Gordana Dukovic, PhD

Professor of Chemistry · Materials Science and Engineering · Renewable and Sustainable Energy Institute
Department of Chemistry, University of Colorado Boulder, 215 UCB, Boulder, CO 80309, USA
+1 (303) 735-5297 · Gordana.Dukovic@colorado.edu *Current as of October 2026*

EDUCATION

2006	**Ph.D., Physical Chemistry, with Distinction**, Columbia University *Dissertation: "Electronic spectra of carbon nanotubes: excitonic states, chemical doping, and chiral interactions."*
2001	**B.A., Chemistry**, minor in Italian, Douglass College, Rutgers University. Valedictorian, *summa cum laude*

APPOINTMENTS

2025–	**Faculty Director**, CU Facility for Electron Microscopy of Materials, University of Colorado Boulder
2021–	**Professor of Chemistry**, Department of Chemistry; Renewable and Sustainable Energy Institute; Materials Science and Engineering, University of Colorado Boulder
2021–2026	**Associate Director**, Renewable and Sustainable Energy Institute (RASEI), University of Colorado Boulder
2024	**Visiting Professor**, École Polytechnique Fédérale de Lausanne (EPFL), Sion, Switzerland
2016	**Visiting Professor**, Claude Bernard University, Lyon, France
2016–2021	**Associate Professor of Chemistry**, University of Colorado Boulder
2009–2016	**Assistant Professor of Chemistry**, University of Colorado Boulder
2006–2009	**Postdoctoral Scholar**, University of California, Berkeley and Lawrence Berkeley National Laboratory

HONORS AND AWARDS

2024	**National Brown Investigator Award**, Brown Institute for Basic Sciences
2023	**Guggenheim Fellowship**, John Simon Guggenheim Memorial Foundation
2023	**College Scholar Award**, University of Colorado Boulder
2022	**Finalist, Blavatnik National Award for Young Scientists,** Blavatnik Family Foundation
2017	**Faculty Fellow**, Research and Innovation Office, University of Colorado Boulder
2016	**Fellow**, Renewable and Sustainable Energy Institute
2015	**Provost's Faculty Achievement Award**, University of Colorado Boulder
2014	**Alfred P. Sloan Research Fellowship**, Alfred P. Sloan Foundation
2013	**Beckman Young Investigator Award**, Arnold and Mabel Beckman Foundation
2013	**Cottrell Scholar Award**, Research Corporation for Science Advancement
2012	**NSF CAREER Award**
2012	**Scialog Collaborative Innovation Award** (with Sean Elliott, Boston University)
2012	**Fellow**, Materials Science and Engineering Program, University of Colorado Boulder
2011	**ACS Petroleum Research Fund Doctoral New Investigator Award**
2010	**Affiliate**, Renewable and Sustainable Energy Institute
2006	**Hammett Award for excellence in studies and research toward the Ph.D.**, Columbia University
2003	**Jack Miller Award for excellence in teaching**, Columbia University
2002	**Edith and Eugene Blout Scholarship**, Columbia University

RESEARCH FUNDING

Total external funding to the Dukovic group: $11.8M, of which $9.1M as principal investigator. *Amounts are the share awarded to the Dukovic group; where the award was shared, the total is given beneath.*

Current

PERIOD	ROLE	PROJECT AND SPONSOR	AMOUNT
2024–2029	**PI**	Interfacing nanostructures and biomolecules: structural characterization by cryo-electron microscopy *Brown Institute for Basic Sciences (Brown Investigator Award)*	$2,000,000
2023–2027	**PI**	Probing enzymatic catalysis of carbon–carbon bond formation with photoexcited semiconductor nanocrystals *U.S. Department of Energy*	$649,999
2022–2027	Co-PI	Mechanism of photochemical N_2 reduction (PI: P. King, NREL) *DOE Basic Energy Sciences*	$677,500
2022–2027	Co-PI	Energy Frontier Research Center: Ensembles of Photosynthetic Nanoreactors (PI: S. Ardo, UC Irvine) *DOE Basic Energy Sciences*	$625,000
2022–2026	**PI**	Controlling trapped-hole diffusion in semiconductor nanocrystals (co-PI: J. Eaves) *Air Force Office of Scientific Research*	$411,538 of $612,847
2026–2031	Core Faculty	NSF Center for Integration of Modern Optoelectronic Materials on Demand (IMOD)**, renewal** *National Science Foundation (amount shown for 2026–27; set annually)*	$120,000
2018–2027	Faculty	Science and Technology Center on Real-Time Functional Imaging (STROBE) *National Science Foundation; CHECRA matching funds*	$363,875

