

DANIEL R. GAMELIN

*Nicole A. Boand Endowed Chair Professor of Chemistry
Director, UW Molecular Engineering Materials Center*

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EDUCATION AND PROFESSIONAL EXPERIENCE

University of Washington

Assistant → Associate → Full Professor

Nicole A. Boand Endowed Chair

Director, UW Molecular Engineering Materials Center (NSF MRSEC)

Harry and Catherine Jayne Boand Endowed Professor

Synthesis and physical properties of semiconductor nanostructures

BlueDot Photonics, Inc.

Co-Founder and Chief Scientific Advisor

Solar spectral shaping for high-efficiency photovoltaics

University of Bern

Postdoctoral Research Fellow (w/Prof. H. U. Güdel)

Photophysics of luminescent solid-state inorganic materials

Stanford University

Doctor of Philosophy (w/Prof. E. I. Solomon)

*Electronic structure studies of transition-metal dimers relevant to
biological electron transfer and catalysis*

Max-Planck-Institut für Strahlenchemie

Predocutorial Research Fellow (w/Profs. F.-W. Grevels, K. Schaffner)

Time-resolved IR and Raman spectroscopies of excited states

Reed College

Bachelor of Arts in Chemistry (Thesis advisor: Prof. D. P. Gerrity)

Resonance Raman studies of group VI transition-metal hexacarbonyls

Brandeis University

NSF-REU (Research advisor: Prof. I.-Y. Chan)

*Luminescence of organic molecules in high-pressure diamond anvil
cells*

Seattle, WA
3/00→9/06→9/08
9/17–present
9/17–present
9/08–9/17

Seattle, WA
2/19–2/25

Bern, Switzerland
10/97–2/00

Stanford, CA
1998

Mülheim, Germany
8/90–7/91

Portland, OR
1990

Waltham, MA
1989

VISITING POSITIONS

Universidad de Cantabria

Invited Visiting Professor (w/Prof. Rafael Valiente)

High-pressure spectroscopy of layered magnets

Debye Institute for Nanomaterials Science, Utrecht University

Invited Visiting Professor (w/Prof. A. Meijerink)

Nanocrystal spectroscopies

University of Melbourne

Honorary Visiting Professor (w/Prof. P. Mulvaney)

Nanocrystals

Santander, Spain
11/23, 3/24–4/24

Utrecht,
Netherlands
5/15–7/15

Melbourne,
Australia
11/14–2/15

Debye Institute for Nanomaterials Science, Utrecht University Debye Chair Professor <i>Nanomaterials</i>	Utrecht, Netherlands 5/13–7/13
Laboratory for Photonics and Interfaces, École Polytechnique Fédérale de Lausanne (EPFL) Invited Visiting Professor (w/Prof. M. Grätzel) <i>Solar energy conversion</i>	Lausanne, Switzerland 11/07–7/08
Center for Applied Photonics, University of Konstanz Invited Visiting Professor (w/Profs. R. Bratschitsch, A. Leitenstorfer) <i>Ultrafast time-resolved Faraday rotation</i>	Konstanz, Germany 9/07–10/07, 8/08

