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PROFESSIONAL INTERESTS

Inorganic, organic, solid-state, reticular synthesis, and materials chemistry; nanoporous materials; molecular weaving; synthesis of metal-organic frameworks and covalent organic frameworks; carbon dioxide capture and conversion to fuels; hydrogen and methane storage; water harvesting from air; gas separations and adsorption; heterogeneous catalysis; sequence-dependent chemical structures.

EDUCATION AND ACADEMIC POSITIONS

2014-	Founding Director of Berkeley Global Science Institute, UC Berkeley
2014-	Co-Director of the California Research Alliance by BASF, UC Berkeley
2013-	Co-Director of the Kavli Energy Nanosciences Institute, UC Berkeley
2012-	James and Neeltje Tretter Chair Professor of Chemistry, UC Berkeley
2012-2020	Senior Faculty Scientist, Lawrence Berkeley National Laboratory
2012-2013	Director of the Molecular Foundry, Lawrence Berkeley National Laboratory
2006-2011	Irving and Jean Stone Chair in Physical Sciences, UCLA Christopher S. Foote Professor of Chemistry, UCLA
1999-2006	Robert W. Parry Collegiate Professor of Chemistry, University of Michigan
1992-1998	Assistant Professor, Department of Chemistry, Arizona State University, Tempe
1990-1992	NSF Postdoctoral Fellow, Harvard University
1986-1990	Ph.D., Chemistry, Best Thesis Award, University of Illinois-Urbana, Illinois
1983-1985	B.S., Chemistry, *Cum Laude;* State University of New York-Albany, New York

GLOBAL SCIENCE RESEARCH INITIATIVES

2018-2019	Advisor to ShanghaiTech University, Physical Sciences
2018-2019	Advisor to UC Berkeley-Wuhan University Innovative Research Center
2016-	Co-Founder of Foundry for Reticular Materials for Sustainability, University Putra Malaysia
2013-	Director of UC Berkeley- Saudi KACST Collaborative Center
2011-2016	Co-Executive Director, MANAR Research Center, Vietnam National University
2011-2022	Director of the Carbon Capture and Conversion Group at KFUPM, Saudi Arabia
2011-2017	Founder and Advisor, Center for Global Mentoring, UCLA
2009-2013	World Class Professor Program, KAIST, South Korea
2009-2016	Head, Center for Reticular Materials, NIMs, Tsukuba, Japan

HONORS AND AWARDS

2022 Honorary Professor, Tsinghua University, China
2021 VinFuture Prize for Outstanding Achievements in Emerging Fields, Vietnam
2021 International Solvay Chair in Chemistry, Belgium
2021 AAAFM-Nakamura Prize, United States
2021 Ertl Lecture Award, Fritz Haber Institute, Berlin, Germany
2021 Basolo Medal, Northwestern University, United States
2020 Royal Society of Chemistry Sustainable Water Award, United Kingdom
2020 German Chemical Society, August-Wilhelm-von-Hofmann Medal, Germany
2020 Kistiakowsky Prize Lecture, Harvard University, United States
2019 Nano Research Award, China
2019 Mohammed bin Rashid Medal of Science, United Arab Emirates
2019 Royal Swedish Academy of Sciences Gregori Aminoff Prize, Sweden
2018 ENI Award for Energy, Italy
2018 Prince Sultan bin Abdulaziz International Prize for Water, Saudi Arabia
2018 Wolf Prize in Chemistry, Israel
2018 BBVA Frontiers of Knowledge Award in Basic Sciences, Spain
2017 Kuwait Prize in Basic Sciences, Kuwait
2017 Albert Einstein World Award of Science, World Cultural Council
2017 Star of Science Award, Jordan
2017 Honorary Doctorate, University Putra Malaysia, Malaysia
2017 Japan Society of Coordination Chemistry International Award, Japan
2017 King Abdullah II Order of Distinction of the First Class, Jordan
2017 Royal Society of Chemistry Spiers Memorial Award, United Kingdom
2017 Bailar Medal, University of Illinois at Urbana-Champaign, United States
2016 TÜBA Academy Prize in Basic and Engineering Sciences, Turkey
2016 Mack Award, Ohio State University, United States
2015 Mustafa Prize in Nanoscience and Nanotechnology, Iran
2015 UNICAM Award, University of Camerino, Italy
2015 King Faisal International Prize in Science, Saudi Arabia
2015 Honorary Professor, Wuhan University, China
2013 China Nano Award, China
2013 Honorary Professor, Jilin University, China
2012 World Class Professor, Beijing Institute of Technology, China
2011 Honorary Professor, Fudan University, China
2011 Distinguished Professor, Vietnam National University, Vietnam
2010 Thomson Reuters ISI Web of Science Citation Laureate in Chemistry
2010 Royal Society of Chemistry Centenary Prize, United Kingdom
2009 World Class Professor, KAIST, South Korea
2009 Izatt-Christensen International Award in Macrocyclic Chemistry, United States
2009 American Chemical Society Award in the Chemistry of Materials, United States
2009 Miller Visiting Professorship at University of California-Berkeley, United States
2008 AAAS Newcomb Cleveland Prize, United States
2007 Materials Research Society Medal, United States
2007 Deans Recognition Award, UCLA, United States
2007 DOE Hydrogen Program R&D Award for Outstanding Achievements, United States
2006 H. N. McCoy Award for the greatest discovery in chem. Sci., UCLA, United States
2006 *Popular Science* magazine's *Brilliant 10* scientists and engineers, United States

