

**Cafer T. Yavuz**

*Professor of Chemistry*

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*Citizenship: Republic of Korea*

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| **1. Professional Career** |
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| **Research Interest:** Exploring **sustainable nano & porous materials chemistry** to address global challenges in the environment, particularly those related to CO2, water, and methane.  |
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| **Employment:** **KAUST** – Professor (2020 – present)**KAIST** – Associate Professor (2013 –2020)  Assistant Professor (2010 –2013) **UCSB** – Postdoctoral Scholar (2008 –2010) with **Galen D. Stucky** on  porous inorganics for carbon dioxide capture. |
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| **Education:** **Rice University** – PhD (2001-2008) in Chemistry with **Vicki L. Colvin**.  *Thesis title*: Accessible and Green Manufacturing of Magnetite Nanocrystals  and Their Use in Magnetic Separations.**METU** – BS (1998-2001) in Chemistry, Middle East Technical University, Ankara, Turkey. Finished in only 3 years (the first time in the dept.) and ranked 1st. Studied manganese (III) acetate oxidation of ketones.  |
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| **Board Memberships:** **Chem** – Editorial Board Member (Jan 2016 – present)**ACS Sustainable Chemistry & Engineering** – Editorial Advisory Board Member (Jan 2021 – present)**ACS Applied Energy Materials** – Editorial Advisory Board Member (Jan 2020 – present)**Cell Reports Physical Science** – Editorial Board Member (Aug 2019 – present)**Advanced Sustainable Systems** – Advisory Board Member (Jan 2017 – present)**Beilstein J. Nanotech.** – Editorial Board Member (May 2018 – present)**RSC Advances** – Associate Editor (Oct 2015 – Oct 2017) **Institute for Basic Science (IBS)** – Advisory Board Member (Feb 2014 – Feb 2016)**Graphene Technologies** – Consultant (Jan 2009 – present)  |
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| **Awards & Honors:**- Top 100 National Achievements Award in Korea, 2020.- Top Technology Innovation Award for 2019, KAIST.- Outstanding Reviewer for Journal of Materials Chemistry A in 2018.- Nominated for the department chair position, 2017.- Teacher of the year nominee, KAIST, 2017.- Finalist for the Grand Prize for Creative Teaching in Celebration of the 44th Anniversary of Founding, KAIST, 2015 - Korea NRF A-STAR Excellent Young Researcher Award, 2013 (Given only one in the nation in the respective field, equivalent to US NSF PECASE award).- Profiled by Chemistry World, Oct 2013.- Member, Prime Minister’s Council of Turkish Scientists Living Abroad, 2012-2015.- Top Five (no. 2 of 5) Nanotech Breakthroughs of 2006, Forbes/Wolfe Nanotech Report.- Best & Brightest 2007 Honoree, “Six ideas that will change the world”, Esquire Magazine.- Robert A. Welch Foundation Pre-doctoral Fellowship, Rice University 2003-2007.- Top Score in ACS Organic Chemistry pre-doctoral test, Rice University, 2001.- Distinguished Scholarship, the Scientific & Technological Council of Turkey, 1998-2001.- Prime Minister’s Natural Sciences Fellowship, METU, Ankara, Turkey, 1998-2001.- Bronze Medal, 30th International Chemistry Olympiad, Melbourne, Australia, 1998.- Silver Medal, 29th International Chemistry Olympiad, Montreal, Canada, 1997.- Two Silver Medals, 5th & 6th National Chemistry Olympiad, Ankara, Turkey, 1996-1997.- Ranked 39th in National High School Matriculation Exam, Turkey (among ~500k), 1995. |

