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Professional Preparation

2004-2008: The Scripps Research Institute, Department of Chemistry and the Skaggs Institute for Chemical Biology, La Jolla, CA, Skaggs Postdoctoral Fellow, Mentor: Prof. Julius Rebek, Jr.

1999-2004: Princeton University, Department of Chemistry, Princeton, NJ. Degree: Ph.D (Aug 2004) Mentor: Prof Martin F. Semmelhack.

1999: Emmanuel College, Cambridge University, Department of Chemistry, Cambridge, UK. Degree: M.Sci (Natural Sciences, 1999) Mentor: Dr. Stuart Warren.

1995-1999: Emmanuel College, Cambridge University, Department of Chemistry, Cambridge, UK. Degree: B.A. (Natural Sciences, 1999).

Appointments

Professor, University of California, Riverside	2018-current
Associate Professor, University of California, Riverside	2014-2018
Assistant Professor, University of California, Riverside	2008-2014
Skaggs Postdoctoral Fellow, The Scripps Research Institute, La Jolla	2004-2008
Graduate Teaching/Research Assistant, Princeton University, NJ	1999-2004

Awards and Honors

University of California, Riverside Faculty Development Award, 2013.

2013 Chancellor's Award for Fostering Excellence in Undergraduate Research and Creative Achievement.

2012 NSF CAREER Award

2011-2012 Hellman Fellowship, University of California, Riverside, July 2011.

University of California, Riverside Regents' Faculty Fellowship, 2009.

Association of Princeton Graduate Alumni University Teaching Award, June 2002.

Pickering Teaching Award, Princeton University, June 2001.

Research Support

Current

NSF CHE 2002619 (PI, 100%), \$480,000 09/01/2020 - 08/31/2023

"Functional Metal-Ligand Assemblies: Reactivity, Self-sorting and Catalysis"

NIH NIGMS (co-PI, 10%, Leonard Mueller PI), \$2,289,919 09/01/2017 - 08/31/2022

"Chemically-Rich Structure and Dynamics in the Active Site of Tryptophan Synthase"

NSF CHE 1707347 (Co-PI, 50%, Wenwan Zhong PI), \$870,000 07/01/2017 - 06/30/2023

"Synthetic Receptor-Based Arrays for Sensing Post-Translationally Modified Proteins and Peptides"

Completed

COR Fellowship, UC Riverside, \$5000 07/01/2019 - 06/30/2021

NSF CHE 1708019 (PI, 100%), \$476,138 09/15/2017 - 08/31/2021

"Functional Metal-Ligand Assemblies: Reactivity, Self-sorting and Catalysis"

COR Fellowship, UC Riverside, \$5500 07/01/2017 - 06/30/2019

UC ILTI (Co-PI, 50%, Matthew Casselman PI), \$110,000 07/01/2017 - 06/30/2019

"ILTI Competitive Course Award, "Organic Chemistry 08A, 08B, and 08C"

NSF IUES (Co-PI, 40%, Jack Eichler PI), \$249,630 07/15/2015 - 01/30/2019

"A NIMBLE Approach to Active Learning in Large Enrollment Introductory Chemistry Courses (NIMBLE = New Implementations of Massive Blended Learning)"

