

## List of publications: Ravishankar Sundararaman

125. *Adv. Mater. Interf.*, e00931 (2026), B. Wang, A. Jog, P. Fang, S. Kumar, R. Shu, J. Shi, R. Sundararaman and D. Gall, 'Cr<sub>2</sub>AlC: A High-Temperature Transparent Conducting Ceramic'
124. *APL Mater.* **14**, 011103 (2026), Q. P. Sam, L. J. Joyce, M. T. Kiani, S. D. Funni, R. Sundararaman and J. J. Cha, 'Resistivity scaling of CuAl<sub>2-x</sub> nanowires for post-Cu interconnects'
123. *ACS Mater. Lett.* **7**, 3901 (2025), N. Karimitari, T. Pakornchote, A. W. Alherz, J. M. Clary, C. Tezak, S. Dey, J. Hu, D. Vigil-Fowler, R. Sundararaman, C. B. Musgrave and C. Sutton, 'Δ-Learning of High-Fidelity Electronic Structure Using Graph Neural Networks with Modified Node-Level Features'
122. *Phys. Rev. Mater.* **9**, 076005 (2025), N. K. Duong, C. Multunas, T. Whoriskey, M. T. Kiani, S. R. Saha, S. D. Funni, Q. P. Sam, H. Wang, S. Kushwaha, J. Paglione, R. Sundararaman and J. J. Cha, 'Nanomolding single crystalline CoIn<sub>3</sub> and RhIn<sub>3</sub> nanowires'
121. *J. Chem. Theory Comput.* **21**, 4718 (2025), J. M. Clary, O. A. Hull, D. Weinberg, R. Sundararaman, M. Del Ben and D. Vigil-Fowler, 'Static Subspace Approximation for Random Phase Approximation Correlation Energies: Applications to Materials for Catalysis and Electrochemistry'
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119. *Small Struct.* **6**, 2400638 (2025), Y. Li, G. Zhou, M. M. Kelley, S. S. Nishat, S. Bey, M. A. Karim, X. Liu, B. A. Assaf, D. Gall, R. Sundararaman and C. L. Hinkle, 'PtCoO<sub>2</sub> for Scaled Interconnects'
118. *Phys. Rev. B* **111**, 115113 (2025), J. Quinton, M. Fadel, J. Xu, A. Habib, M. Chandra, Y. Ping and R. Sundararaman, 'Magnetic-field dependence of spin-phonon relaxation and dephasing due to -factor fluctuations from first principles'
117. *J. Phys. Chem. C* **128**, 20165 (2024), C. Tezak, J. Clary, S. Gerits, J. Quinton, B. Rich, N. Singstock, A. Alherz, T. Aubry, S. Clark, R. Hurst, M. Del Ben, C. Sutton, R. Sundararaman, C. Musgrave and D. Vigil-Fowler, 'BEAST DB: Grand-Canonical Database of Electrocatalyst Properties'
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114. *J. Chem. Phys.* **161**, 144101 (2024), M. M. Kelley, J. Quinton, K. Fazel, N. Karimitari, C. Sutton and R. Sundararaman, 'Bridging electronic and classical density-functional theory using universal machine-learned functional approximations'
113. *J. Chem. Theory Comput.* **20**, 8237 (2024), D. Weinberg, O. A. Hull, J. M. Clary, R. Sundararaman, D. Vigil-Fowler and M. Del Ben, 'Static Subspace Approximation for Random Phase Approximation Correlation Energies: Implementation and Performance'

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108. *J. Appl. Phys.* **135**, 160401 (2024), A. Stelson, D. Laage, K. Schwarz and R. Sundararaman, ‘Solid-liquid interfaces: Atomic-scale structure and dynamics’
107. *Light: Sci. Appl.* **13**, 91 (2024), A. R. Bowman, A. R. Echarri, F. Kiani, F. Iyikanat, T. V. Tsoulos, J. D. Cox, R. Sundararaman, F. J. García de Abajo and G. Tagliabue, ‘Quantum-mechanical effects in photoluminescence from thin crystalline gold films’
106. *Curr. Opin. Solid State Mater. Sci.* **29**, 101145 (2024), Z. Wang, Z. Chen, R. Xu, H. Zhu, R. Sundararaman and J. Shi, ‘Challenges and opportunities in searching for Rashba-Dresselhaus materials for efficient spin-charge interconversion at room temperature’
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93. *Nanomater.* **13**, 2394 (2023), P. Prabhune, Y. Comlek, A. Shandilya, R. Sundararaman, L. S. Schadler, L. C. Brinson and W. Chen, ‘Design of Polymer Nanodielectrics for Capacitive Energy Storage’
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87. *J. Appl. Phys.* **133**, 045102 (2023), M. Zhang, S. Kumar, R. Sundararaman and D. Gall, ‘Resistivity scaling in CuTi determined from transport measurements and first-principles simulations’
86. *Phys. Rev. Mater.* **6**, 125201 (2022), S. Kumar, C. Multunas and R. Sundararaman, ‘Fermi surface anisotropy in plasmonic metals increases the potential for efficient hot carrier extraction’
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