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| **2. Professional Activities** |
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| **Research Funding ($ per year)** |
| NRF Korea – Nano thrust flagship, Lead PI/5, Precious metal capture from e-waste ($300k) Mid-Career Research Funding, Single PI, Chemistry in nanopores ($100k) A-STAR Excellent Young Researcher, Single PI, CO2 conversion ($200k) IWT Smart Water Systems, co-PI/5, Heavy metal removal ($120k) KCRC, Lead PI/2, Post combustion CO2 capture ($200k)Saudi Aramco – CO2 Center, Single PI, Dry reforming catalyst development ($235k) CO2 Center, Single PI, Catalytic cyclic carbonate formation ($165k) CO2 Center, Single PI, Catalytic acrylic acid formation ($50k) CO2 Center, Lead PI/4, On board CO2 capture and storage ($120k)QNRF Qatar – NPRP, Lead PI/3, CO2 capture by porous inorganics ($130k) NPRP, co-PI/4, THz induced methane clathrate inhibition ($40k) NPRP, Lead PI/3, CO2 capture by porous organics ($130k) NPRP, co-PI/3, Ceramic mixed oxide Na & Li-ion batteries ($65k)Hyundai – HHI, co-PI/4, Post combustion CO2 capture & commercialization ($120k)Samsung – Sensors, Single PI, CO2 sensor on a mobile phone ($90k) Appliances, Single PI, CO2 removal from low concentration streams ($80k)KAIST – HRHR, Single PI, Removal of organic pollutants from water ($50k) HRHR, Single PI, Flexible Li-ion batteries ($50k) EEWS, Lead PI/2, Pre-combustion CO2 capture ($100k) EEWS, co-PI/5, Arsenic removal from wastewater ($50k)*Total budget brought to KAIST 2010-2020:* $5,100,000 (PI net share) *Total budget at KAUST in 2021: $1,420,000* |
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| **Teaching & Mentorship** |
| KAUST – ChemS 320 Advanced Organic Chemistry I, Fall 2021KAIST – EEW 532 Functional Nanoscale Oxides, Fall 2010-present EEW 533 Advanced Catalytic (Carbon) Chemistry, Spring 2011- present EEW 601 Energy and Materials Science, Fall 2010 Used Education 3.0 in EEW 532 and 533 (equivalent to Coursera)  *Current Group:* 3 postdocs, 7 graduate students, 3 undergraduates  *Alumni:* 7 postdocs, 4 PhD, 8 MS, 6 UGs, 2 visiting grad studentsRice – TA for CHEM 352, Advanced Synthetic Chemistry, Fall 2001 TA for CHEM 215, Organic Chemistry, Spring 2002, 2003 TA for CHEM 121, General Chemistry, Fall 2002 Trained 12 undergraduate helpers at “Team Magnet”Turkey – Instructor, International Chemistry Olympiad (IChO) National Team, 1999, 2000, 2001Trained nationally selected students that won 12 medals in IChOs representing Turkey |
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| **Selected International Conference Organization and Scientific Committees**1. ***Symposium chair for 2***, Pacifichem 2021, Honolulu, HI, (1) Porous materials and nanocomposites for catalysis; (2) Energy-Related Materials in the Age of Globalization
2. ***Symposium chair***, Beilstein Symposium 2019 on New Directions for Nanoporous Materials, Frankfurt, Germany
3. ***Keynote lecture,*** 5th International Symposium on Energy Chemistry & Materials (ISECM), Fudan University, Shanghai, P. R. China
4. ***Plenary speaker,*** 10th International Conference on Advancements in Polymeric Materials (APM-2019), Chennai, India
5. ***Keynote lecture,*** The International Collaborative 111 Project on Reticular Chemistry of Porous Polymers Opening Ceremony, 2018, Changchun, P. R. China.