AWARDS AND HONORS

2024-2025 Paul Hopkins Faculty Award, UW Chemistry
 2023-2024 Invited Visiting Professor, Universidad de Cantabria, Spain, High-Pressure and Spectroscopy Laboratory
 2023-2025 Technion Visiting Faculty Award, Haifa, Israel
 2021 NSF Creativity Extension (project DMR-1807394)
 2020 Mercator Fellowship, Deutsche Forschungsgemeinschaft (DFG)
 2020 Prins Lecturer, Syracuse University, Chemistry
 2020 Lagow Lecturer, University of Texas, Austin, Chemistry
 2019 James A. Ibers Summer Lecturer in Inorganic Chemistry, Northwestern Univ., Chemistry
 2018/2016, Chair/Vice Chair, Gordon Research Conf. on Colloidal Semiconductor Nanocrystals
 2018 Marple-Schweitzer Memorial Lectureship, Northwestern University, Chemistry
 2017-2018 Harvard Chemistry/Chemical Biology Student-Invited Lecturer
 2017–present, Nicole A. Boand Endowed Chair
 2016 Fellow of the Royal Society of Chemistry
 2016 Dunne Lecturer, Reed College
 2015 Election to the Washington State Academy of Sciences
 2015 ACS Inorganic Chemistry Lectureship Award
 2015 Invited Visiting Professor, Debye Institute for Nanomaterials Science, Utrecht University
 2014–2015, Honorary Visiting Professor, University of Melbourne, Nanocrystal and Nanomechanics Laboratory
 2013 Debye Chair Professor, Debye Institute for Nanomaterials Science, Utrecht University
 2013 Jonathan L. Sessler Distinguished Alumni Lecturer, Stanford University, Chemistry
 2012 ACS Inorganic Nanoscience Award
 2012 Fellow of the American Association for the Advancement of Science (AAAS)
 2011–2012 Dalton Lecturer (Americas) in Inorganic Chemistry, presented at U.C. Berkeley
 2011 Scialog Fellow of the Research Corporation
 2009 Senior Fellow of the Zukunftskolleg, University of Konstanz
 2008–2017, Harry and Catherine Jayne Boand Endowed Professor of Chemistry
 2008 Ornstein Colloquium Lecturer, Utrecht University
 2007–2008, Invited Visiting Professor, École Polytechnique Fédérale de Lausanne (EPFL), Laboratory for Photonics and Interfaces
 2007–2008, Invited Visiting Professor, University of Konstanz, Institute for Applied Photonics
 2007 Cherry Emerson Lecturer, Georgia Tech, Chemistry
 2006 Distinguished Teaching Award, UW, Chemistry

2006 Alfred P. Sloan Research Fellowship, Sloan Foundation
 2005 Camille Dreyfus Teacher-Scholar Award, Dreyfus Foundation
 2005 Dow Lecturer in Inorganic Chemistry, Caltech
 2003 Presidential Early Career Award for Scientists and Engineers (PECASE)