2004 Sacconi Medal, Italian Chemical Society, Division of Inorganic Chemistry, Italy
2002 Chem. Chair's Excellence in Research Award, University of Michigan, United States
2002 3M Faculty Award, United States
2001 Visiting Professor, Université Louis Pasteur, Strasbourg, France
1999 Graduate College Mentor Award, Arizona State University, United States
1998 Exxon Award, ACS-Solid State Chemistry Division, United States
1997 NSF Faculty Early Career Development Award, United States
1995 Exxon Education Foundation Award, United States
1991 Elected to Sigma Xi Honor Society, University of Illinois-Urbana, United States

PROFESSIONAL ACADEMY MEMBERSHIPS

2022 Elected Member, German National Academy of Sciences Leopoldina, Germany
2022 Elected Member, American Academy of Arts and Sciences, United States
2022 Elected Honorary Fellow, Indian Academy of Sciences, India
2020 Honorary Member, Jordanian National Academy of Science and Engineering, Jordan
2020 Founding Member, Academy of Arab Scientists, Kuwait
2019 Elected Member, National Academy of Sciences, United States
2019 Elected Honorary Member, Turkish Academy of Sciences, Republic of Turkey
2018 Elected Member, The Islamic World Academy of Sciences (IAS), Jordan
2018 Elected Member, European Academy of Sciences, Belgium

ADVISORY AND EDITORIAL POSITIONS

2020- Member of Editorial Board, *Natural Sciences*
2019- Member of Editorial Board, *Nanoletters*
2019- Member of Editorial Board, *Molecular Frontiers Journal*
2019- Member of Advisory Board of Basque Center on Materials
2018- Member of Advisory Board of Instituto de Ciencia de Materiales de Madrid, CSIC
2018- ACS Award Selection Committee Chair
2018- Member of the Scientific Advisory Board, *ACS Central Science*
2017- International Advisory Board, Wuhan Synchrotron, China
2016-2018 ACS Award Selection Committee Member
2015 Member of Academic Review Committee, Peking University, Chemistry
2014- Associate Editor, *Journal of the American Chemical Society*
2014-2017 Member of Science Advisory Board, Shanghai Tech University
2014-2019 Member of the Board of Trustees, University of Sharjah, U.A.E.
2014-2018 Member, UC Berkeley Baker Fellows Program Academic Advisory Committee
2014-2019 Selection and Evaluation Committee, Institute for Basic Science, South Korea
2013-2018 Member, CHESS Club for cyber security, American Council of Science
2011-2013 Editorial Advisory Board, *Journal of the American Chemical Society*
2010-2019 Member of the Advisory Board of *Chemical Science*
2010 Member of the Advisory Board of Royal Society of Chemistry
2010 Panel Reviewer for Advance Research Projects Agency-Energy
2009-2015 Member of the international advisory board of Zeolites and Microporous Crystals
2008 Member of scientific committee of MOF08, Germany
2008 Member of the External Advisory Board, UCLA-DOE Institute for Genomics