6. ***Symposium chair,*** MRS Spring 2018, Phoenix, Arizona, NM04 - Porous Materials and Nanocomposites for Catalysis
7. ***Keynote lecture***, PolyMAT spotlight 2018, San Sebastian, Spain, International Conference on Macromolecular Materials
8. ***Scientific committee member***, POPs 2017, Zhangjiajie, China, 1st International Symposium on Porous Organic Polymers
9. ***Conference chair***, 2013, Daejeon, Korea, Carbon Dioxide Capture and Separation by Porous Solids
10. ***Conference chair***, 2012, Daejeon, Korea, Carbon Dioxide (CO2) Capture and Separation by Porous Solids
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| **Seminars** – Stanford, UCLA, UC Berkeley, Brown, U Iowa, Princeton, Rice, NC State, USC,  Texas A&M, Sabanci, DTU, LMU, Academia Sinica, UNIST, SNU, Argonne, etc.**Conferences** – ACS, MRS, AIChE, AEESP, EUPOC, GRC, KCS, MOF, SICC, ISACS.  Organized two workshops, session chair for five more.**Reviewer** – *Funding:* ERC, ACS PRF, ETH Zurich, Czech Academy*Journal*: Nature Nano., Nature Comm., Nature Energy, Angewandte, Chem, JACS, ES&T, Joule, ACS Nano, Adv. Mater., Chem. Mater., J. Mater. Chem., Chem. Comm., Inorg. Chem., J. Phys. Chem., RSC Adv., Cryst. Eng. Comm., Chem. Eng. J., Cryst. Growth Des., Polym. Chem., Nanoscale, Dalton Trans., and others *Tenure*: 2 KAIST professors**Committees** – Faculty Search, Education, Admissions, PR & Publicity (chair) |

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| **3. Full List of Publications**  |
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| **Journal Publications (\*: corresponding, U: Yavuz lab member)** |
| 113. Optimizing bromide anchors for easy tethering of amines, nitriles and thiols in porous organic polymers towards enhanced CO2 capture, V. Rozyyev, M. S. Yavuz, D. Thirion, T. S. Nguyen, T. P. N. Nguyen, A. Emwas, **C. T. Yavuz\***, ***Micropor. Mesopor. Mater.***, accepted (2021).  |
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| 112. [Design of low cost, scalable, and high-performance TiS2 thermoelectric materials via wet ball-milling process](https://link.springer.com/article/10.1007/s10854-021-06914-2%22%20%5Ct%20%22_blank), P. Veluswamy\*, S. Subramanian, M. Hassan, **C. T. Yavuz**, H. J. Ryu, B. J. Cho\*, ***J. Mater. Sci.: Mater. Electron.***, accepted (2021). |
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| 111. [Rapid access to ordered mesoporous carbons for chemical hydrogen storage](https://onlinelibrary.wiley.com/doi/10.1002/anie.202109215%22%20%5Ct%20%22_blank), U. Jeong§, H. Kim§, S. Ramesh, N. A. Dogan, S. Wongwilawan, S. Kang, J. Park, E. S. Cho\*, **C. T. Yavuz\***, ***Angew. Chem. Int. Ed.***, 60, 22478–22486 (2021). §: Equal contribution |
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| 110. [Solvent Vapor Annealing, Defect Analysis, and Optimization of Self-Assembly of Block Copolymers Using Machine Learning Approaches](https://pubs.acs.org/doi/full/10.1021/acsami.1c05056%22%20%5Ct%20%22_blank), G. Ginige, Y. Song, B. C. Olsen, E. J. Luber\*, **C. T. Yavuz**, J. M. Buriak\*, ***ACS Appl. Mater. Interfaces***, 13, 24, 28639–28649, (2021). |
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| 109. [Bisphenol–based cyanide sensing: Selectivity, reversibility, facile synthesis, bilateral “OFF-ON” fluorescence, C2ν structural and conformational analysis](https://www.sciencedirect.com/science/article/pii/S1386142521004571%22%20%5Ct%20%22_blank), Z. Ullah, P. A. Sonawane, T. S. Nguyen, M. Garai, D. G. Churchill\*, **C. T. Yavuz\***, ***Spectrochim. Acta A***, 259, 119881 (2021). |
