

Raymond Blackwell

IDEA FELLOW, STONY BROOK UNIVERSITY

Education

2016-2021

University of California, Berkeley
PhD Chemistry

Dissertation: "Exploration of Magnetic Edge and Dopant States in Nanographenes"

2012-2016

University of North Carolina, Chapel Hill
BS Chemistry; Polymer Chemistry

Honors and Awards

May 2012

Honors Carolina

2013-2016

Dean's List

2014-2016

Ronald E. McNair Post-Graduate Achievement Scholar

2015

UNC Academic Research Conference Sigma Xi Travel Award

2015

Carolina Research Scholar

2016

Honors Carolina Laureate

2017-2021

National Science Foundation Graduate Research Fellowship

Teaching Experience

2023

Simons STEM Scholars Physics Workshop Stony Brook, NY

2018-2021

Pre-Engineering Program Chemistry Workshop Berkeley, CA

2016-2018

Organic Chemistry for Non-Chemistry Majors Berkeley, CA

2015

Carolina Students Taking Academic Responsibility through Teaching, Chapel Hill, NC

Publications

1. McCurdy, R.D.; Delgado, A.; Jiang, J.; Zhu, J.; Wen, E.C.H.; **Blackwell, R.E.**; Veber, G.C.; Wang, S.; Louie, S.G.; Fischer, F.R. *J. Am. Chem. Soc.* 145, 28, 15162-15170 **2023**
2. Zhao, H.; **Blackwell, R.E.**; Thinel, M.; Handa, T.; Ishida, S.; Zhu, X.; Iyo, A.; Eisaki, H.; Pasupahty, A.N.; Fujita, K. *Nature* 618, 940-945 **2023**
3. **Blackwell, R.E.***; Zhao, F.*; Brooks, E.; Zhu, J.; Piskun, I.; Wang, S.; Delgado, A.; Lee, Y.L.; Louie, S.G.; Fischer, F.R. *Nature*, 600, 647-650 **2021**
4. Wang, S.; Zhu, J.; **Blackwell, R.E.**; Fischer, F.R. *J. Phys. Chem. A*. 125, 1384-1390 **2021**
5. Mutlu, Z.; Llians, J.P.; Jacobse, P.H.; Piskun, I.; **Blackwell, R.E.**; Crommie, M.F.; Fischer, F.R.; Bokor, J. *ACS Nano* 15, 2635-2642 **2021**
6. Piskun, I.*; **Blackwell, R.E.***; Jorner-Somoza, J.; Zhao, F.; Rubio, A.; Louie, S.G.; Fischer, F.R. *J. Am. Chem. Soc.*, 142, 3696-3700 **2020**
7. Durr, R.A.*; Haberer, D.*; Lee, Y.L.*; **Blackwell, R.E.**; Kalayjian, A.M.; Marangoni, T.; Ilhm, J.; Louie, S.G.; Fischer, F.R. *J. Am. Chem. Soc.* 140, 2, 807-813, **2018**
8. Tolstova, Y.; Omelchenko, S.E.; **Blackwell, R.E.**; Ding, S.A.; Atwater, H.A. *Solar Energy Materials and Solar Cells*, 160, 340-345, **2017**
9. Carducci, T.M., **Blackwell, R.E.**; Murray, R.W. *J. Phys. Chem. Lett.* 6, 1299-1302, **2015**
10. Carducci, T.M., **Blackwell, R.E.**; Murray, R.W. *J. Am. Chem. Soc.* 136, 1182-1187 **2014**

Patents

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| 2023 | Wang, S.; Zhu, J.; Blackwell, R.E. ; Fischer, F.R. "Systems and Methods for Automated Tip Conditioning for Scanning Tunneling Spectroscopy" 18/084, 300 |
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Presentations and invited lectures

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| 2023 | "Inhomogeneous local electronic structure in overdoped graphene" R.E. Blackwell , Z. Du; A. Kundu; T. Okugawa; Z. Wu; I. Drozdov; D. Kennes; K. Fujita; A.N. Pasupahty 2023 APS March Meeting |
| 2021 | "Engineering Magnetic Edge States in Zigzag Graphene Nanoribbons" R.E. Blackwell , F. Zhao, E. Brooks, J. Zhu, I. Piskun, S. Wang, A. Delgado, Y. -L. Lee, S.G. Louie, F.R. Fischer. 2021 APS March Meeting |
| 2020 | "Covalent C-N Bond Formation Through a Surface Catalyzed Thermal Cyclodehydrogenation" R.E. Blackwell , I. Piskun, J. Jorner-Somoza, F. Zhao, A. Rubio, S.G. Louie, F.R. Fischer. 2020 APS March Meeting |

2015 "Zn(O,S) window layers on Cu₂O devices" **R.E. Blackwell**, Y. Tolstova, S.E. Omelchenko, H.A. Atwater. 2015 American Biomedical Research Conference for Minority Students

2015 "Electron Exchange in Ferrocenated Gold Nanoparticles." **R.E. Blackwell**, T.M. Carducci, R.W. Murray. 2015 Yale Bouchet Conference on Diversity and Graduate Education

Professional training

2022 **Unconventional Superconductivity Summer School**, Institut d'Etudes Scientifiques de Cargese, Cargese, Corsica

2021-2023 **Postdoctoral Researcher**, Brookhaven National Laboratory, Upton, NY

Professional affiliations

2020- **Member of the American Physical Society**

2020- **Member of the National Society of Black Physicists**

Professional service

2024 **Interviewer for Simons STEM Scholars Selection Weekend**

2023 **Search Committee Member for Simons STEM Scholars Assistant Director**

2023 **Member of Stony Brook University Diversity Task Force**

2019-2021 **Social and Fiance Co-Chair for Black Graduate Engineering and Science Students at UC-Berkeley**

2019-202 **GOLD Scholars High School Mentor**

Languages

English Native language

Spanish Intermediate Listener, Novice Speaker, Advanced Reading and Writing