Completed

PERIOD	ROLE	PROJECT AND SPONSOR	AMOUNT
2024–2026	Core Faculty	NSF Center for Integration of Modern Optoelectronic Materials on Demand (IMOD) *National Science Foundation; CHECRA supplement*	$242,500
2022–2026	**PI**	CAS: Elucidating how nanocrystal structure controls electron flow in nanocrystal–enzyme complexes *National Science Foundation*	$499,660
2022–2024	**PI**	Probing novel III–V nanocrystals at the single-particle and ensemble levels *NSF Center IMOD; CHECRA supplement*	$140,000
2021–2024	**PI**	MRI: Acquisition of a direct-detection electron energy-loss spectrometer for fast, low-dose, high-resolution spectroscopic imaging (with 4 co-PIs) *National Science Foundation*	$995,799
2021–2022	**PI**	Light-driven catalysis: mechanistic insights into quantum dot–enzyme hybrid systems *Research Corporation for Science Advancement*	$75,000
2019–2022	**PI**	Trapped-hole diffusion in semiconductor nanocrystals and its impact on oxidation photochemistry (co-PI: J. Eaves) *Air Force Office of Scientific Research*	$386,283 of $579,424

PERIOD	ROLE	PROJECT AND SPONSOR	AMOUNT
2017–2022	Co-PI	Mechanism of photochemical N_2 reduction (PI: P. King, NREL) *DOE Basic Energy Sciences*	$505,000
2017–2021	**PI**	Control of charge transfer and light-driven reactions in nanocrystal–enzyme complexes *DOE Basic Energy Sciences*	$648,000
2017–2018	Co-PI	Chemistry Early Career Investigator Workshop (PI: M. Whited, Carleton College) *National Science Foundation*	$70,498
2016–2017	**PI**	DURIP: Ultrafast laser equipment for investigation of excited-state dynamics in semiconductor nanocrystals *Department of Defense*	$149,890
2015–2018	**PI**	Excited states, electronic coupling, and charge transfer properties of chalcogenide-capped semiconductor nanocrystals *Air Force Office of Scientific Research*	$420,000
2014–2018	**PI**	Alfred P. Sloan Research Fellowship *Alfred P. Sloan Foundation*	$50,000
2013–2018	**PI**	Beckman Young Investigator Award: Novel compositionally complex nanoscale materials with targeted optical and chemical properties *Arnold and Mabel Beckman Foundation*	$750,000
2013–2017	**PI**	Semiconductor nanocrystals as light harvesters for biomimetic solar fuel generation *DOE Basic Energy Sciences*	$727,000
2013–2017	**PI**	Cottrell Scholar Award: Compositionally complex nanoscale materials for solar fuel generation and integration of solar energy research into the physical chemistry curriculum *Research Corporation for Science Advancement*	$75,000
2013–2014	Co-PI	Scialog Collaborative Innovation Award: Photo-induced CO_2 reduction using reverse TCA cycle enzymes (with S. Elliott, Boston University) *Research Corporation for Science Advancement*	$50,000 of $100,000
2012–2018	**PI**	CAREER: Research and education for a solar future: fundamentals of nanocrystal photochemistry *National Science Foundation*	$630,125
2012–2015	**PI**	Photophysics and photochemistry of nanocrystals functionalized with ultrashort ligands *Air Force Office of Scientific Research*	$261,000
2012–2015	**PI**	Doctoral New Investigator Award: Hybrid inorganic–organic nanoscale arrays: structural control and mechanisms *ACS Petroleum Research Fund*	$100,000
2011–2013	Subaward	Photomaterials for photoelectrochemical water splitting *National Renewable Energy Laboratory*	$124,583
2011–2013	**PI**	Band-structure guided photochemical reactivity of semiconductor nanocrystals *CU Boulder Innovative Seed Grant Program*	$44,000
2010–2012	Co-PI	Hybrid molecule–semiconductor nanostructures for solar water splitting (with N. Damrauer) *Renewable and Sustainable Energy Institute*	$20,000 of $40,000