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| 108. [Extensive Screening of Solvent-linked Porous Polymers through Friedel-Crafts Reaction for Gas Adsorption](https://onlinelibrary.wiley.com/doi/full/10.1002/aesr.202100064), V. Rozyyev, Y. Hong, M. S. Yavuz, D. Thirion, **C. T. Yavuz\******Adv. Energy Sustain. Res.***, 2, 10, 2100064 (2021). *Open Access* |
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| 107. [Alkyl-linked porphyrin porous polymers for gas capture and precious metal adsorption](https://onlinelibrary.wiley.com/doi/full/10.1002/smsc.202000078), Y. Hong§, V. Rozyyev§, **C. T. Yavuz\*, *Small Sci.***, 1, 6, 2000078 (2021). §: Equal contribution, *Open Access* |
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| 106. [Reaction: Porous Organic Polymers for Uranium Capture](https://www.sciencedirect.com/science/article/pii/S2451929421000401%22%20%5Ct%20%22_blank), **C. T. Yavuz, *Chem***, 7, 271–280 (2021).  |
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| 105. [Asynchronous double Schiff base formation of pyrazole porous polymers for selective Pd recovery](https://onlinelibrary.wiley.com/doi/10.1002/advs.202001676%22%20%5Ct%20%22_blank), M. Garai§, M. Mahato§, Y. Hong, V. Rozyyev, U. Jeong, Z. Ullah, **C. T. Yavuz\*, *Adv. Sci.***, accepted, (2021). §: Equal contribution, *Open Access* |
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| 104. [Robust Mesoporous Zr-MOF with Pd Nanoparticles for Formic-Acid-Based Chemical Hydrogen Storage](https://www.sciencedirect.com/science/article/pii/S2590238520306809?dgcid=author" \t "_blank), M. Garai, **C. T. Yavuz\*, *Matter***, 4, 10–25, (2021). *Preview* |
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| 103. [Cesium Ion-Mediated Microporous Carbon for CO](https://onlinelibrary.wiley.com/doi/10.1002/cnma.202000541%22%20%5Ct%20%22_blank)[2](https://onlinelibrary.wiley.com/doi/10.1002/cnma.202000541%22%20%5Ct%20%22_blank) [Capture and Lithium-Ion Storage](https://onlinelibrary.wiley.com/doi/10.1002/cnma.202000541%22%20%5Ct%20%22_blank), H. J. Lee, D. Ko, J-S. Kim, Y. Park, I. Hwang, **C. T. Yavuz**, J. W. Choi\****ChemNanoMat***, 7, 150 –157 (2021). |
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| 102. [Light-activated Polydopamine Coatings for Efficient Metal Recovery from Electronic Wastes](https://www.sciencedirect.com/science/article/pii/S1383586620321481), K. R. Kim, J. Kim, J. W. Kim, **C. T. Yavuz**, M. Y. Yang\*, Y. S. Nam\*, ***Sep. Purif. Technol.,*** 254, 117674 (2021). |
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| 101. [Covalent amine tethering on ketone modified porous organic polymers for enhanced CO2 capture](https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/cssc.202002190), P. Jorayev, I. Tashov, V. Rozyyev, T. S. Nguyen, N. A. Dogan, **C. T. Yavuz\***, ***ChemSusChem***, 13, 6433-6441 (2020). *Invited Paper* |
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| 100. [Precious metal recovery from electronic waste by a porous porphyrin polymer](https://www.pnas.org/content/early/2020/06/17/2000606117), Y. Hong, D. Thirion, S. Subramanian, M. Yoo, H. Choi, H. Y. Kim, J. F. Stoddart\*, **C. T. Yavuz**\*, ***Proc. Natl. Acad. Sci.****,* 117 (28), 16174-16180(2020). |
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| 99. [Gold recovery from e-waste by porous porphyrin-phenazine network polymers](https://pubs.acs.org/doi/10.1021/acs.chemmater.0c01734), T. S. Nguyen, Y. Hong, N. A. Dogan, **C. T. Yavuz\***, ***Chem. Mater.***, 32, 12, 5343–5349 (2020). |
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| 98. [Direct Z-scheme Tannin-TiO2 Heterostructure for Photocatalytic Gold Ion Recovery from Electronic Waste](https://pubs.acs.org/doi/full/10.1021/acssuschemeng.0c00860), K. R. Kim, S. Choi, **C. T. Yavuz**, Y. S. Nam\*, ***ACS Sustain. Chem. Eng.***, 8, 19, 7359–7370 (2020). |