 2003 Cottrell Scholar Award, Research Corporation
 2003 Faculty Early Career Development Award (CAREER), National Science Foundation
 2002 Research Innovation Award, Research Corporation
 1995 Franklin Veatch Memorial Fellowship Award for excellence in graduate research,
 Stanford University, Chemistry
 1990 Deutscher Akademischer Austauschdienst (DAAD) fellowship for predoctoral research,
 Max-Planck-Institut für Strahlenchemie
 1989 NSF-REU Awardee, Brandeis University, Chemistry

TEACHER/SCHOLAR AWARDS

2006 Distinguished Teaching Award, UW, Chemistry Department
 2005 Camille Dreyfus Teacher-Scholar Award, Dreyfus Foundation
 2003 Cottrell Scholar Award, Research Corporation
 2003 PECASE/CAREER Award, National Science Foundation

SELECT UNIVERSITY AND PROFESSIONAL SERVICE ACTIVITIES

Founding Director, UW Molecular Engineering Materials Center (NSF MRSEC)
 (2017–present)
 Co-Founder and Chief Scientific Advisor, BlueDot Photonics, Inc. (2019–2025)
 Editorial Board, *Journal of Luminescence*, Elsevier (2017–present)
 Washington State Academy of Sciences, Section Membership Committee, Physical and
 Mathematical Sciences (2020–2023)
 Co-Founder and Co-Organizer, Nanocrystals Northwest conference (2019–present, biennial)
 Associate Editor, *Chemical Communications*, Royal Society of Chemistry (2010–2022)
 Chair/Vice Chair, Gordon Research Conference on Colloidal Semiconductor Nanocrystals
 (2018/2016)
 Pauling Award Selection Committee (2017–2019)
 Editorial Advisory Board, *Inorganic Chemistry* (ACS) (2009–2011)
 Editorial Advisory Board, *ACS Catalysis* (2010–2011)
 Chair, Nanoscience Sub-division, ACS Division of Inorganic Chemistry (2006–2007)

PUBLICATIONS

(Google Scholar: *h index* ~ 88; *i10 index* ~ 231; *citations* > 33,500; *avg. citations/pub* > 100)

264. "Exciton Annihilation by Lanthanide Dopants: An Atomic Probe of Sub-Diffraction Exciton Diffusion in Ferromagnetic CrI₃." Pressler, K.; Gamelin, D. R., *submitted* (arXiv.2503.14771).
263. "Cs₂AgSbI₆ Nanocrystals: A New Air-Stable Iodide Double-Perovskite (Elpasolite) Semiconductor." Horani, F.; Gamelin, D. R., *J. Am. Chem. Soc.*, **2025**, *ASAP* (DOI: 10.1021/jacs.5c03942).
262. "Pressure-Induced Modifications of Magnetic and Optical Properties in Yb³⁺-Doped CrBr₃." Snoeren, T. J.; Candela, M. T.; Valiente, R.; Gamelin, D. R., *Opt. Mater.*, **2025**, *advance online* (DOI: 10.1016/j.optmat.2025.117102).