NSF CAREER Award (PI, 100%), \$600,000 02/01/2012 - 01/31/2018

"Functional Metal-Ligand Assemblies: Self-Sorting, Supramolecular Catalysis and Molecular Dynamics"
 UC Riverside IGF Program (PI, 80%), \$45,000 08/01/2013 - 06/30/2014
"Synthetic Receptors as Selective Hosts and Transfection Agents in Living Cells"
 UC Riverside IGF Program (PI, 50%), 10,000 07/01/2015 - 06/30/2016
"Detection of Post-Translational Modifications with Synthetic Receptor Based Sensors"
 UC Cancer Research Coordinating Committee (PI, 100%), \$50,000 07/01/2014 - 06/30/2015
"Synthetic Receptors As New Methods Of Drug Delivery For Cancer Therapy"
 Faculty Innovation Grant, UC Riverside, \$5000 02/01/2015 - 06/01/2016
 COR Fellowship, UC Riverside, \$6500 07/01/2014 - 06/30/2016
 ACS Petroleum Research Fund (PI, 100%), \$100,000 09/01/2010 - 08/31/2012
"Regioselective Catalytic C-H Oxidation of Hydrocarbons in Aqueous Solution"
 Hellman Faculty Foundation Grant (PI, 100%), \$30,000 07/01/2011 - 06/30/2013
"Molecular Motion and Molecular Recognition at the Nanoscale"
 NSF TUES (Co-PI, 40%, Jack Eichler PI), \$199,350 07/01/2012 - 06/30/2015
"Developing Pedagogies of Engagement in Foundation Chemistry Courses: Enhancing Minority Retention in STEM Majors"
 Regents Faculty Fellowship, UC Riverside, \$5000 07/15/2009 - 06/30/2010
 Regents Faculty Fellowship, UC Riverside, \$4400 07/15/2013 - 06/30/2014
 Hellman Faculty Foundation Grant, \$30,000 07/01/2011 - 06/30/2013

Invited Talks

Syracuse University, Apr 2010	University of California, Los Angeles, May 2013
California State University, Long Beach, Sep 2010	University of Tennessee, Jan 2014
American Chemical Society Western Regional Meeting, Mar 2011	San Diego State University, Feb 2014
Princeton University, Nov 2011	American Chemical Society National Meeting, Aug 2014 (Self-Assembled Coordination Architectures Symposium)
University of Southern California, Apr 2012	University of South Dakota, March 2015
University of Texas - El Paso, September 2012	NSF workshop "Accelerating our Understanding of Supramolecular Chemistry in Aqueous Solutions", June 2015
University of California, San Diego, October 2012	PacifiChem, December 2015
University of California, Santa Barbara, November 2012	University of Sheffield, Feb 2017
University of California, Irvine, November 2012	University of Southampton, Feb 2017
Oregon State University, December 2012	University of Cambridge, Feb 2017
University of Oregon, December 2012	SUNY Buffalo, March 2017
Duke University, February 2013	ISMSC 2018, Quebec City, June 2018
University of North Carolina, February 2013	University of South Florida, Mar 2019
University of South Carolina, February 2013	Telluride Science Research Conference, "Aqueous Supramolecular Chemistry", Aug 2019
Princeton University, February 2013	University of Victoria, Sep 2019
Georgetown University, February 2013	CSULA, May 2020
University of Maryland, February 2013	UC Riverside Biochemistry Symposium series, May 2020
University of California, Davis, February 2013	PacifiChem 2021, Honolulu, HI, Dec 2021
University of Massachusetts, Amherst, March 2013	Calix 2022, New Orleans, LA, July 2022
Dartmouth University, March 2013	ISMSC 2022, Eugene, OR, June 2022
University of San Diego, March 2013	Bozeman Water Conference, July 2022
University of Texas, Austin, April 2013	
Denver University, May 2013 (Invited as the Marsico Lecturer)	

Synergistic Activities

Reviewer: Nature Chemistry, Nature Reviews Chemistry, Nature Communications, Angewandte Chemie, Journal of the American Chemical Society, Chemical Science, Accounts of Chemical Research, Chemical Society Reviews, Chemical Reviews, ACS Nano, ACS Catalysis, ACS Sensors, Journal of Organic Chemistry, Biochemistry, Inorganic Chemistry, Langmuir, Organic Letters, Analytical Chemistry, Organometallics, Journal of Physical Chemistry, , Biopolymers, Bioconjugate Chemistry, Journal of Chemical Education, Chemical Communications, Dalton Transactions, Organic and Biomolecular Chemistry, Biomacromolecules, Bioorganic & Medicinal Chemistry, Supramolecular Chemistry, Chemistry - A European Journal, Chemistry - An Asian Journal, ChemPlusChem, Advanced Science, ChemSelect, The Chemical Record, European Journal of Organic Chemistry, European Journal of Inorganic Chemistry, Israel Journal of Chemistry, CommsBio.