2007 Reviewer of the Natural Sciences and Engineering Research Council of Canada
2006 Member of Editorial Board of *Chemistry Central Journal*
2005-2007 Member of Editorial Board of *Accounts of Chemical Research*
2005-2006 Guest Editor for *Journal of Solid State Chemistry*
2003 Founder and Organizer of the First NSF Reticular Chemistry Workshop
2002 Member of Editorial Board of *Nanoporous Materials*
2001-2004 Member of Editorial Board of *Inorganic Chemistry*
2001-2004 Co-organizer of the NSF Materials Workshop
2001-2002 Member of Editorial Board of *Chemistry of Materials*
2000-2001 Guest Editor for *Journal of Solid State Chemistry*
2000 Member of Editorial Board of *Solid State Sciences*

PUBLICATIONS

320 EDITORIAL — Hydration for Clean Air Today, D. A. Edwards, B. Norden, L. Karnath, O. M. Yaghi, C. J. Roy, D. Johanson, M. Ott, J. Brownstein, J. Grove, G. Tomson and P. Friberg,
Mol. Front. J., **2022**. https://doi.org/10.1142/S252973252101001X

319 Large Cages of Zeolitic Imidazolate Frameworks, H. Wang, X. Pei, M. J. Kalmutzki, J. Yang, and O. M. Yaghi,
Acc. Chem. Res., **2022**, *55*, 707–721.

318 Carbon Dioxide Capture Chemistry of Amino Acid Functionalized Metal–Organic Frameworks in Humid Flue Gas, H. Lyu, O. I. Chen, N. Hanikel, M. I. Hossain, R. W. Flaig, X. Pei, A. Amin, M. D. Doherty, R. K. Impastato, T. G. Glover, D. R. Moore, O. M. Yaghi,
J. Am. Chem. Soc., **2022**, *144*, 2387–2396.

317 Entanglement of Square Nets in Covalent Organic Frameworks, F. Jin, H. L. Nguyen, Z. Zhong, X. Han, C. Zhu, X. Pei, Y. Ma, O. M. Yaghi,
J. Am. Chem. Soc., **2022**, *144*, 1539–1544.

316 Single Crystals Heterogeneity Impacts the Intrinsic and Extrinsic Properties of Metal–Organic Frameworks, A. Fuchs, P. Mannhardt, P. Hirschle, H. Wang, I. Zaytseva, Z. Ji, O. M. Yaghi, S. Wuttke, E. Ploetz,
Adv. Mater., **2022**, *34*, 2104530.

315 Evolution of water structures in metal-organic frameworks for improved atmospheric water harvesting, N. Hanikel, X. Pei, S. Chheda, H. Lyu, W. Jeong, J. Sauer, L. Gagliardi, O. M. Yaghi,
Science, **2021**, *374*, 454-459.

314 Design of MOFs with Absolute Structures: A Case Study, H. Wang, X. Pei, D. M. Proserpio, O. M. Yaghi, S. Wuttke,
Isr. J. Chem., **2021**, *61*, 1-9.

313 From Molecules to Frameworks to Superframework Crystals, Z. Ji, R. Freund, C. S. Diercks, P. Hirschle, O. M. Yaghi, S. Wuttke,
Adv. Mater., **2021**, *33*, 2103808.

312 Envisioning the "Air Economy"—Powered by Reticular Chemistry and Sunlight for Clean Air, Clean Energy, and Clean Water, P. Yang, D. S. Clark, O. M. Yaghi,
Mol. Front. J., **2021**, *5*, 1-8.

311 'Eye'ofthe molecule—a viewpoint, S. Lee, O. M. Yaghi,
Faraday Discuss., **2021**, *231*, 145-149.

310 Docking of Cu(I) and Ag(I) in Metal-Organic Frameworks for Adsorption and Separation of Xenon, H. Wang, Z. Shi, J. Yang, T. Sun, B. Rungtaweevoranit, H. Lyu, Y.-B. Zhang, O. M. Yaghi,
Angew. Chem. Int. Ed., **2021**, *60*, 3417-3421.