PERIOD	ROLE	PROJECT AND SPONSOR	AMOUNT
2010–2011	**PI**	Synthesis of nanoscale oxy(nitrides) for solar water splitting *Center for Revolutionary Solar Photoconversion*	$100,000

PUBLICATIONS

** corresponding author*

Independent career, University of Colorado Boulder (2009–present)

84. H. K. Feinsilber, L. M. Pellows, P. J. Dahl, J. W. Peters, D. W. Mulder, P. W. King, **G. Dukovic**, L. C. Seefeldt*. “Electrochemical characterization of photo-driven hole-scavenging by cadmium sulfide quantum dot–nitrogenase biohybrid complexes.” *Bioelectrochemistry*, **2026**, *171*, 109329. https://doi.org/10.1016/j.bioelechem.2026.109329

83. **G. Dukovic**. “Louis E. Brus (1943–2026).” *Nat. Nanotechnol.*, **2026**. https://doi.org/10.1038/s41565-026-02157-6

82. R. Sharma, F. Mus, L. M. Pellows, P. J. Dahl, D. W. Mulder, Z.-Y. Yang, P. W. King, **G. Dukovic**, L. C. Seefeldt, J. W. Peters*. “Mechanistic Insights into Dinitrogen Reduction to Ammonia in Light-Controlled Nanocrystal:Nitrogenase Complexes.” *Acc. Chem. Res.*, **2026**, 59, 1609–1620. https://doi.org/10.1021/acs.accounts.5c00763

81. J. Kline, S. Kar, B. F. Hammel, Y. Huang, Z. Huang, S. R. Marder, S. Yazdi, **G. Dukovic**, G. Wenger, H. Snaith, D. S. Ginger*. “Trion Formation Hampers Single Quantum Dot Performance in Silane-Coated $FAPbBr_3$ Quantum Dots.” *Nano Lett.*, **2026**, 26, 4855–4865. https://doi.org/10.1021/acs.nanolett.6c00643

80. B. F. Hammel, Z. Zhou, J. C. Ondry, D. V. Talapin, S. Yazdi, **G. Dukovic***. “Structural and Compositional Evolution of Colloidal $In_{1-x}GaxP_{1-y}As_y$ Nanocrystals during Cation Exchange Revealed by Electron Microscopy.” *ACS Nano*, **2026**, 20, 7, 5506–5517. https://doi.org/10.1021/acsnano.5c15614

79. S. Gallagher, J. Kline, Y. Huang, D. M. Ladd, B. F. Hammel, I. Lyons, J. N. Pryor, S. Yazdi, **G. Dukovic**, M. F. Toney, S. R. Marder, D. S. Ginger*. “Influence of Ligand Exchange on Single Particle Properties of Cesium Lead Bromide Quantum Dots.” *Chem. Mater.* **2026**, 38, 3, 1074–1083. https://doi.org/10.1021/acs.chemmater.5c02233

78. S. M. Click, M. R. Jilek, O. F. Bird, N. Prugh, F. A. Flinkingshelt, Y. M. L. Lamb, J. Y. Young, K. A. Miller, **G. Dukovic***. “Exceptionally long-lived charge-separated states in CdS nanocrystals with a covalently bound phenothiazine derivative.” *Chem*, **2025**, 102760. https://doi.org/10.1016/j.chempr.2025.102760

77. M. Fabbiano, O. S. Lecina, H. J. Jöbsis, T. Deshpande, S. J. Sherman, **G. Dukovic**, S. Feldmann, R. Buonsanti*. “c-ALD-Grown Metal Oxide Shell Enables Distance-Independent Triplet Energy Transfer from Quantum Dots to Molecular Dyes.” *J. Am. Chem. Soc.*, **2025**, *147*, 31409–31416. https://doi.org/10.1021/jacs.5c11645