Panelist: NSF CHE MSN CAREER Panel, 2012, 2013, NSF CHE MSN Panel 2015, 2016, 2018, 2019, 2021, 2022; NSF CBET Panel 2016; NSF CCI Panel 2022, NIH SBCA panel (Ad Hoc member) 2016, Hellman Foundation 2015, 2017.

Reviewer: American Chemical Society PRF 2011, 2012, 2014, 2015, 2016, 2018; NSF CHE Division, 2013, 2014, 2016, 2018, 2019, 2020; NSF CCI program 2017, 2021, 2022; Department of Energy BES 2018, 2020-2022, Cottrell Scholar's Program 2018, 2019, 2021 Det Frie Forskningsråd 2014, Swiss National Science Foundation 2018, Israel Science Foundation 2019, Agence Recherche France 2020.

Advising mentor: Maximizing Access To Research Careers (MARC U*), California Alliance for Minority Participation (CAMP), UC Leadership Excellence through Advanced Degrees (UC-LEADS), Mentoring Summer Research Internship Program (MSRIP) programs, UC Riverside.

Graduate Students and Postdoctoral Scholars Advised (B: Black, F: Female, H: Hispanic)

Current Graduate Students: Briana Hickey^F, Bryce Da Camara, Connor Woods, Noa Bar Ziv^F, Yu-Chen Ryan Wu, Jose Moreno^H.

Previous Graduate Students (attained Ph.D.): Katherine Djernes^F, Ana Gamboa^{F,H}, Amber Johnson^F, Michael Young, Melissa Padilla Moehlig^{F,H}, Yoo-Jin Ghang^F, Magi Mettry^{B,F}, Lauren Holloway^F, Lizeth Perez^{F,H}, Paul Bogie, Tabitha Miller^F, Courtney Ngai^F.

Previous Graduate Students (attained M.S.): Calvin Wiley, Jared Trisciuzzi, Adam Gill, Phillip Dietz.

Previous Postdoctoral Scholars: Puhong Liao.

Current Undergraduate Researchers: Alexie Raz^F; Gabriela Mota Orozco^{F,H}, Naira Farooqi^{F,B}.

Previous Undergraduate Researchers: Kelsi McCoy^F, Hannah Hughes^F, Brian Langloss, Orly Moshe^F, Cindy Tawfik^{B,F} (MARC U* Scholar), Donald Richards^B (MARC U* Scholar), Magi Mettry^{B,F}, Kristianna Wi,^F Adam Gill, Erica Liew^F (UCR Honors Program), Noora Siddiqui^{F,B}, Mi La^F, Jessica Arguelles (MARC U* Scholar),^{F,H} Linhui Li^F (MARC U* Scholar), Wendy Carabajal^{F,H}, Hannah McGarraugh^F, Manolia Ghoul^{F,B}, Phoebe Nye^F (UCR Honors Program), Samantha Byers^F, Julie Tobar-Sosa^{F,H}, Rachel Whitmore^F (RISE Scholar), James Pagett, Eric Moffitt, Daphne Kim^F, Divine Grewal^F (UCR Honors Program Chancellor's Research Fellow), Susie Kang^F.

Peer-Reviewed Publications (Bold = Undergraduate Coauthor)

Independent Career

96) Chen, J.; Hooley, R.J.; Zhong, W. "Applications of Synthetic Receptors in Bioanalysis and Drug Transport" *Bioconj. Chem.* **2022**, DOI: [10.1021/acs.bioconjchem.2c00096](https://doi.org/10.1021/acs.bioconjchem.2c00096)

95) Zhong, W.; Hooley, R.J. "Combining Excellent Selectivity with Broad Target Scope: Biosensing with Arrayed Deep Cavitand Hosts" *Acc. Chem. Res.* **2022**, *55*, 1035–1046.