261. "Understanding the Formation of Colloidal Ferrimagnetic CuCr_2Se_4 Nanocrystals with Strong Room-Temperature Magnetic Circular Dichroism." Harvey, S. M.; DeStefano, J. M.; Chu, J.-H.; Gamelin, D. R.; Cossairt, B. M., *Chem. Mater.*, **2024**, 36, 10746–10757.
260. "Optically Resolved Exchange Splittings in the Doped Van der Waals Ferromagnet $\text{CrBr}_3\text{:Yb}^{3+}$." Snoeren, T. J.; Pressler, K.; Gamelin, D. R., *Phys. Rev. Mater.*, **2024**, 8, 104410.
259. "Anion Exchange and Lateral Heterostructure Formation in Ferromagnetic $\text{PEA}_2\text{Cr}(\text{Cl},\text{Br})_4$ Two-Dimensional Perovskites." Walsh, K. M.; Smith, R. T.; Gamelin, D. R., *J. Am. Chem. Soc.*, **2024**, 146, 29159–29168.
258. "Coherent Modulation of Two-Dimensional Moiré States with On-Chip THz Waves." Li, Y.; Arsenault, E. A.; Yang, B.; Wang, X.; Park, H.; Guo, Y.; Taniguchi, T.; Watanabe, K.; Gamelin, D. R.; Hone, J.; Dean, C. R.; Maehrlein, S. F.; Xu, X.; Zhu, X.-Y., *Nano Lett.*, **2024**, 39, 12156–12162.
257. "Reactant Dependent, $10^8\times$ Conductivity Modulation in Plasma-Enhanced Atomic Layer Deposition for Black TiO_2 Films." Berriel, S. N.; McNealy James, T.; Currie, T. M.; Bissell, E.; Butkus, B.; Chen, C.-H.; Tomar, L.; Baillie, J.; Gamelin, D. R.; Davis, K. O.; Jurca, T.; Banerjee, P., *Chem. Mater.*, **2024**, 36, 7647–7655.
256. "Moiré Exchange Effect in Twisted WSe_2/WS_2 Heterobilayer." Zhu, J.; Zheng, H.; Wang, X.; Park, H.; Xiao, C.; Zhang, Y.; Taniguchi, T.; Watanabe, K.; Yan, J.; Gamelin, D. R.; Yao, W.; Xu, X., *Phys. Rev. Lett.*, **2024**, 133, 086501.
255. "Electrohydrodynamic Printing-Based Heterointegration of Quantum Dots on Suspended Nanophotonic Cavities." Guymon, G. G.; Sharp, D.; Cohen, T. A.; Gibbs, S. L.; Manna, A.; Tzanetopoulos, E.; Gamelin, D. R.; Majumdar, A.; MacKenzie, J. D., *Adv. Mater. Technol.*, **2024**, 2301921.
254. "Two-Dimensional Moiré Polaronic Electron Crystals." Arsenault, E. A.; Li, Y.; Yang, B.; Wang, X.; Park, H.; Mosconi, E.; Ronca, E.; Taniguchi, T.; Watanabe, K.; Gamelin, D. R.; Millis, A.; Dean, C. R.; de Angelis, F.; Xu, X.; Zhu, X.-Y., *Phys. Rev. Lett.*, **2024**, 132, 126501.
253. "Oriented Assembly of Lead-Halide Perovskite Nanocrystals." Liu, L.; Kluherz, K. T.; Jin, B.; Gamelin, D. R.; De Yoreo, J. J.; Sushko, M. L., *Nano Lett.*, **2024**, 24, 3299–3306.
252. "Leveraging Cation Exchange in InP Magic Sized Clusters to Access Coinage Metal Phosphide Nanocrystals." Eagle, F. W.; Harvey, S.; Larson, H.; Abbott, A.; Ladd, D.; Levine, K.; Toney, M.; Gamelin, D. R.; Cossairt, B. M., *Chem. Mater.*, **2024**, 36, 2888–2897.
251. "An Air-Stable and Exfoliable Ferromagnetic 2D-Perovskite, $(\text{Phenethylammonium})_2\text{CrCl}_4$." Smith, R. T.; Walsh, K. M.; Jiang, Q.; Chu, J.-H.; Gamelin, D. R., *Chem. Mater.*, **2024**, 36, 1571–1578.
250. "Multivariate Analysis on the Structure-Activity Parameters for CuO_x -Catalyzed Probe Reactions." Shultz-Johnson, L. R.; Chang, M.; Bisram, N. N.; Bryant, J. T.; Martin, C. P.; Rahmani, A.; Furst, J. I.; Caranto, J. D.; Banerjee, P.; Uribe-Romo, F. J.; Gamelin, D. R.; Jurca, T., *ACS Appl. Nano Mater.*, **2024**, 7, 928–939.
249. "Evolution of Yb^{3+} Speciation in Cl^-/Br^- and $\text{Yb}^{3+}/\text{Gd}^{3+}$ -Alloyed Quantum-Cutting Lead-Halide Perovskite Nanocrystals." Roh, J. Y. D.; Sommer, D. E.; Milstein, T. J.; Dunham, S. T.; Gamelin, D. R., *Chem. Mater.*, **2023**, 35, 8057–8064.
248. "Enhanced Charge Transfer from Coinage-Metal-Doped InP Quantum Dots." Eagle, F. W.; Harvey, S.; Beck, R.; Li, X.; Gamelin, D. R.; Cossairt, B. M., *ACS Nanoscience Au*, **2023**, 3, 451–461.