76. P. J. Dahl, L. M. Pellows, Z.-Y. Yang, L. C. Seefeldt, J. W. Peters, **G. Dukovic**, D. W. Mulder, P. W. King*. “Pre-steady-state kinetics of nanocrystal:molybdenum nitrogenase biohybrids reveals hole-scavenging efficiency is critical to N_2 reduction.” *Cell Rep. Phys. Sci.* **2025**, *6*, 102732. https://doi.org/10.1016/j.xcrp.2025.102732

75. L. Chen, **G. Dukovic**, T. D. Krauss. “40 Years of colloidal nanocrystals in JCP.” *J. Chem. Phys.* **2025**, *162*, 210401. https://doi.org/10.1063/5.0280278

74. H. R. Keller, J. K. Utterback, H. Hamby, C. E. Lubner, D. W. Mulder, P. W. King, **G. Dukovic***. “Rate-limiting regimes in photochemical H2 generation by complexes of colloidal CdS nanorods and hydrogenase.” *Chem*, **2025**, 102594. https://doi.org/10.1016/j.chempr.2025.102594

73. D. R. Lustig, F. Chen, W. Zhang, O. F. Bird, J. Fajardo Jr., S. Ardo, S. Hu, **G. Dukovic**, A. A. Talin, R. B. Chandran*, J. B. Sambur*. “Models and Measurements Quantify Photon Recycling, Charge-Carrier Diffusion and Photon Scattering Contributions to Photoluminescence in InP Nanowire Arrays.” *J. Phys. Chem. C*, **2025**, *129*, 8270–8283. https://doi.org/10.1021/acs.jpcc.5c01618

72. D. R. Lustig, E. Buz, O. F. Bird, J. T. Mulvey, P. R. Prasad, J. P. Patterson, **G. Dukovic**, K. R. Kittilstved, J. B. Sambur*. “Single-Molecule Fluorescence Microscopy Reveals Energy Transfer Active versus Inactive Nanocrystal/Dye Conjugate Pairs.” *Chem. Biomed. Imaging*, **2025**. https://doi.org/10.1021/cbmi.5c00009

71. J. Kline, S. Gallagher, B. F. Hammel, R. Mathew, D. M. Ladd, R. J. E. Westbrook, J. N. Pryor, M. F. Toney, M. Pelton, S. Yazdi, **G. Dukovic**, D. S. Ginger*. “Emissive Traps Lead to Asymmetric Photoluminescence Line Shape in Spheroidal $CsPbBr_3$ Quantum Dots.” *Nano Lett.*, **2025**, *25*, 5063–5070. https://doi.org/10.1021/acs.nanolett.4c04995

70. O. F. Bird, K. M. Drbohlav, E. F. Gowdy, F. A. Flinkingshelt, L. M. Pellows, B. F. Hammel, B. W. Layne, S. Ardo, J. Y. Yang, K. A. Miller, **G. Dukovic***. “Revealing the Influence of Binding Motifs on Electron Transfer and Recombination Kinetics for CdSe Quantum Dots Functionalized with a Modified Viologen.” *J. Phys. Chem. C*, **2025**, *129*, 5556–5570. https://doi.org/10.1021/acs.jpcc.5c00740

69. S. J. Sherman, B. Hou, M. J. Coley-O’Rourke, K. E. Shulenberger, L. M. Pellows, E. Rabani, **G. Dukovic***. “Revealing the Phonon Bottleneck Limit in Negatively Charged CdS Quantum Dots.” *ACS Nano*, **2025**, *19*, 7055–7063. https://doi.org/10.1021/acsnano.4c15181

68. F. A. Flinkingshelt, S. M. Click, H. Kwon, J. W. Ziller, T. A. Pham, T. Ogitsu, **G. Dukovic***, J. Y. Yang*. “Synthesis and Characterization of $[Ni(H_2O)(7\text{-}PPh_2NArSO_3)2](NaBF_4)$ for Light-Driven Quantum Dot-Catalyst Hydrogen Evolution.” *Energy & Fuels*, **2025**, *39*, 2196–2202. https://doi.org/10.1021/acs.energyfuels.4c05559