94) Ngai, C.; Wu, H.-T.; da Camara, B.; Williams, C. G.; Mueller, L. J.; Julian, R. R.; Hooley, R. J. "Moderated Basicity of Endohedral Amine Groups in an Octa-Cationic Self-Assembled Cage" *Angew. Chem. Int. Ed.* **2022**, *61*, e202117011.

93) Holmes, J. B.; Liu, V.; Caulkins, B. G.; Hilario, E.; Ghosh, R. K.; Drago, V. N.; Young, R. P.; Romero, J.; Gill, A. D.; Bogie, P. M.; Paulino, P.; Wang, X.; Riviere, G.; Bosken, Y. K.; Struppe, J.; Hassan, A.; Guidoulianov, J.; Perrone, B.; Mentink-Vigier, F.; Chang, C. A.; Long, J. R.; Hooley, R.J.; Mueser, T. C.;

- Dunn, M. F.; Mueller, L. J. "Imaging active site chemistry and protonation states: NMR crystallography of the tryptophan synthase α -aminoacrylate intermediate" *Proc. Natl. Acad. Sci., U.S.A.* **2022**, *119*, e2109235119.
- 92) Hickey, B.L.; Chen, J.; Zou, Y.; Gill, A.D.; Zhong, W.; Millar, J.G.; Hooley, R.J. "Enantioselective Sensing of Insect Pheromones in Water" *Chem. Commun.* **2021**, *57*, 13341–13344.
- 91) Ngai, C.; da Camara, B.; Woods, C. Z.; Hooley, R.J. "Size and Shape-Selective Catalysis with a Functionalized Self-Assembled Cage Host" *J. Org. Chem.* **2021**, *86*, 12862–12871.
- 90) Chen, J.; Gill, A.D.; Hickey, B.L.; Gao, Z.; Cui, X.; Hooley, R.J.; Zhong, W. "Machine Learning Aids Classification and Discrimination of Non-canonical DNA Folding Motifs by an Arrayed Host:guest Sensing System" *J. Am. Chem. Soc.* **2021**, *143*, 12791–12799.
- 89) Chen, J.; Hickey, B.L.; Wang, L.; Lee, J.; Gill, A.D.; Favero, A.; Pinalli, R.; Dalcanale, E.; Hooley, R.J.; Zhong, W. "Selective Discrimination and Classification of G-Quadruplex Structures with a Host:Guest Sensing Array" *Nat. Chem.* **2021**, *13*, 488–495.
- 88) Chalek, K. R.; Dong, X.; Tong, F.; Kudla, R. A.; Zhu, L.; Gill, A. D.; Xu, W.; Yang, C.; Hartman, J. D.; Magalhães, A.; Al-Kaysi, R.; Hayward, R.; Hooley, R.J.; Beran, G.J.O.; Bardeen, C.J.; Mueller, L.J. "Bridging Photochemistry and Photomechanics with NMR Crystallography: the Molecular Basis for the Macroscopic Expansion of an Anthracene Ester Nanorod" *Chem. Sci.* **2021**, *12*, 453–463.
- 87) da Camara, B.; Dietz, P.C.; Chalek, K.R.; Mueller, L.J.; Hooley, R.J. "Selective, Cofactor-mediated Catalytic Oxidation of Alkanethiols in a Self-Assembled Cage Host" *Chem. Commun.* **2020**, *56*, 14263–14266.
- 86) Ngai, C.; Sanchez-Marsetti, C. M.; Harman, W.H.; Hooley, R.J. "Supramolecular Catalysis of the oxo-Pictet-Spengler Reaction with an Endohedrally Functionalized Self-Assembled Cage Complex" *Angew. Chem. Int. Ed.* **2020**, *59*, 23505-23509.