247. "Negative Thermal Quenching in Quantum-Cutting Yb³⁺-Doped CsPb(Cl_{1-x}Br_x)₃ Perovskite Nanocrystals." Roh, J. Y. D.; Milstein, T. J.; Gamelin, D. R., *ACS Nano*, **2023**, *17*, 17190–17198.
246. "Optically Detected Magnetic Resonance Spectroscopic Analyses on the Role of Magnetic Ions in Colloidal Nanocrystals." Dehnel, J.; Harchol, A.; Barak, Y.; Meir, I.; Horani, F.; Shapiro, A.; Strassberg, R.; de Mello Donega, C.; Demir, H. V.; Gamelin, D. R.; Sharma, K.; Lifshitz, E., *J. Chem. Phys.*, **2023**, *159*, 071001.
245. "Luminescence and Covalency in Ytterbium-Doped CrX₃ (X = Cl, Br, I) van der Waals Compounds." Snoeren, T.; Pressler, K.; Kluherz, K. T.; Walsh, K. M.; De Yoreo, J. D.; Gamelin, D. R., *J. Am. Chem. Soc.*, **2023**, *145*, 17427–17434.
244. "Structure and Stability of the Iodide Elpasolite, Cs₂AgBiI₆." Kluherz, K. T.; Mergelsberg, S.; De Yoreo, J. J.; Gamelin, D. R., *Chem. Mater.*, **2023**, *35*, 5699–5708.
243. "Design Rules for Obtaining Narrow Luminescence from Semiconductors Made in Solution." Nguyen, H.; Dixon, G.; Dou, F. Y.; Gallagher, S.; Gibbs, S.; Ladd, D.; Marino, E.; Ondry, J.; Shanahan, J.; Vasileiadou, E.; Barlow, S.; Gamelin, D. R.; Ginger, D. S.; Jonas, D.; Kanatzidis, M. C.; R. Marder, S.; Morton, D.; Murray, C. B.; Owen, J. S.; Talapin, D. V.; Toney, M. F.; Cossairt, B. M., *Chem. Rev.*, **2023**, *123*, 7890–7952.
242. "Effect of a Redox-Mediating Ligand Shell on Photocatalysis by CdS Quantum Dots." Dou, F.; Harvey, S.; Mason, K.; Homer, M.; Gamelin, D. R.; Cossairt, B., *J. Chem. Phys.*, **2023**, *158*, 184705.
241. "Dipole Ladders with Giant Hubbard U in Moiré Exciton Lattice." Park, H.; Zhu, J.; Wang, X.; Wang, Y.; Holtzmann, W.; Taniguchi, T.; Watanabe, K.; Yan, J.; Fu, L.; Cao, T.; Xiao, D.; Gamelin, D. R.; Yu, H.; Yao, W.; Xu, X., *Nature Physics*, **2023**, *19*, 1286–1292.
240. "HF-Free Synthesis of Colloidal Cs₂ZrF₆ and (NH₄)₂ZrF₆ Nanocrystals." Tzanetopoulos, E.; Schwartz, J.; Gamelin, D. R., *Chem. Commun.*, **2023**, *59*, 5451–5454.
239. "Intercell Moiré Exciton Complexes in Electron Lattices." Wang, X.; Zhang, X.; Zhu, J.; Park, H.; Wang, Y.; Wang, C.; Holtzmann, W.; Taniguchi, T.; Watanabe, K.; Yan, J.; Gamelin, D. R.; Yao, W.; Xiao, D.; Cao, T.; Xu, X., *Nature Materials*, **2023**, *22*, 599–604.
238. "Magnetic Amplification at Yb³⁺ 'Designer Defects' in the van der Waals Ferromagnet, CrI₃." Pressler, K.; Snoeren, T. J.; Walsh, K. M.; Gamelin, D. R., *Nano Lett.*, **2023**, *23*, 1320–1326.
237. "Synthetic Control of Intrinsic Defect Formation in Metal Oxide Nanocrystals using Dissociated Spectator Metal Salts." Kim, K.; Yu, J.; Noh, J. Reimnitz, L. C.; Chang, M.; Gamelin, D. R.; Korgel, B. A.; Hwang, G. S.; Milliron, D. J., *J. Am. Chem. Soc.*, **2022**, *144*, 22941–22949.
236. "Understanding External Pressure Effects and Interlayer Orbital Exchange Pathways in the Two Dimensional Magnet – Chromium Triiodide." Beck, R. A.; Sun, S.; Xu, X.; Gamelin, D. R.; Cao, T.; Li, X., *J. Phys. Chem. C*, **2022**, *126*, 19327–19335.
235. "Optically Detected Magnetic Resonance Spectroscopy of Cu-doped CdSe and Cu-based CuInS₂ Colloidal Quantum Dots." Harchol, A.; Barak, Y.; Hughes, K. E.; Hartstein, K. H.; Jöbsis, H. j.; Prins, P. T.; de Mello Donega, C.; Gamelin, D. R.; Lifshitz, E., *ACS Nano*, **2022**, *16*, 12866–12877.
234. "Defect Structure in Quantum-Cutting Yb³⁺-Doped CsPbCl₃ Perovskites Probed by X-Ray Absorption and Atomic Pair Distribution Function Analysis." Kluherz, K. T.; Mergelsberg, S. T.; Sommer, D. E.; Roh, J. Y. D.; Saslow, S. A.; Biner, D.; Krämer, K. W.; Dunham, S. T.; De Yoreo, J. J.; Gamelin, D. R., *Phys. Rev. Mater.*, **2022**, *6*, 074601.