309 Reticular Chemistry and Harvesting Water from Desert Air, C.-H. Liu, H. L. Nguyen, O. M. Yaghi,
AsiaChem, **2020**, *1*, 18-25.

308 3D Covalent Organic Frameworks Selectively Crystallized through Conformational Design, H. L. Nguyen, C. Gropp, Y. Ma, C. Zhu, O. M. Yaghi,
J. Am Chem. Soc., **2020,** *142*, 20335-20339.

307 The Reticular Chemist, O. M. Yaghi,
Nano Lett., **2020**, *20*, 8432-8434.

306 Design of Higher Valency in Covalent Organic Frameworks, C. Gropp, T. Ma, N. Hanikel, O. M. Yaghi,
Science, **2020**, *370*, eabd6406.

305 Digital Reticular Chemistry, H. Lyu, Z. Ji, S. Wuttke, O. M. Yaghi,
Chem, **2020**, *6*, 2219-2241.

304 Anisotropic Reticular Chemistry, W. Xu, B. Tu, Y. Shu, C.-C. Liang, C. S. Diercks, O. M. Yaghi, Y.-B. Zhang, H. Deng, Q. Li,
Nat. Rev. Mater., **2020**, *5*, 764-779.

303 Sequencing of Metals in Multivariate Metal-Organic Frameworks, Z. Ji, T. Li, O. M. Yaghi,
Science, **2020**, *369*, 674-680.

302 Ester-Linked Crystalline Covalent Organic Frameworks, C. Zhao, H. Lyu, Z. Ji, C. Zhu, O. M. Yaghi,
J. Am. Chem. Soc., **2020**, *142*, 14450-14454.

301 Metal–Organic Frameworks for Water Harvesting from Air, Anywhere, Anytime
W. Xu, O. M. Yaghi,
ACS Cent. Sci., **2020**, *6*, 1348-1354.

300 Standard Practices of Reticular Chemistry, C. Gropp, S. Canossa, S. Wuttke, F. Gándara, Q. Li, L. Gagliardi, O. M. Yaghi,
ACS Cent. Sci., **2020**, *6*, 1255-1273.

299 Pore Chemistry of Metal-Organic Frameworks, Z. Ji, H. Wang, S. Canossa, S. Wuttke, O. M. Yaghi,
Adv. Funct. Mater., **2020**, 202000238.

298 MOF Water Harvesters, N. Hanikel, M. S. Prévot, O. M. Yaghi,
Nat. Nanotechnol., **2020**, *15*, 348-355.

297 Reticulating 1D Ribbons into 2D Covalent Organic Frameworks by Imine and Imide Linkages, H. L. Nguyen, C. Gropp, O. M. Yaghi,
J. Am. Chem. Soc., **2020***, 142, 2771-2776.*

296 A Porous Covalent Organic Framework with Voided Square Grid Topology for Atmospheric Water Harvesting, H. L. Nguyen, N. Hanikel, S. J. Lyle, C. Zhu, D. M. Proserpio, O. M. Yaghi,
J. Am. Chem. Soc., **2020**, *142*, 2218-2221.

295 Precise Control of Molecular Self-Diffusion in Isoreticular and Multivariate Metal-Organic Frameworks, T. M. O. Popp, A. Z. Plantz, O. M. Yaghi, J. A. Reimer,
ChemPhysChem, **2020**, *21*, 32-35.

294 Architectural Stabilization of a Gold(III) Catalyst in Metal-Organic Frameworks, J. S. Lee, E. A.Kapustin, X. Pei, S. Llopis, O. M. Yaghi, F. D. Toste,
Chem, **2020**, *6*, 141-152.

293 **Textbook:** Introduction to Reticular Chemistry: Metal-Organic Frameworks and Covalent Organic Frameworks, O. M. Yaghi, M. J. Kalmutzki, C. S. Diercks, Wiley-VCH, Weinheim, **2019**, 509 pp.

292 Amidation, Esterification, and Thioesterification of a Carboxyl-Functionalized Covalent Organic Framework, L. Guo, S. Jia, C. S. Diercks, X. Yang, S. A. Alshmimri, O. Yaghi,
Angew. Chem. Int. Ed., **2019**, DOI: 10.1002/anie.201912579.