- 85) Hooley, R.J. "No, Not That Way, the Other Way: Creating Active Sites in Self-Assembled Host Molecules" *Synlett* **2020**, *31*, 1448–1463.
- 84) Gill, A.D.; Hickey, B.L.; Zhong, W.; Hooley, R.J.* "Selective Sensing of THC and Related Metabolites in Biofluids by Host:Guest Arrays" *Chem. Commun.* **2020**, *56*, 4352 - 4355.
- 83) Hooley, R.J. "Macrocycles for Recognition and Sensing of Histone Modifications" in *Supramolecular Protein Chemistry*, Crowley, P. B. ed., Royal Society of Chemistry, **2020**.
- 82) Lee, J.; Chen, J.; Sarkar, P.; Xue, Min; Hooley, R.J.; Zhong, W. "Monitoring the crosstalk between methylation and phosphorylation on histone peptides with host-assisted capillary electrophoresis" *Anal. Bioanal. Chem.* **2020**, *412*, 6189–6198.
- 81) Mostafavi, S.H.; Mettry, M.; Gill, A.D.; Easley, C.J.; Hooley, R.J.*; Bardeen, C.J.* "Heterogeneous Kinetics of Photoinduced Cross-Linking of Silica Nanoparticles with Surface-Tethered Anthracenes" *Chem. Phys. Lett.* **2020**, *741*, 137059.
- 80) Gill, A.D.; Hickey, B.L.; Wang, S.; Xue, M.; Zhong, W.; Hooley, R.J.* "Sensing of Citrulline Modifications in Histone Peptides by Deep Cavitand Hosts" *Chem. Commun.* **2019**, *55*, 13259–13262.
- 79) Liu, Y.; Gill, A.D.; Duan, Y.; Perez, L.; Hooley, R.J.*; Zhong, W.* "A Supramolecular Sensor Array for Selective Immunoglobulin Deficiency Analysis" *Chem. Commun.* **2019**, *55*, 11563–11566.
- 78) Ngai, C.; Bogie, P.M.; Holloway, L.R.; Dietz, P.C.; Mueller, L.J.; Hooley, R.J. "Cofactor-Mediated Nucleophilic Substitution Catalyzed by a Self-Assembled Holoenzyme Mimic" *J. Org. Chem.* **2019**, *84*,
- 77) Bogie, P.M.; Holloway, L.R.; Ngai, C.; Miller, T.F.; **Grewal, D.K.**; Hooley, R.J. "A Self-Assembled Cage with Endohedral Acid Groups both Catalyzes Substitution Reactions and Controls their Molecularicity" *Chem-Eur. J.* **2019**, *25*, 10232-10238.
- 76) Young, M.C.; Djernes, K.E.; Payton, J.L.; Liu, D.; Hooley, R.J. "Resorcin[4]arenes: A Convenient Scaffold To Study Supramolecular Self-Assembly and Host:Guest Interactions for the Undergraduate Curriculum" *J. Chem. Ed.* **2019**, *96*, 781-785.
- 75) Gill, A.D.; Perez, L.; Salinas, I.N.Q.; Byers, S.R.; Liu, Y.; Hickey, B.L.; Zhong, W.; Hooley, R.J. "Selective Array-based Sensing of Anabolic Steroids in Aqueous Solution by Host:Guest Reporter Complexes" *Chem-Eur. J.* **2019**, *25*, 1740 –1745.