233. "Direct Patterning of Perovskite Nanocrystals on Nanophotonic Cavities with Electrohydrodynamic Inkjet Printing." Cohen, T. A.; Sharp, D.; Kluherz, K. T.; Chen, Y.; Mulney, C.; Anderson, R. T.; Swanson, C. J.; De Yoreo, J. J.; Luscombe, C. K.; Majumdar, A.; Gamelin, D. R.; Mackenzie, J. D., *Nano Lett.*, **2022**, 22, 5681–5688.
232. "Ubiquitous Near-Band-Edge Defect State in Rare-Earth-Doped Lead-Halide Perovskites." Milstein, T. J.; Roh, J. Y. D.; Jacoby, L. M.; Crane, M. J.; Sommer, D. E.; Dunham, S. T.; Gamelin, D. R., *Chem. Mater.*, **2022**, 34, 3759–3769.
231. "Light-Induced Ferromagnetism in Moiré Superlattices." Wang, X.; Xiao, C.; Park, H.; Zhu, J.; Wang, C.; Taniguchi, T.; Watanabe, K.; Yan, J.; Xiao, D.; Gamelin, D. R.; Yao, W.; Xu, X., *Nature*, **2022**, 604, 468–473.
230. "Defect Formation in Yb-Doped CsPbCl₃ from First Principles, with Implications for Quantum Cutting." Sommer, D. E.; Gamelin, D. R.; Dunham, S. E., *Phys. Rev. Mater.*, **2022**, 6, 025404.
229. "Universal Machine Learning Framework for Defect Predictions in Zinc Blende Semiconductors." Mannodi-Kanakkithodi, A.; Xiang, X.; Jacoby, L.; Biegaj, R.; Dunham, S. T.; Gamelin, D. R.; Chan, M. K. Y., *Patterns*, **2022**, 3, 100450.
228. "Coherent Spin Dynamics in Vapor-Deposited CsPbBr₃ Thin Films." Jacoby, L. M.; Crane, M. J.; Gamelin, D. R., *Chem. Mater.*, **2022**, 34, 1937–1945.
227. "Uncovering the Influence of Ni²⁺ Doping in Lead-Halide Perovskite Nanocrystals using Optically Detected Magnetic Resonance Spectroscopy." Barak, Y.; Meir, I.; Dehnel, J.; Horani, F.; Gamelin, D. R.; Shapiro, A.; Lifshitz, E., *Chem. Mater.*, **2022**, 34, 1686–1698.
226. "Ferromagnetism and Spin-Polarized Luminescence in Lead-Free CsEuCl₃ Perovskite Nanocrystals and Thin Films." Walsh, K. M.; Pressler, K.; Crane, M. J.; Gamelin, D. R., *ACS Nano*, **2022**, 16, 2569–2576.
225. "Consensus Statement: Standardized Reporting of Power-Producing Luminescent Solar Concentrator Performance." Yang, C.; Atwater, H. A.; Baldo, M. A.; Baran, D.; Barile, C.; Barr, M. C.; Bates, M.; Bawendi, M. G.; Berggren, M. R.; Brabec, C. J.; Brovelli, S.; Bulović, V.; Ceroni, P.; Debije, M. G.; Delgado-Sanchez, J.-M.; Dong, W.-J.; Duxbury, P. M.; Evans, R. C.; Forrest, S. R.; Gamelin, D. R.; Giebink, N. C.; Gong, X.; Griffini, G.; Guo, F.; Herrera, C. K.; Ho-Baillie, A. W. Y.; Holmes, R. J.; Hong, S.-K.; Kirchartz, T.; Li, H.; Li, Y.; Liu, D.; Loi, M. A.; Luscombe, C. K.; Makarov, N. S.; Mateen, F.; Mazzaro, R.; McDaniel, H.; McGehee, M. D.; Meinardi, F.; Menéndez-Velázquez, A.; Min, J.; Mitzi, D. B.; Moon, J. H.; Nattestad, A.; Nazeeruddin, M. K.; Nogueira, A. F.; Paetzold, U. W.; Patrick, D. L.; Pucci, A.; Rand, B. P.; Reichmanis, E.; Richards, B. S.; Roncali, J.; Rosei, F.; Schmidt, T. W.; So, F.; Tu, C.-C.; van Sark, W. G. J. H. M.; Verduzco, R.; Vomiero, A.; Wong, W. W. H.; Wu, K.; Yip, H.-L.; Zhang, X.; Zhao, H.; Lunt, R. R., *Joule*, **2022**, 6, 1–15.
224. "Organic Building Blocks at Inorganic Nanomaterial Interfaces." Huang, Y.; Cohen, T. A.; Sperry, B. M.; Larson, H.; Nguyen, H.; Homer, M.; Dou, F. Y.; Jacoby, L. M.; Cossairt, B. M.; Gamelin, D. R.; Luscombe, C. K., *Mater. Horizons*, **2022**, 9, 61–87.
223. "Spin-Orbit Coupled Exciton-Polariton Condensates in Lead Halide Perovskites." Spencer, M. S.; Fu, Y.; Schlaus, A. P.; Hwang, D.; Dai, Y.; Smith, M. D.; Gamelin, D. R.; Zhu, X.-Y., *Science Advances*, **2021**, 7, eabj7667.
222. "Imaging Infrared Plasmon Hybridization in Doped Semiconductor Nanocrystal Dimers." Olafsson, A.; Khorasani, S.; Busche, J. A.; Araujo, J. J.; Idrobo, J. C.; Gamelin, D. R.; Masiello, D. J.; Camden, J. P., *J. Phys. Chem. Lett.*, **2021**, 12, 10270–10276.