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| 97. [The redox and non-redox CO2 utilization: Dry reforming of methane and catalytic cyclic carbonate formation](https://pubs.acs.org/doi/10.1021/acsenergylett.0c00406), S. Subramanian, Y. Song, D. Kim, **C. T. Yavuz\***, ***ACS Energy Lett.****,* 5, 5, 1689–1700 (2020). *Invited paper* |
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| 96. [Triazatruxene Based Ordered Porous Polymer: High Capacity CO2, CH4, H2 Capture, Heterogeneous Suzuki-Miyaura Catalytic Coupling and Thermoelectric Properties](https://pubs.acs.org/doi/10.1021/acsaem.0c00539), A. E. Sadak\*, E. Karakuş\*, Y. Chumakov, N. A. Dogan, **C. T. Yavuz, *ACS Appl. Energy Mater.***, 3, 5, 4983–4994 (2020). |
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| 95. [Thiourea-based extraction and deposition of gold for electroless nickel immersion gold process](https://pubs.acs.org/doi/10.1021/acs.iecr.0c00493), J. Son, Y. Hong, **C. T. Yavuz**, J. Han\*, ***Ind. Eng. Chem. Res.***, 59, 16, 8086-8092 (2020). |
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| 94. [Quaternary Ammonium Salt Grafted Nanoporous Covalent Organic Polymer for Atmospheric CO2 Fixation and Cyclic Carbonate Formation](https://www.sciencedirect.com/science/article/pii/S0920586120301711?via%3Dihub), D. Kim, S. Subramanian, D. Thirion, Y. Song, M. Otaibi, A. Jamal, **C. T. Yavuz\***, ***Catal. Today,*** accepted *(2020)*. *Invited paper* |
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| 93. [Quantifying nitrogen effect on CO2 capture using isoporous network polymers](https://pubs.rsc.org/en/content/articlelanding/2020/CC/D0CC00982B), T. S. Nguyen, **C. T. Yavuz\***, ***Chem. Commun.****,* 56, 4273-4275 (2020).*Cover image* |
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| 92. [Dry reforming of methane by stable Ni-Mo nanocatalysts on single crystalline MgO](https://science.sciencemag.org/content/367/6479/777), Y. Song, E. Ozdemir, S. Ramesh, A. Adishev, S. Subramanian, A. Harale, M. Albuali, B. Fadhel, A. Jamal, D. Moon, S. H. Choi, **C. T. Yavuz\*, *Science****,* 367, 6479, 777-781 (2020). |
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| 91. [Gold recovery using porphyrin-based polymer from electronic waste: Gold desorption and adsorbent regeneration](https://www.sciencedirect.com/science/article/pii/S0048969719353987), J. Son, Y. Hong, G. Han, T. S. Nguyen, **C. T. Yavuz**, J. Han\*, ***Sci. Total Environ.***, 704, 135405 (2020). |
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| 90. [Catalytic non-redox carbon dioxide fixation in cyclic carbonates](https://www.sciencedirect.com/science/article/pii/S2451929419304632), S. Subramanian§, J. Oppenheim§, D. Kim§, T. S. Nguyen, W. M. H. Silo, B. Kim, W. A. Goddard III\*, **C. T. Yavuz\* *Chem****,* 5, 3232-3242 (2019)*.* §: Equal contribution.  |
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| 89. [Zwitterion π–conjugated nanoporous polymer based on guanidinium and β-ketoenol as a heterogeneous organo-catalyst for chemical fixation of CO2 into cyclic carbonates](https://aip.scitation.org/doi/full/10.1063/1.5122017), M. Garai, V. Rozyyev, Z. Ullah, A. Jamal, **C. T. Yavuz\***, ***APL Mater.***, 7, 111102 (2019). *Open Access &* *Invited Paper* |
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| 88. [Fluorinated covalent organic polymers for high performance sulfur cathodes in lithium–sulfur batteries](https://pubs.acs.org/doi/10.1021/acs.chemmater.9b01986), H. Shin§, D. Kim§, H. J. Kim§, J. Kim, K. Char\*, **C. T. Yavuz\***, J. W. Choi\*, ***Chem. Mater.***, 31, 19, 7910-7921 (2019). §: Equal contribution |