- 74) Liu, Y.; Duan, Y.; Gill, A.D.; Perez, L.; Jiang, Q.; Hooley, R.J.*; Zhong, W.* "Metal-Assisted Selective Recognition of Biothiols by a Synthetic Receptor Array" *Chem. Commun.* **2018**, *54*, 13147 - 13150.
- 73) Liu, Y.; Lee, J.; Perez, L.; Gill, A.D.; Hooley, R.J.*; Zhong, W.* "Selective Sensing of Phosphorylated Peptides and Monitoring Kinase and Phosphatase Activity with a Supramolecular Tandem Assay" *J. Am. Chem. Soc.* **2018**, *140*, 13869–13877.
- 72) Miller, T.F.; Holloway, L.R.; **Nye, P.P.**; Lyon, Y.; Beran, G.J.O.; Harman, W.H.; Julian, R.R.; Hooley, R.J. "Small Structural Variations have Large Effects on the Assembly Properties and Spin State of Room Temperature High Spin Fe(II) Iminopyridine Cages" *Inorg. Chem.* **2018**, *57*, 13386–13396.
- 71) Bogie, P.M.; Miller, T.F.; Hooley, R.J. "Synthesis and Applications of Endohedrally Functionalized Metal-Ligand Cage Complexes" *Isr. J. Chem.* **2019**, *59*, 130-139.
- 70) Easley, C.J.; Mettry, M.; Moses, E.M.; Hooley, R.J.*; Bardeen, C.J.* "Boosting the Heavy Atom Effect by Cavitand Encapsulation: Room Temperature Phosphorescence of Pyrene in the Presence of Oxygen" *J. Phys. Chem. A.* **2018**, *122*, 6578-6584.
- 69) Holloway, L.R.; Bogie, P.M.; Lyon, Y.; Ngai, C.; Miller, T.F.; Julian, R.R.; Hooley, R.J. "Tandem Reactivity of a Self-Assembled Cage Catalyst with Endohedral Acid Groups" *J. Am. Chem. Soc.* **2018**, *140*, 8078–8081.
- 68) Bogie, P.M.; Holloway, L.R.; Lyon, Y.; Onishi, N.C.; Beran, G.J.O.; Julian, R.R.; Hooley, R.J. "A Springloaded Metal-Ligand Mesocate Allows Access to Trapped Intermediates of Self-Assembly" *Inorg. Chem.* **2018**, *57*, 4155-4163.
- 67) Hooley, R.J. "Rings and Things: The Magic of Building Self-Assembled Cages and Macrocycles" *Inorg. Chem.* **2018**, *57*, 3497-3499.
- 66) Perez, L.; Mettry, M.; Caulkins, B.G.; Mueller, L.J.; Hooley, R.J. "Lipid Bilayer Environments Control Exchange Kinetics of Deep Cavitand Hosts and Enhance Disfavored Guest Conformations" *Chem. Sci.* **2018**, *9*, 1836 - 1845.
- 65) Lee, J.; Perez, L.; Liu, Y.; Wang, H.; Hooley, R.J.; Zhong, W. "Separation of Methylated Histone Peptides via Host-Assisted Capillary Electrophoresis" *Anal. Chem.* **2018**, *90*, 1181-1188.
- 64) Holloway, L.R.; Bogie, P.M.; Hooley, R.J. "Controlled Self-Sorting in Self-Assembled Cage Complexes" *Dalton Trans.* **2017**, *46*, 14719-14723.
- 63) Liu, Y.; Mettry, M.; Gill, A.D.; Perez, L.; Zhong, W.*; Hooley, R.J.* "Selective Heavy Element Sensing with a Simple Host:Guest Fluorescent Array" *Anal. Chem.* **2017**, *89*, 11113-11121.
- 62) Holloway, L.R.; Bogie, P.M.; Lyon, Y.; Julian, R.R.; Hooley, R.J. "Stereoselective Post-Assembly CH Oxidation of Self-Assembled Metal-Ligand Cage Complexes" *Inorg. Chem.* **2017**, *56*, 11435 - 11442.
- 61) Liu, Y.; Perez, L.; Gill, A.D.; Mettry, M.; Li, L.; Wang, Y.; Hooley, R.J.*; Zhong, W.* "Site-Selective Sensing of Histone Methylation Enzyme Activity via an Arrayed Supramolecular Tandem Assay" *J. Am. Chem. Soc.* **2017**, *139*, 10964-10967.
- 60) Bogie, P.M.; Lyon, Y.; Holloway, L.R.; Julian, R.R.; Hooley, R.J. "Metal-Selective Coordination and Enhanced Fluorescence of a Self-Assembling Ligand Scaffold" *Supramol. Chem.* **2017**, *29*, 936-945.
- 59) Perez, L.; Mettry, M.; Hinman, S.S.; **Byers, S. R.**; McKeating, K.S.; Caulkins, B.G.; Cheng, Q.; Hooley, R.J. "Selective Protein Recognition in Supported Lipid Bilayer Arrays by Tailored, Dual-Mode Deep Cavitand Hosts" *Soft Matter* **2017**, *13*, 3966 - 3974.
- 58) Liu, Y.; Perez, L.; Mettry, M.; Gill, A.D.; **Byers, S. R.**; Easley, C.J.; Bardeen, C.J.; Zhong, W.; Hooley, R.J. "Site Selective Reading of Epigenetic Markers by a Dual-Mode Synthetic Receptor Array" *Chem. Sci.* **2017**, *8*, 3960 - 3970.
- 57) Mettry, M.; Moehlig, M.P.; **Gill, A.D.**; Hooley, R.J. "Alkane Oxidation Catalyzed by a Self-Folded Multi-Iron Complex" *Supramol. Chem.* **2017**, *29*, 120-128.
- 56) Wiley, C.A.; Holloway, L.R.; Miller, T.F.; Lyon, Y.; Julian, R.R.; Hooley, R.J. "Electronic Effects on Narcissistic Self-Sorting in Multicomponent Self-Assembly of Fe-Iminopyridine *meso*-Helicates" *Inorg. Chem.* **2016**, *55*, 9805–9815.

