 1496–514
"Integrated capture and solar-driven utilization of CO₂ from flue gas and air"

215. Pornrungrroj, Andrei & Reisner* *J. Am. Chem. Soc.*, **2023**, *145*, 13709–14
“Thermoelectric–Photoelectrochemical Water Splitting under Concentrated Solar Irradiation”
214. Galushchinski, Pulignani, Szalad, Reisner, [4], Savateev* & Antonietti *Solar RRL*, **2023**, *7*, 2300077
“Heterostructured PHI-PTI/Li⁺Cl⁻ Carbon Nitrides for Multiple Photocatalytic Applications”
213. Rahaman, Andrei, Wright, [5], Baumberg & Reisner* *Nature Energy*, **2023**, *8*, 629–38
“Solar-driven liquid multicarbon fuel production using a standalone perovskite-BiVO₄ artificial leaf”
212. Linley & Reisner* *Adv. Sci.*, **2023**, *10*, 2207314
“Floating Carbon Nitride Composites for Practical Solar Reforming of Pre-Treated Wastes to Hydrogen Gas”
211. Cobb, Dharani, Oliveira, Pereira & Reisner* *Angew. Chem. Int. Ed.*, **2023**, *62*, e202218782
“Carboxysome-Inspired Electrocatalysis using Enzymes for the Reduction of CO₂ at Low Concentrations”
210. Baikie, [3], Reisner, [3], Schnedermann*, Rao* & Zhang* *Nature*, **2023**, *615*, 836–40
“Photosynthesis re-wired on the pico-second timescale”
209. Lam, Miller, Linley, Manuel, Pereira & Reisner* *Angew. Chem. Int. Ed.*, **2023**, *62*, e202215894
“Comproportionation of CO₂ and Cellulose to Formate Using a Floating TiO₂-Enzyme Photocatalyst”
208. Bhattacharjee, Rahaman, Andrei, [3] Pornrungrroj & Reisner* *Nature Synth.*, **2023**, *2*, 182–92
“Photoelectrochemical CO₂-to-fuel conversion with simultaneous plastic reforming”
207. Osorio, Shalvey, Banerji, Saeed, [5], Reisner, Major* & Cowan* *Chem. Commun.*, **2023**, *59*, 944–47
“Hybrid photocathode based on Ni molecular catalyst and Sb₂Se₃ for solar H₂ production”
206. Lawson, Gentleman, Pinnell, [3], Reisner* & Euser* *Angew. Chem. Int. Ed.*, **2023**, *62*, e202214788
“In-situ detection of cobaloxime intermediates during photocatalysis using photonic crystal fiber microreactors”
205. Andrei, Wang, Uekert, Bhattacharjee & Reisner* *Acc. Chem. Res.*, **2022**, *55*, 3376–86
“Solar panel technologies for light-to-chemical conversion”
204. Pichler, Bhattacharjee, Lam, Su, [4], Rahaman & Reisner* *ACS Catal.*, **2022**, *12*, 13360–71
“Bio-electrocatalytic conversion of food waste to ethylene via succinic acid as the central intermediate”
203. Pulignani, Mesa, [2], Giménez*, Durrant* & Reisner* *Angew. Chem. Int. Ed.*, **2022**, *61*, e202211587
“Rational design of carbon nitride photoelectrodes with high activity toward organic oxidations”
202. Jenner, Crack, [4], Reisner, [2], Cheesman* & Butt* *J. Am. Chem. Soc.*, **2022**, *144*, 18296–304
“Reaction of thiosulfate dehydrogenase with a substrate mimic gives insights into the mechanism of catalysis”
201. Kalathil, Miller & Reisner* *Angew. Chem. Int. Ed.*, **2022**, *61*, e202211057
“Microbial fermentation of PET plastic waste for the production of chemicals or electricity”
200. Gentleman, Lawson, Ellis, [5] Reisner, Cresswell* & Euser* *Chem. Commun.*, **2022**, *58*, 10548–51
“Stern–Volmer analysis of photocatalyst fluorescence within hollow-core photonic crystal fibre microreactors”
199. Andrei, Ucoski, Pornrungrroj, Uswachoke, Wang, [12], Friend & Reisner* *Nature*, **2022**, *608*, 518–22
“Floating perovskite-BiVO₄ devices for scalable solar fuel production”
198. Piper, Casadevall, Reisner, [2], Gates & Butt* *Angew. Chem. Int. Ed.*, **2022**, *61*, e202210572
“Photocatalytic removal of the greenhouse gas nitrous oxide by liposomal microreactors”
197. Badiani, Casadevall, Miller, [2], Pereira & Reisner* *J. Am. Chem. Soc.*, **2022**, *144*, 14207–16
“Engineering electro- and photocatalytic carbon materials for CO₂ reduction by formate dehydrogenase”
196. Wang, Kalathil, Pornrungrroj, Sahm & Reisner* *Nature Catal.*, **2022**, *5*, 633–41
“Bacteria–photocatalyst sheet for sustainable carbon dioxide utilization”
195. Li, Vijeta, Casadevall, Gentleman, Euser & Reisner* *ACS Catal.*, **2022**, *12*, 8155–63
“Bridging plastic recycling and photocatalysis: deconstruction of polystyrene via a C–H oxidation pathway”