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| 87. [Processing nanoporous organic polymers in liquid amines](https://www.beilstein-journals.org/bjnano/articles/10/179), J. Byun\*, D. Thirion, **C. T. Yavuz**, ***Beilstein J. Nanotech.***, 10, 1844–1850 (2019). *Open Access* |
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| 86. [High-capacity methane storage in flexible alkane-linked porous aromatic network polymers](https://www.nature.com/articles/s41560-019-0427-x), V. Rozyyev, D. Thirion, R. Ullah, J. Lee, M. Jung, H. Oh, M. Atilhan\*, **C. T. Yavuz**\*, ***Nat. Energy***, 4, 604-611 (2019). *Highlighted in*[*Chemistry World*](https://www.chemistryworld.com/news/porous-polymer-offers-methane-storage-solution-/3010731.article)*and*[*C&EN*](https://cen.acs.org/materials/polymers/Super-sorbent-soaks-methane-under/97/i29) |
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| 85. [Sustainable synthesis of superhydrophobic perfluorinated nanoporous networks for small molecule separation](https://pubs.acs.org/doi/10.1021/acs.chemmater.9b01447), S. Kim§, D. Thirion§, T. S. Nguyen, B. Kim, N. A. Dogan, **C. T. Yavuz\***, ***Chem. Mater.***, 31, 14, 5206-5213, (2019). §: Equal contribution |
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| 84. [Inversion of dispersion: Colloidal stability of calixarene modified metal-organic framework nanoparticles in non-polar media](https://pubs.acs.org/doi/10.1021/jacs.9b04198), U. Jeong N. A. Dogan, M. Garai, T. S. Nguyen, J. F. Stoddart, **C. T. Yavuz\***, ***J. Am. Chem. Soc.****,* 141, 31, 12182-12186, (2019). |
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| 83. [Polypyrrole decorated mechanically robust conductive nanocomposites via solution blending and in-situ polymerization techniques](https://pubs.acs.org/doi/full/10.1021/acs.iecr.9b01187)”, M. Zahra, S. Zulfiqar, **C. T. Yavuz**, H. S. Kweon, M. I. Sarwar\*, ***Ind. Eng. Chem. Res.***, 58, 25, 10886-10893 (2019). |
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| 82. [Photochemically-enhanced Selective Adsorption of Gold Ions on Tannin-coated Porous Polymer Microspheres](https://pubs.acs.org/doi/10.1021/acsami.9b05197), J. Kim, K. R. Kim, Y. Hong, S. Choi, **C. T. Yavuz**, J. W. Kim\*, Y. S. Nam\*, ***ACS Appl. Mater. Interfaces***, 11, 24, 21915-21925 (2019). |
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| 81. [Sustainable porous polymer catalyst for size-selective cross-coupling reactions](https://pubs.acs.org/doi/10.1021/acssuschemeng.9b01729), S. Kim, B. Kim, N. A. Dogan, **C. T. Yavuz\*, *ACS Sustain. Chem. Eng.****,* 7, 10865-10872 (2019). |
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| 80. [Radioactive Strontium removal from seawater by a MOF via two-step ion exchange](https://www.sciencedirect.com/science/article/pii/S245192941930124X), M. Garai, **C. T. Yavuz\*, *Chem***, 5 (4), 750-752 (2019). *Preview* |
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| 79. [Nanoporous polymer microspheres with nitrile and amidoxime functionalities for gas capture and precious metal recovery from e‑waste](https://pubs.acs.org/doi/10.1021/acssuschemeng.8b05490), N. A. Dogan, Y. Hong, E. Ozdemir, **C. T. Yavuz\*, *ACS Sustain. Chem. Eng.*** 7 (1), 123–128 (2019). *Invited paper for the special issue on advanced porous materials* |
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| 78. [A combined experimental and theoretical study on gas adsorption performance of amine and amide porous polymers](https://www.sciencedirect.com/science/article/pii/S138718111830636X), R. Ullah, H. A. Patel, S. Aparicio, **C. T. Yavuz\***, M. Atilhan\*, ***Micropor. Mesopor. Mater.*** 279, 61-72 (2019). |