- 55) Liu, Y.; Perez, L.; Mettry, M.; Easley, C.J.; Hooley, R.J.; Zhong, W. "Self-Aggregating Deep Cavitand Acts as a Fluorescence Displacement Sensor for Lysine Methylation" *J. Am. Chem. Soc.* **2016**, *138*, 10746–10749.
- 54) Mettry, M.; Hooley, R.J. "Receptors Based on Van der Waals' Forces" in *Comprehensive Supramolecular Chemistry II*, Atwood, J.L., Gokel, G.W., ed., Elsevier, **2016**. <http://dx.doi.org/10.1016/B978-0-12-409547-2.12479-5>
- 53) Johnson, A. M.; Hooley, R.J. "Endohedral Functionalization of Coordination Cages" in *Self-Assembled Rings and Cages*, Clever, G.H. ed., Wiley, **2016**.
- 52) Holloway, L.R.; **McGarraugh, H.H.**; Young, M.C.; Sontising, W.; Beran, G.J.O.; Hooley, R.J. "Structural Switching in Self-Assembled Metal-Ligand Helicate Complexes via Ligand-Centered Reactions" *Chem. Sci.* **2016**, *7*, 4423-4427.
- 51) Hooley, R.J. "Taking on the Turnover Challenge" *Nat. Chem.* **2016**, *8*, 202-204.
- 50) Zhang, C.; Brown, M.Q.; van de Ven, W.; Zhang, Z.-M.; Wu, B.; Young, M.C.; Synek, L.; Borchardt, D.; Harrison, R.; Pan, S.; Luo, N.; Huang, Y.M.; Ghang, Y.-J.; Ung, N.; Li, R.; Isley, J.; Morikis, D.; Song, J.; Guo, W.; Hooley, R.J.; Chang, C.A.; Yang, Z.; Zarsky, V.; Muday, G.K.; Hicks, G.R.; Raikhel, N.V. "Endosidin2 targets conserved EXO70 to inhibit exocytosis" *Proc. Natl. Acad. Sci., U.S.A.* **2016**, *113*, E41-E50.
- 49) Perez, L.; Ghang, Y.-J.; Williams, P.B.; Wang, Y.; Cheng, Q.; Hooley, R. J. "Cell and Protein Recognition at a Supported Bilayer Interface via In Situ Cavitand-Mediated Functional Polymer Growth" *Langmuir* **2015**, *31*, 11152–11157.
- 48) Holloway, L.R.; Young, M.C.; Beran, G.J.O.; Hooley, R.J. "High Fidelity Sorting of Remarkably Similar Components via Metal-Mediated Assembly" *Chem. Sci.* **2015**, *6*, 4801-4806.
- 47) Mettry, M.; Moehlig, M.P.; Hooley, R.J. "Synthesis, Guest Binding and Metal Coordination of Functionalized Self-folding Deep Cavitands" *Org. Lett.* **2015**, *17*, 1497-1500.
- 46) Johnson, A.M.; Wiley, C.A.; Young, M.C.; Zhang, X.; Lyon, Y.; Julian, R.R.; Hooley, R.J. "Narcissistic Self-Sorting in Self-Assembled Rare Earth Metal-Ligand Cages" *Angew. Chem. Int. Ed.* **2015**, *54*, 5641-5645.