291 Coordinative Alignment in the Pores of MOFs for the Structural Determination of N-, S-, and P-Containing Organic Compounds Including Complex Chiral Molecules, X. Pei, H.-B. Bürgi, E. A. Kapustin, Y. Liu, O. M. Yaghi,
J. Am. Chem. Soc., **2019**, DOI: 10.1021/jacs.9b10501.

290 A Metal-Organic Framework of Organic Vertices and Polyoxometalate Linkers as a Solid-State Electrolyte, W. Xu, X. Pei, C. S. Diercks, H. Lyu, Z. Ji, O. M. Yaghi,
J. Am. Chem. Soc., **2019**, *141*, 17522-17526.

289 Three-Dimensional Phthalocyanine Metal-Catecholates for High Electrochemical Carbon Dioxide Reduction, R. Matheu, E. Gutierrez-Puebla, M. Á. Monge, C. S. Diercks, J. Kang, M. S. Prévot, X. Pei, N. Hanikel, B. Zhang, P. Yang, O. M. Yaghi,

J. Am. Chem. Soc., **2019**, *141*, 17081-17085.

288 Parallel Worlds Meet at Designed Interfaces with a Vast Number of Potential Frameworks, Z. Ji, O. M. Yaghi,
Biochemistry, **2019**, *58*, 3823-3824.

287 Rapid Cycling and Exceptional Yield in a Metal-Organic Framework Water Harvester, N. Hanikel, M. S. Prévot, F. Fathieh, E. A. Kapustin, H. Lyu, H. Wang, N. J. Diercks, T. G. Glover, O. M. Yaghi,
ACS Cent. Sci., **2019**, *5*, 1699-1706.

286 Reticular Chemistry in All Dimensions, O. M. Yaghi,
ACS Cent. Sci., **2019**, *5*, 1295-1300.

285 Reticular Synthesis of Multinary Covalent Organic Frameworks, B. Zhang, H. Mao, R. Matheu, J. A. Reimer, S. A. Alshmimri, S. Alshihri, O. M. Yaghi,
J. Am. Chem. Soc., **2019**, *141*, 11420-11424.

284 Multi-Step Solid-State Organic Synthesis of Carbamate-Linked Covalent Organic Frameworks, S. J. Lyle, T. M. O. Popp, P. J Waller, X. Pei, J. A. Reimer, O. M. Yaghi,
J. Am. Chem. Soc., **2019**, *141*, 11253-11258.

283 Isotherms of Individual Pores by Gas Adsorption Crystallography, H. S. Cho, J. Yang, X. Gong, Y.-B. Zhang, K. Momma, B. M. Weckhuysen, H. Deng, J. K. Kang, O. M. Yaghi, O. Terasaki,
Nat. Chem., **2019**, *11*, 562-570.

282 Carbon capture and conversion using metal–organic frameworks and MOF-based materials, M. Ding, R. W. Flaig, H. Jiang, O. M. Yaghi,
Chem. Soc. Rev., **2019**, *48*, 2783-2828.

281 Porous Crystalline Olefin-Linked Covalent Organic Frameworks, H. Lyu, C. S. Diercks, C. Zhu, O. M. Yaghi,
J. Am. Chem. Soc., **2019**, *141*, 6848-6852.

280 Reticular Chemistry: Molecular Precision in Infinite 2D and 3D, O. M. Yaghi,
Mol. Front. J., **2019**, *3*, 1-18.

279 Covalent Organic Frameworks: Organic Chemistry Extended into Two and Three Dimensions, S. J. Lyle, P. J. Waller, O. M. Yaghi,
Trends Chem., **2019**, *1*, 172-184.

278 Highly Active and Stable Single-Atom Cu Catalysts Supported by a Metal–Organic Framework, A. M. Abdel-Mageed, B. Rungtaweevoranit, M. Parlinska-Wojtan, X. Pei, O. M. Yaghi, R. J. Behm,
J. Am. Chem. Soc., **2019**, *141*, 5201-5210.

277 3D Covalent Organic Frameworks of Interlocking 1D Square Ribbons, Y. Liu, C. S. Diercks, Y. Ma, H. Lyu, C. Zhu, S. A. Alshmimri, S. Alshihri, O. M. Yaghi,
J. Am. Chem. Soc., **2019**, *141*, 677-683.