67. M. J. Coley-O'Rourke*, B. Hou, S. J. Sherman, **G. Dukovic**, E. Rabani*. “Intrinsically Slow Cooling of Hot Electrons in CdSe Nanocrystals Compared to CdS.” *Nano Lett.*, **2025**, *25*, 244–250. https://www.doi.org/10.1021/acs.nanolett.4c04912

66. J. C. Ondry, Z. Zhou, K. Lin, A. Gupta, J. H. Chang, H. Wu, A. Jeong, B. F. Hammel, D. Wang, H. C. Fry, S. Yazdi, **G. Dukovic**, R. D. Schaller, E. Rabani, D. V. Talapin*. “Reductive pathways in molten inorganic salts enable colloidal synthesis of III-V semiconductor nanocrystals.” *Science*, **2024**, *386*, 401–407. https://www.doi.org/10.1126/science.ado7088

65. B. P. Jagilinki, M. A. Willis, F. Mus, R. Sharma, L. M. Pellows, D. W. Mulder, Z.-Y. Yang, L. C. Seefeldt, P. W. King, **G. Dukovic**, J. W. Peters*. “Microscale Thermophoresis (MST) as a Tool to Study Binding Interactions of Oxygen-Sensitive Biohybrids.” *Bio-protocol*, **2024**, *14*, e5041. https://doi.org/10.21769/BioProtoc.5041

64. H. A. Nguyen, B. F. Hammel, D. Sharp, J. Kline, G. Schwartz, S. Harvey, E. Nishiwaki, S. F. Sandeno, D. S. Ginger, A. Majumdar, S. Yazdi, **G. Dukovic**, B. M. Cossairt*. “Colossal Core/Shell CdSe/CdS Quantum Dot Emitters.” *ACS Nano*, **2024**, *18*, 20726–20739. https://doi.org/10.1021/acsnano.4c06961

63. S. Gallagher, J. Kline, F. Jahanbakhshi, J. C. Sadighian, I. Lyons, G. Shen, B. F. Hammel, S. Yazdi, **G. Dukovic**, A. M. Rappe, D. S. Ginger*. “Ligand Equilibrium Influences Photoluminescence Blinking in CsPbBr3: A Change Point Analysis of Widefield Imaging Data.” *ACS Nano*, **2024**, *18*, 19208–19219. https://doi.org/10.1021/acsnano.4c04968

62. A. Clinger, Z.-Y. Yang, L. M. Pellows, P. W. King, F. Mus, J. W. Peters, **G. Dukovic**, L. C. Seefeldt*. “Hole-scavenging in photo-driven N_2 reduction catalyzed by a CdS-nitrogenase MoFe protein biohybrid system.” *J. Inorg. Biochem.*, **2024**, *253*, 112484. https://www.sciencedirect.com/science/article/pii/S0162013424000072

61. K. E. Shulenberger, S. J. Sherman, M. R. Jilek, H. R. Keller, L. M. Pellows, **G. Dukovic***. “Exciton and biexciton transient absorption spectra of CdSe quantum dots with varying diameters.” *J. Chem. Phys.*, **2024**, *160*, 014708. https://doi.org/10.1063/5.0179129

60. L. M. Pellows, G. E. Vansuch, B. Chica, Z. Yang, J. L. Ruzicka, M. A. Willis, K. A. Brown, L. C. Seefeldt, J. W. Peters, **G. Dukovic**, D. W. Mulder, P. W. King*. “Low-temperature trapping of N2 reduction reaction intermediates in nitrogenase MoFe protein–CdS quantum dot complexes”. *J. Chem. Phys.*, **2023**, *159,* 235102. https://pubs.aip.org/aip/jcp/article/159/23/235102/2930400

59. L. M. Pellows, M. A. Willis, J. L. Ruzicka, B. P. Jagilinki, D. W. Mulder, Z. Yang, L. C. Seefeldt, P. W. King, **G. Dukovic***, J. W. Peters*. “High affinity electrostatic interactions support the formation of CdS quantum dot:nitrogenase MoFe protein complexes.” *Nano Lett.*, **2023**, *23* (22), 10466–10472. https://doi.org/10.1021/acs.nanolett.3c03205