- 45) Ghang, Y.-J.; Perez, L.; Morgan, M. A.; Si, F.; Hamdy, O. M.; Beecher, C. N.; Larive, C. K.; Julian, R. R.; Zhong, W.; Cheng, Q.; Hooley, R. J. "Anionic Deep Cavitands Enable the Adhesion of Unmodified Proteins at a Membrane Bilayer" *Soft Matter* **2014**, *10*, 9651-9656.
- 44) Ghang, Y.-J.; **Lloyd, J.J.**; Moehlig, M.P.; **Arguelles, J.K.**; Mettry, M.; Zhang, X.; Julian, R.R.; Cheng, Q.; Hooley, R.J. "Labeled Protein Recognition at a Membrane Bilayer Interface by Embedded Synthetic Receptors" *Langmuir* **2014**, *30*, 10161-10166.
- 43) Young, M.C.; Holloway, L.R.; Johnson, A.M.; Hooley, R.J. "A Supramolecular Sorting Hat: Stereocontrol in Metal-Ligand Self-Assembly by Complementary Hydrogen Bonding" *Angew. Chem. Int. Ed.* **2014**, *53*, 9832-9836.
- 42) Hooley, R.J.; Gavette, J.V.; Mettry M.; Ajami, D.; Rebek, J., Jr. "Unusual Orientation And Reactivity of Alkyl Halides in Water-Soluble Cavitands" *Chem. Sci.* **2014**, *5*, 4382-4387.
- 41) Young, M.C.; **Liew, E.**; Hooley, R.J. "Colorimetric Barbiturate Sensing with Hybrid Spin Crossover Assemblies" *Chem. Commun.* **2014**, *50*, 5043 - 5045.
- 40) Young, M.C.; Johnson, A.M.; Hooley, R.J. "Self-Promoted Post-Synthetic Modification of Metal-Ligand M_2L_3 Mesocates" *Chem. Commun.* **2014**, *50*, 1378 - 1380.
- 39) Li, V.; Ghang, Y.-J.; Hooley, R.J.; Williams T.J. "Non-Covalent Self Assembly Controls the Relaxivity of Magnetically Active Guests" *Chem. Commun.* **2014**, *50*, 1375 - 1377.
- 38) Johnson, A.M.; Young, M.C.; Zhang, X.; Julian, R.R.; Hooley, R.J. "Cooperative Thermodynamic Control of Selectivity in the Self-Assembly of Rare Earth Metal-Ligand Helices" *J. Am. Chem. Soc.* **2013**, *135*, 17723–17726.
- 37) Hong, J.; Djernes, K.E.; Lee, I.; Hooley, R.J.; Zaera, F. "Heterogeneous Catalyst for the Selective Oxidation of Unactivated Hydrocarbons Based on a Tethered Metal-Coordinated Cavitand" *ACS Catal.* **2013**, *3*, 2154–2157.

- 36) Young, M.C.; **Liew, E.**; Ashby, J.; **McCoy, K.M.**; Hooley, R.J. "Spin State Modulation of Iron Spin Crossover Complexes Via Hydrogen-Bonding Self-Assembly" *Chem. Commun.* **2013**, *49*, 6331-6333.
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