276 Local Electronic Structure of Molecular Heterojunctions in a Single-Layer 2D Covalent Organic Framework, T. Joshi, C. Chen, H. Li, C. S. Diercks, G. Wang, P. J. Waller, H. Li, J. Bredas, O. M. Yaghi, M. F. Crommie,
Adv. Mater., **2019**, *31*, 1805941.

275 Identification of the Strong Brønsted Acid Site in a Metal–Organic Framework Solid Acid Catalyst, C. A. Trickett, T. M. Osborn Popp, J. Su, C. Yan, J. Weisberg, A. Huq, P. Urban, J. Jiang, M. J. Kalmutzki, Q. Liu, J. Baek, M. P. Head-Gordon, G. A. Somorjai, J. A. Reimer, O. M. Yaghi,
Nature Chem., **2019**, *11*, 170-176.

274 Building a Global Culture of Science —The Vietnam Experience, K. E. Cordova, O. M. Yaghi,
Angew. Chem. Int. Ed., **2019**, *58*, 1552-1560.

273 Urea-Linked Covalent Organic Frameworks, C. Zhao, C. S. Diercks, C. Zhu, N. Hanikel, X. Pei, O. M. Yaghi,
J. Am. Chem. Soc., **2018**, *140*, 16438-16441.

272 Bioinspired Metal–Organic Framework Catalysts for Selective Methane Oxidation to Methanol, J. Baek, B. Rungtaweevoranit, X. Pei, M. Park, S. C. Fakra, Y. Liu, R. Matheu, S. A. Alshmimri, S. Alshehri, C. A. Trickett, G. A. Somorjai, O. M. Yaghi,
J. Am. Chem. Soc., **2018**, *140*, 18208-18216.

271 Conceptual Advances from Werner Complexes to Metal–Organic Frameworks, C. S. Diercks, M. J. Kalmutzki, N. J. Diercks, O. M. Yaghi,
ACS Cent. Sci., **2018**, *4*, 1457-1464.

270 Linking Molybdenum-Sulfur Clusters for Electrocatalytic Hydrogen Evolution, Z. Ji, C. A. Trickett, X. Pei, O. M. Yaghi,
J. Am. Chem. Soc., **2018**, *140*, 13618-13622.

269 Secondary Building Units as the Turning Point in the Development of the Reticular Chemistry of MOFs, M. J. Kalmutzki, N. Hanikel, O. M. Yaghi,
Sci. Adv., **2018**, *4*, eaat9180.

268 Molecular Weaving of Covalent Organic Frameworks for Adaptive Guest Inclusion, Y. Liu, Y. Ma, J. Yang, C. S. Diercks, N. Tamura, F. Jin, O. M. Yaghi,
J. Am. Chem. Soc., **2018**, *140*, 16015-16019.

267 Cytoprotective Metal-organic Frameworks for Anaerobic Bacteria, Z. Ji, H. Zhang, H. Liu, O. M. Yaghi, P. Yang,
Proc. Natl. Acad. Sci. U.S.A., **2018**, *115*, 10582-10587.

266 Crystalline Dioxin-Linked Covalent Organic Frameworks from Irreversible Reactions, B. Zhang, M. Wei, H. Mao, X. Pei, S. A. Alshmimri, J. A. Reimer, O. M. Yaghi,
J. Am. Chem. Soc., **2018**, *140*, 12715-12719.

265 Metal Coordination as a Template Strategy to Make Resilient Woven Materials, Y. Liu, O. M. Yaghi,
Bull. Jpn. Soc. Coord. Chem., **2018**, *71*, 12-17.

264 Global Engagement in Science: The University's Fourth Mission? L. Öhrström, P. Weiderud, M. Abu Youssef, O. M. Yaghi,
Science & Diplomacy, 2018, 42, 2.

263 Facilitating Laboratory Research Experience Using Reticular Chemistry, S. J. Lyle, R. W. Flaig, K. E. Cordova, O. M. Yaghi,
J. Chem. Educ., **2018**, *95*, 1512-1519.