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| 77. [Structural Elucidation of Covalent Organic Polymers (COP) and Their Linker Effect on Gas Adsorption Performance via Density Functional Theory Approach](https://onlinelibrary.wiley.com/doi/full/10.1002/slct.201801849), S. Aparicio\*, **C. T. Yavuz**, M. Atilhan\*, ***ChemistrySelect*** 3, 8294– 8305 (2018). |
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| 76. [Applicability of disulfide-polymer particles surface embedded on alginate beads for cadmium removal from airport derived stormwater](https://www.sciencedirect.com/science/article/pii/S2213343718303130), D. Ko, H. Kim, H. Lee, **C. T. Yavuz**, H. R. Andersen, Y. Hwang\*, ***J. Environ. Chem. Eng.***, 6, 4124–4129 (2018). |
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| 75. [Disulfide polymer grafted porous carbon composites for heavy metal removal from stormwater runoff](https://www.sciencedirect.com/science/article/pii/S1385894718307654), D. Ko\*, P. D. Mines, M. H. Jakobsen, **C. T. Yavuz**, H. C. B. Hansen, H. R. Andersen, ***Chem. Eng. J.****,* 348, 685–692 (2018). |
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| 74. [A catalytic role of surface silanol groups in CO2 capture on the amine-anchored silica support](https://pubs.rsc.org/en/content/articlelanding/2018/cp/c7cp07973g), M. Cho, J. Park, **C. T. Yavuz**, Y. Jung\*, ***Phys. Chem. Chem. Phys.***, 20, 12149-12156, (2018). |
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| 73. [Molecular insights into benzimidazole-linked polymer interactions with carbon dioxide and nitrogen](https://onlinelibrary.wiley.com/doi/full/10.1002/slct.201800253), S. Aparicio\*, **C. T. Yavuz**, M. Atilhan\*, ***ChemistrySelect***, 3, 3691 – 3701, (2018). |
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| 72. [Highly efficient catalytic cyclic carbonate formation by pyridyl salicylimines](https://pubs.acs.org/doi/full/10.1021/acsami.8b00485), S. Subramanian, J. Park, J. Byun, Y. Jung, **C. T. Yavuz\*,** ***ACS Appl. Mater. Interfaces***, 10 (11), 9478–9484, (2018). |
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| 71. [Granular activated carbon with grafted nanoporous polymer enhances nanoscale zero-valent iron impregnation and water contaminant removal](https://www.sciencedirect.com/science/article/pii/S1385894718301189), P. D. Mines, B. Uthuppu, D. Thirion, M. H. Jakobsen, **C. T. Yavuz**, H. R. Andersen, Y. H. Hwang\*, ***Chem. Eng. J.***, 339, 22-31, (2018). |
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| 70. [An all-purpose porous cleaner for acid gas removal and dehydration of natural gas](https://www.sciencedirect.com/science/article/pii/S2451929417304424), V. Rozyyev, **C. T. Yavuz\*, *Chem***, 3, 5, 719-721, (2017). |
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| 69. [Sustainable nanoporous benzoxazole networks as metal-free catalysts for one-pot oxidative self-coupling of amines by air oxygen](https://onlinelibrary.wiley.com/doi/10.1002/adsu.201700089), S. Subramanian, H. A. Patel, Y. Song, **C. T. Yavuz\*,** ***Adv. Sustain. Syst.***, 1, 1700089, (2017). |
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| 68. [Reversible water capture by a charged metal-free porous polymer](https://www.sciencedirect.com/science/article/pii/S0032386117305566), J. Byun, H. A. Patel, D. Thirion, B. A. Fadhel, **C. T. Yavuz\*, *Polymer***, 126, 308-313, (2017). *Invited paper for the special issue on Porous Polymers* |
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| 67. [Selective removal of cationic micro-pollutants using disulfide-linked network structures](https://pubs.rsc.org/en/content/articlelanding/2017/ra/c7ra04775d), M. S. Atas, S. Dursun, H. Akyildiz, M. Citir, **C. T. Yavuz\***, M. S. Yavuz\*, ***RSC Adv.***, 7, 25969-25977, (2017). *Open Access* |
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