58. G. E. Vansuch, D. W. Mulder, B. Chica, J. L. Ruzicka, Z.-Y. Yang, L. M. Pellows, M. A. Willis, K. A. Brown, L. C. Seefeldt, J. W. Peters, **G. Dukovic**, P. W. King*. “Cryo-annealing of Photoreduced CdS Quantum Dot–Nitrogenase MoFe Protein Complexes Reveals the Kinetic Stability of the E_4(2N2H) Intermediate.” *J. Am. Chem. Soc.*, **2023**, *145* (39), 21165–21169. https://doi.org/10.1021/jacs.3c06832

57. B. F. Hammel, L. M. G. Hall, L. M. Pellows, O. M. Pearce, P. Tongying, S. Yazdi, **G. Dukovic***. "Relationships between compositional heterogeneity and electronic spectra of $(Ga_{1-x}Zn_x)(N_{1-x}O_x)$ nanocrystals revealed by valence electron energy loss spectroscopy." *J. Phys. Chem. C,* **2023***, 127 (16), 7762–7771.* https://doi.org/10.1021/acs.jpcc.3c00572

56. (Invited Review) K. E. Shulenberger, M. R. Jilek, S. J. Sherman, B. T. Hohman, **G. Dukovic***. "Electronic Structure and Excited State Dynamics of Cadmium Chalcogenide Nanorods." *Chem. Rev.,* **2023***, 123 (7), 3852–3903.* https://doi.org/10.1021/acs.chemrev.2c00676

55. J. L. Ruzicka, L. M. Pellows, H. Kallas, K. E. Shulenberger, O. A. Zadvornyy, B. Chica, K. A. Brown, J. W. Peters, P. W. King, L. C. Seefeldt, **G. Dukovic***. "The Kinetics of Electron Transfer from CdS Nanorods to the MoFe Protein of Nitrogenase." *J. Phys. Chem. C*, **2022**, *126* (19), 8425–8435. https://doi.org/10.1021/acs.jpcc.2c02528

54. B. Chica, J. Ruzicka, L. M. Pellows, H. Kallas, E. Kisgeropoulos, G. E. Vansuch, D. W. Mulder, K. A. Brown, D. Svedruzic, J. W. Peters, **G. Dukovic**, L. C. Seefeldt, P. W. King*. "Dissecting Electronic-Structural Transitions in the Nitrogenase MoFe Protein P-Cluster during Reduction." *J. Am. Chem. Soc.*, **2022**, *144* (13), 5708–5712. https://doi.org/10.1021/jacs.1c13311

53. K. E. Shulenberger, H. R. Keller, L. M. Pellows, N. L. Brown, **G. Dukovic***. "Photocharging of Colloidal CdS Nanocrystals." *J. Phys. Chem. C*, **2021***, 125 (41), 22650–22659*. https://pubs.acs.org/doi/full/10.1021/acs.jpcc.1c06491

52. J. K. Utterback, R. P. Cline, K. E. Shulenberger, J. D. Eaves, **G. Dukovic***. "The Motion of Trapped Holes on Nanocrystal Surfaces." *J. Phys. Chem. Lett.*, **2020**, *11*, 9876−9885. https://pubs.acs.org/doi/10.1021/acs.jpclett.0c02618 *Supplementary journal cover.*

51. O. M. Pearce, J. S. Duncan, B. Lama, **G. Dukovic***, N. H. Damrauer*. "Binding Orientation of a Ruthenium-Based Water Oxidation Catalyst on a CdS QD Surface Revealed by NMR Spectroscopy." *J. Phys. Chem. Lett.*, **2020**, *11*, 9552−9556. https://pubs.acs.org/doi/10.1021/acs.jpclett.0c02639

50. K. A. Brown, J. L. Ruzicka, H. Kallas, B. Chica, D. W. Mulder, J. W. Peters, L. C. Seefeldt, **G. Dukovic**, P. W. King*. "Excitation-Rate Determines Product Stoichiometry in Photochemical Ammonia Production by CdS Quantum Dot-Nitrogenase MoFe Protein Complexes." *ACS Catal.,* **2020**, *10*, 11147–11152. https://pubs.acs.org/doi/10.1021/acscatal.0c02933