194. Andrei, Jagt, Rahaman, [2], MacManus-Driscoll*, Hoyer* & Reisner* *Nature Mater.*, **2022**, *21*, 864–68
“Long-term solar water and CO₂ splitting with photoelectrochemical BiOI–BiVO₄ tandems”
193. Rodríguez-Jiménez, Song, [6] Hammarström* & Reisner* *J. Am. Chem. Soc.*, **2022**, *144*, 9399–412
“Self-assembled liposomes enhance electron transfer for efficient photocatalytic CO₂ reduction”
192. Bozal-Ginesta, [8], Reisner, Brudvig, Wang & Durrant* *J. Am. Chem. Soc.*, **2022**, *144*, 8454–59
“Spectroelectrochemistry of water oxidation kinetics in molecular versus heterogeneous oxide Ir electrocatalysts”
191. Riesgo-Gonzalez, Bhattacharjee, [4], Grey, Reisner* & Wright* *Inorg. Chem.*, **2022**, *61*, 6223–33
“Single-source deposition of MO_x films containing Zr and 3d transition metals for catalytic water oxidation”
190. Sahm, Ciotti, Mates-Torres, [4] Garcia-Melchor* & Reisner* *Chem. Sci.*, **2022**, *13*, 5988–98
“Tuning the local chemical environment of ZnSe with dithiols towards photocatalytic CO₂ reduction”
189. Vijeta, Casadevall & Reisner* *Angew. Chem. Int. Ed.*, **2022**, *61*, e202203176
“An integrated carbon nitride-nickel photocatalyst for the amination of aryl halides using sodium azide”

188. Cobb, Badiani, Dharani, Wagner, [2], Pereira & Reisner* *Nature Chem.*, **2022**, *14*, 417–24
“Fast CO₂ hydration kinetics impair heterogeneous but improve enzymatic CO₂ reduction catalysis”
187. Edwardes Moore, Cobb, [2] Pereira & Reisner* *Proc. Natl. Acad. Sci. U.S.A.*, **2022**, *119*, e2114097119
“Understanding the local chemical environment of bioelectrocatalysis”
186. Badiani, Cobb, Wagner, Oliveira, Zacarias, Pereira & Reisner*, *ACS Catal.*, **2022**, *12*, 1886–97
“Elucidating film loss and the role of H-bonding of adsorbed redox enzymes by electrochemical QCM analysis”
185. Antón García, Edwardes Moore, Bajada, [4], Warnan* & Reisner*, *Nature Synth.*, **2022**, *1*, 77–86
“Photoelectrochemical hybrid cell for unbiased CO₂ reduction coupled to alcohol oxidation”
184. Wang, Pornrunroj, Linley & Reisner* *Nature Energy*, **2022**, *7*, 13–24
“Strategies to improve light utilization in solar fuel synthesis”
183. Bhattacharjee, Andrei, [2], Pichler & Reisner* *Adv. Funct. Mater.*, **2022**, *32*, 2109313
“Reforming of biomass and plastic waste using a bias-free Cu₃₀Pd₇₀ | perovskite | Pt photoelectrochemical device”
182. Klein, Rodríguez-Jiménez, [5], Reisner, Brouwer, Bonnet* *Chem. Eur. J.*, **2021**, *27*, 17203–12
“Shorter alkyl chains enhance diffusion and electron transfer between dye and catalysts in liposomes”
181. Wen, Wan, Vijeta, Casadevall, Buglioni, Reisner* & Noel* *ChemSusChem.*, **2021**, *14*, 5265–70
“Photocatalytic C–H azolation of arenes using heterogeneous carbon nitride in batch and flow”
180. Tanentzap*, Cottingham, Fonvielle, Riley, [4], Reisner & Lebreton *PLoS Biol.*, **2021**, *19*, e3001389
“Microplastics and anthropogenic fibre concentrations in lakes reflect surrounding land use”
179. Edwardes Moore, Andrei, [2], Pereira & Reisner* *Angew. Chem. Int. Ed.*, **2021**, *60*, 26303–07
“Semi-artificial photoelectrochemical tandem leaf with a CO₂-to-formate efficiency approaching 1%”
178. Lam & Reisner*, *Angew. Chem. Int. Ed.* **2021**, *60*, 23306–12
“TiO₂-Co(terpyridine)₂ photocatalyst for oxidation of cellulose to formate coupled to reduction of CO₂ to syngas”
177. Sahm, Ucoski, Roy & Reisner* *ACS Catal.*, **2021**, *11*, 11266–77
“Automated, continuous-flow platform to analyze semiconductor–metal complex systems for CO₂ reduction”
176. Piper, Edwards, van Wonderen, [3], Reisner, Clarke* & Butt* *Front. Microbiol.*, **2021**, *12*, 714508.
“Bespoke biomolecular wires for electron transfer: assembly of a functionalized multiheme electron conduit”
175. Pichler, Bhattacharjee, Rahaman, Uekert & Reisner*, *ACS Catal.*, **2021**, *11*, 9159–67
“Conversion of polyethylene to hydrocarbons via integrated tandem chemical–photo/electrocatalytic processes”
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