262 Conversion of Imine to Oxazole and Thiazole Linkages in Covalent Organic Frameworks, P. J. Waller, Y. S. AlFaraj, C. S. Diercks, N. N. Jarenwattananon, O. M. Yaghi,
J. Am. Chem. Soc., **2018**, 140, 9099–9103.

261 Single-crystal X-ray Diffraction Structures of Covalent Organic Frameworks, T. Ma, E. A. Kapustin, S. X. Yin, L. Liang, Z. Zhou, J. Niu, L. Li, Y. Wang, J. Su, J. Li, X. Wang, W. D. Wang, W. Wang, J. Sun, O. M. Yaghi,
Science, **2018**, *361*, 48-52.

260 Impact of Disordered Guest-Framework Interactions on the Crystallography of Metal-Organic Frameworks, S. Lee, H. Buergi, S. A. Alshmimri, O. M. Yaghi,
J. Am. Chem. Soc., **2018**, 140, 8958–8964.

259 Practical Water Production from Desert Air, F. Fathieh, M. J. Kalmutzki, E. A. Kapustin, P. J. Waller, J. Yang, O. M. Yaghi,
Sci. Adv., **2018**, *4*, eaat9180.

258 The Geometry of Periodic Knots, Polycatenanes and Weaving from a Chemical Perspective: A Library for Reticular Chemistry, Y. Liu, M. O'Keeffe, M. M. J. Treacy, O. M. Yaghi,
Chem. Soc. Rev., **2018**, 47, 4642-4664.

257 Chemical Diversity in a Metal–Organic Framework Revealed by Fluorescence Lifetime Imaging, W. Schrimpf, J. Jiang, Z. Ji, P. Hirschle, D. C. Lamb, O. M. Yaghi, S. Wuttke,
Nat. Commun., **2018**, 9, 1647.

256 Metal–Organic Frameworks for Water Harvesting from Air, M. J. Kalmutzki, C. S. Diercks, O. M. Yaghi,
Adv. Mater., 2018, 1704304.

255 Adsorption-based Atmospheric Water Harvesting Device for Arid Climates H. Kim, S. R. Rao, E. A. Kapustin, L. Zhao, S. Yang, O. M. Yaghi, E. N. Wang,
Nat. Commun., 2018, *9*, 1191.

254 The Role of Reticular Chemistry in the Design of CO_2 Reduction Catalysts, C. S. Diercks, Y. Liu, K. E. Cordova, O. M. Yaghi,
Nature Materials, **2018**, 17, 301–307.

253 Reticular Electronic Tuning of Porphyrin Active Sites in Covalent Organic Frameworks for Electrocatalytic Carbon Dioxide Reduction, C. S. Diercks, S. Lin, N. Kornienko, E. A. Kapustin, E. M. Nichols, C. Zhu, Y. Zhao, C. J. Chang, O. M. Yaghi,
J. Am. Chem. Soc., **2018**, 140, 1116–1122.

252 A Synthetic Route for Crystals of Woven Structures, Uniform Nanocrystals, and Thin Films of Imine Covalent Organic Frameworks, Y. Zhao, L. Guo, F. Gándara, Y. Ma, Z. Liu, C. Zhu, H. Lyu, C. A. Trickett, E. A. Kapustin, O. Terasaki, O. M. Yaghi,
J. Am. Chem. Soc., **2017**, 139, 13166–13172.

251 Hydroisomerization of n-Hexane using Acidified Metal-Organic Framework and Platinum Nanoparticles, K. Sabyrov, J. Jiang, O. M. Yaghi, G. A. Somorjai,
J. Am. Chem. Soc., **2017**, 139, 12382−12385.

250 Spiers Memorial Lecture: Progress and prospects of reticular chemistry, B. Rungtaweevoranit, C. S. Diercks, M. J. Kalmutzki, O. M. Yaghi,
Faraday Discuss., **2017**, 201, 9-45.

249 The Chemistry of CO2 Capture in an Amine-Functionalized Metal-Organic Framework under Dry and Humid Conditions, R. W. Flaig, T. M. Osborn Popp, A. M. Fracaroli, E. A. Kapustin, M. J. Kalmutzki, R. M. Altamimi, F. Fathieh, J. A. Reimer, O. M. Yaghi,
J. Am. Chem. Soc., **2017**, 139, 12125-12128.