221. "Unraveling Strain Gradient Induced Electromechanical Coupling in Twisted Double Bilayer Graphene Moiré Superlattices." Li, Y.; Wang, X.; Tang, D.; Wang, X.; Watanabe, K.; Taniguchi, T.; Gamelin, D. R.; Cobden, D. H.; Yankowitz, M.; Xu, X.; Li, J., *Adv. Mater.*, **2021**, *33*, 2105879.
220. "Moiré Trions in MoSe₂/WSe₂ Heterobilayers." Wang, X.; Zhu, J.; Seyler, K.; Rivera, P.; Zheng, H.-Y.; Wang, Y.; He, M.; Taniguchi, T.; Watanabe, K.; Yan, J.; Mandrus, D. G.; Gamelin, D. R.; Yao, W.; Xu, X., *Nature Nanotech.*, **2021**, *16*, 1208–1213.
219. "Tunable Band-Edge Potentials and Charge Storage in Colloidal Tin-Doped Indium-Oxide (ITO) Nanocrystals." Araujo, J. J.; Brozek, C. K.; Liu, H.; Merkulova, A.; Li, X.; Gamelin, D. R., *ACS Nano*, **2021**, *15*, 14116–14124.
218. "Orientation of Individual Anisotropic Nanocrystals Identified by Polarization Fingerprint." Lorenz, S.; Bieniek, J.; Erickson, C. S.; Gamelin, D. R.; Fainblat, R.; Bacher, G., *ACS Nano*, **2021**, *15*, 13579–13590.
217. "Hydrothermal Synthesis of Yb³⁺:LuLiF₄ Microcrystals and Laser Refrigeration of Yb³⁺:LuLiF₄/Silicon-Nitride Composite Nanostructures." Dobretsova, E. A.; Xia, X.; Pant, A.; Lim, M. B.; De Siena, M. C.; Boldyrev, K. N.; Molchanova, A. D.; Novikova, N. N.; Klimin, S. A.; Popova, M. N.; Chen, Y.; Majumdar, A.; Gamelin, D. R.; Pauzauskie, P. J., *Laser Photonics Rev.*, **2021**, *15*, 2100019.
216. "State of the Art and Prospects of Halide Perovskite Nanocrystals." Dey, A.; Ye, J.; De, A.; Debroye, E.; Ha, S. K.; Kshirsagar, A. S.; Bladt, E.; Wang, Z.; Yin, J.; Wang, Y.; Quan, L. N.; Fei, Y.; Gao, M.; Li, X.; Cao, M.; Debnath, T.; Scheel, M. A.; Shamsi, J.; Kumar, S.; Steele, J. A.; Gerhard, M.; Chouhan, L.; Xu, K.; Wu, X.-G.; Li, Y.; Zhang, Y.; Dutta, A.; Han, C.; Vincon, I.; Rogach, A. L.; Nag, A.; Samanta, A.; Korgel, B. A.; Shih, C.-J.; Gamelin, D. R.; Son, D. H.; Zeng, H.; Zhong, H.; Sun, H.; Demir, H. V.; Scheblykin, I. G.; Mora-Seró, I.; Zhang, J. Z.; Feldmann, J.; Hofkens, J.; Luther, J. M.; Pérez-Prieto, J.; Li, L.; Manna, L.; Bodnarchuk, M. I.; Kovalenko, M. V.; Roelfsaers, M. B. J.; Pradhan, N.; Mohammed, O. F.; Bakr, O. M.; Yang, P.; Müller-Buschbaum, P.; Kamat, P. V.; Zhang, Q.; Krahne, R.; Galian, R. E.; Stranks, S. D.; Bals, S.; Biju, V.; Bao, Q.; Tisdale, W. A.; Yan, Y.; Hoye, R. L. Z.; Polavarapu, L., *ACS Nano*, **2021**, *15*, 10775–10981.
215. "Hydrothermal Synthesis and Solid-State Laser Refrigeration of Ytterbium-Doped Potassium Lutetium Fluoride (KLF) Microcrystals." Xia, X.; Pant, A.; Zhou, X.; Dobretsova, E. A.; Bard, A. B.; Lim, M. B.; Roh, J. Y. D.; Gamelin, D. R.; Pauzauskie, P. J., *Chem. Mater.*, **2021**, *33*, 4417–4424.
214. "Modular Zwitterion-Functionalized Poly(Isopropyl Methacrylate) Polymers for Hosting Luminescent Lead-Halide Perovskite Nanocrystals." Cohen, T. A.; Huang, Y.; Milstein, T. J.; Mackenzie, J. D.; Luscombe, C. K.; Gamelin, D. R., *Chem. Mater.*, **2021**, *33*, 3779–3790.
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