49. B. Chica, J. Ruzicka, H. Kallas, D. W. Mulder, K. A. Brown, J. W. Peters, L. C. Seefeldt, **G. Dukovic**, P. W. King*. "Defining Intermediates of Nitrogenase MoFe Protein during N_2 Reduction under Photochemical Electron Delivery from CdS Quantum Dots." *J. Am. Chem. Soc.*, **2020**, *142*, 14324–14330. https://doi.org/10.1021/jacs.0c06343

48. J. K. Utterback, J. L. Ruzicka, H. R. Keller, L. M. Pellows, **G. Dukovic***. "Electron Transfer from Semiconductor Nanocrystals to Redox Enzymes." *Annu. Rev. Phys. Chem.*, **2020**, *71*, 335–359. https://doi.org/10.1146/annurev-physchem-050317-014232

47. T. Labrador, **G. Dukovic***. "Simultaneous Determination of Spectral Signatures and Decay Kinetics of Excited State Species in Semiconductor Nanocrystals Probed by Transient Absorption Spectroscopy." *J. Phys. Chem. C*, **2020**, *124*, 8439–8447. https://doi.org/10.1021/acs.jpcc.0c01701

46. H. Hamby, B. Li, K. E. Shinopoulos, H. R. Keller, S. J. Elliott, **G. Dukovic***. "Light-driven carbon-carbon bond formation via CO_2 reduction catalyzed by complexes of CdS nanorods and a 2-oxoacid oxidoreductase." *Proc. Natl. Acad. Sci. U.S.A.*, **2020**, *117*, 135–140. https://doi.org/10.1073/pnas.1903948116

45. J. K. Utterback, J. L. Ruzicka, H. Hamby, J. D. Eaves, **G. Dukovic***. "Temperature-Dependent Transient Absorption Spectroscopy Elucidates Trapped-Hole Dynamics in CdS and CdSe Nanorods." *J. Phys. Chem. Lett.*, **2019**, *10*, 2782−2787. https://pubs.acs.org/doi/10.1021/acs.jpclett.9b00764

44. J. K. Utterback*, M. B. Wilker, D. W. Mulder, P. W. King, J. D. Eaves, **G. Dukovic***. "Quantum Efficiency of Charge Transfer Competing against Nonexponential Processes: The Case of Electron Transfer from CdS Nanorods to Hydrogenase." *J. Phys. Chem. C*, **2019**, *123*, 886–896. https://pubs.acs.org/doi/10.1021/acs.jpcc.8b09916

43. O. M. Pearce, J. S. Duncan, N. H. Damrauer*, **G. Dukovic***. "Ultrafast Hole Transfer from CdS Quantum Dots to a Water Oxidation Catalyst." *J. Phys. Chem. C*, **2018**, *122*, 30, 17559–17565. https://pubs.acs.org/doi/10.1021/acs.jpcc.8b06237

42. J. K. Utterback, H. Hamby, O. M. Pearce, J. D. Eaves, **G. Dukovic***. "Trapped-Hole Diffusion in Photoexcited CdSe Nanorods." *J. Phys. Chem. C*, **2018**, *122,* 16974–16982. https://pubs.acs.org/doi/10.1021/acs.jpcc.8b05031

41. R. P. Cline, J. K. Utterback, S. E. Strong, **G. Dukovic**, J. D. Eaves*. "On the Nature of Trapped-Hole States in CdS Nanocrystals and the Mechanism of Their Diffusion." *J. Phys. Chem. Lett.*, **2018**, *9*, 3532–3537. https://pubs.acs.org/doi/10.1021/acs.jpclett.8b01148

40. K. J. Schnitzenbaumer, **G. Dukovic***. "Comparison of phonon damping behavior in quantum dots capped with organic and inorganic ligands." *Nano Lett.*, **2018**, *18*, 3667–3674. https://pubs.acs.org/doi/10.1021/acs.nanolett.8b00800

39. J. C. Beimborn II, L. M. G. Hall, P. Tongying, **G. Dukovic**, J. M. Weber*. "Pressure Response of Photoluminescence in Cesium Lead Iodide Perovskite Nanocrystals." *J. Phys. Chem. C*, **2018**, *122*, 11024–11030. https://pubs.acs.org/doi/10.1021/acs.jpcc.8b03280

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