248 The Chemistry of Metal–Organic Frameworks for CO2 Capture, Regeneration and Conversion, C. A. Trickett, A. Helal, B. A. Al-Maythalony, Z. H. Yamani, K. E. Cordova, O. M. Yaghi,
Nature Rev. Mater., **2017**, 2, 17045.

247 Molecular Retrofitting Adapts a Metal−Organic Framework to Extreme Pressure, E. A. Kapustin, S. Lee, A. S. Alshammari, O. M. Yaghi,
ACS Cent. Sci., **2017**, 3, 662-667.

246 Calcium L-Lactate Frameworks as Naturally Degradable Carriers for Pesticides, J. Yang, C. A. Trickett, S. B. Alahmadi, A. Alshammari, O. M. Yaghi,
J. Am. Chem. Soc., **2017**, 139, 8118-8121.

245 The 'Folklore' and Reality of Reticular Chemistry, K. E. Cordova, O. M. Yaghi,
Mater. Chem. Front., **2017**, 1, 1304-1309.

244 Multivariate Metal-Organic Frameworks, A. Helal, Z. H. Yamani, K. E. Cordova, O. M. Yaghi,
Nat. Sci. Rev., **2017**, 4, 296-298.

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10,821,417 Zeolitic imidazolate frameworks
10,766,908 Calcium L-lactate frameworks as naturally degradable carriers
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10,683,644 Sorption-based atmospheric water harvesting device
10,597,408 Covalent organic frameworks with a woven structure
10,494,386 Mesoscopic materials comprised of ordered superlattices of microporous metal-organic frameworks
10,287,304 Acid, solvent, and thermal resistant metal-organic frameworks
9,988,409 Multi-dimensional networks
9,669,098 Metal-organic frameworks with exceptionally large pore aperatures
9,512,145 Porous reactive framework
9,269,473 Conductive open frameworks
9,102,609 Functionalization of organic molecules using metal-organic frameworks (MOFs) as catalysts
9,045,387 Oxidative homo-coupling reactions of aryl boronic acids using a porous copper metal-organic framework as a highly efficient heterogeneous catalyst
8,946,454 Chemical framework compositions and methods of use
8,916,722 Complex mixed ligand open framework materials
8,876,953 Carbon dioxide capture and storage using open frameworks
8,852,320 Preparation of metal-triazolate frameworks
8,841,471 Open metal organic frameworks with exceptional surface area and high gas storage capacity
8,809,546 Preparation of functionalized zeolitic frameworks
8,742,152 Preparation of metal-catecholate frameworks
8,735,161 Gas sensor incorporating a porous framework
8,709,134 Reversible ethylene oxide capture in porous frameworks
8,691,748 Edible and biocompatible metal-organic frameworks
8,674,128 Conductive organometallic framework
8,540,802 Adsorptive gas separation of multi-component gases
7,931,960 Shaped bodies containing metal-organic frameworks
7,799,120 Metal-organic frameworks with exceptionally high capacity for storage of carbon dioxide at room-temperature
7,662,746 High gas adsorption metal-organic framework
7,652,132 Implementation of a strategy for achieving extraordinary levels of surface area and porosity in crystals.
7,582,798 Covalently linked organic frameworks and polyhedra
7,411,081 Process for preparing and organometallic framework material
7,343,747 Metal-organic framework materials for gaseous hydrocarbon storage
7,309,380 Gas storage system
7,279,517 Process for the alkoxylation of organic compounds in the presence of novel framework materials

7,202,385	Process for the alkoxylation of monools in the presence of metallo-organic framework materials
7,196,210	Isoreticular metal-organic frameworks, process for forming the same, and systematic design of pore size and functionality therein, with application for gas storage
7,179,765	Process for preparing hydrogen peroxide from the elements
6,929,679	Method of storing, uptaking, releasing of gases by novel framework materials
6,624,318	Process for the epoxidation of an organic compound with oxygen or an oxygen-delivering compounds using catalysts containing metal-organic framework materials
6,617,467	Process for producing polyalkylene carbonates
5,648,508	Crystalline metal-organic microporous materials