

List of publications: Ravishankar Sundararaman

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’
105. *ACS Nano* **18**, 1110 (2024), Q. P. Sam, Q. Tan, C. Multunas, M. T. Kiani, R. Sundararaman, X. Ling and J. J. Cha, ‘Nanomolding of Two-Dimensional Materials’
104. *Phys. Rev. Materials* **8**, L011001 (2024), A. Ghorashi, N. Rivera, B. Shi, R. Sundararaman, E. Kaxiras, J. Joannopoulos, and M. Soljacic, ‘Highly confined, low-loss plasmonics based on two-dimensional solid-state defect lattices’
103. *J. Appl. Phys.* **135**, 025101 (2024), M. M. Salour, J. G. Grote, G. Kataria, M. Chandra and R. Sundararaman, ‘Electromagnetic shielding using Anderson localization in nanoparticle–biopolymer composites’
102. *Phys. Rev. Lett.* **132**, 016203 (2024), M. M. Kelley, R. Sundararaman and T. A. Arias, ‘Fully Ab Initio Approach to Inelastic Atom-Surface Scattering’
101. *Nature Commun.* **15**, 188 (2024), J. Xu, K. Li, U. N. Huynh, M. Fadel, J. Huang, R. Sundararaman, V. Vardeny and Y. Ping, ‘How spin relaxes and dephases in bulk halide perovskites’
100. *Phys. Rev. Materials* **7**, 123801 (2023), C. Multunas, A. Grieder, J. Xu, Y. Ping and R. Sundararaman, ‘Circular dichroism of crystals from first principles’
99. *J. Phys. Energy* **5**, 041501 (2023), C. Zhang, J. Cheng, Y. Chen, M. K. Y. Chan, Q. Cai, R. P. Carvalho, C. F. N. Marchiori, D. Brandell, C. M. Araujo, M. Chen, X. Ji, G. Feng, K. Goloviznina, A. Serva, M. Salanne, T. Mandai, T. Hosaka, M. Alhanash, P. Johansson, Y.-Z. Qiu, H. Xiao, M. Eikerling, R. Jinnouchi, M. M. Melander, G. Kastlunger, A. Bouzid, A. Pasquarello, S.-J. Shin, M. M. Kim, H. Kim, K. Schwarz and R. Sundararaman, ‘2023 Roadmap on molecular modelling of electrochemical energy materials’
98. *Chem. Mater.* **35**, 8397 (2023), S. Adhikari, J. Clary, R. Sundararaman, C. B. Musgrave, D. Vigil-Fowler and C. A. Sutton, ‘Accurate Prediction of HSE06 Band Structures for a Diverse Set of Materials Using Δ -Learning’
97. *ACS Catal.* **13**, 12894 (2023), C. R. Tezak, N. R. Singstock, A. W. Alherz, D. Vigil-Fowler, C. A. Sutton, R. Sundararaman, and C. B. Musgrave, ‘Revised Nitrogen Reduction Scaling Relations from Potential-Dependent Modeling of Chemical and Electrochemical Steps’
96. *J. Chem. Phys.* **159**, 124502 (2023), T. Shah, K. Fazel, J. Lian, L. Huang, Y. Shi and R. Sundararaman, ‘First-principles molten salt phase diagrams through thermodynamic integration’
95. *ACS Energy Lett.* **8**, 4242 (2023), F. Kiani, A. R. Bowman, M. Sabzehparsvar, C. O. Karaman, R. Sundararaman and G. Tagliabue, ‘Transport and Interfacial Injection of d-Band Hot Holes Control Plasmonic Chemistry’
94. *J. Appl. Phys.* **134**, 085001 (2023), J. M. Clary, M. Del Ben, R. Sundararaman and D. Vigil-Fowler, ‘Impact of solvation on the GW quasiparticle spectra of molecules’
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’
92. *Appl. Phys. Lett.* **122**, 260502 (2023), G. Ramanath, C. Rowe, G. Sharma, V. Venkataramani, J. G. Alauzun, R. Sundararaman, P. Kebbinski, D. G. Sangiovanni, P. Eklund and H. Pedersen, ‘Engineering inorganic interfaces using molecular nanolayers’
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89. *Adv. Mater.* **35**, 2208965 (2023), H. J. Han, S. Kumar, G. Jin, X. Ji, J. L. Hart, D. J. Hynek, Q. P. Sam, V. Hasse, C. Felser, D. G. Cahill, R. Sundararaman and J. J. Cha, ‘Topological Metal MoP Nanowire for Interconnect’
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82. *Chem. Rev.* **122**, 10651 (2022), R. Sundararaman, D. Vigil-Fowler and K. Schwarz, ‘Improving the Accuracy of Atomistic Simulations of the Electrochemical Interface’
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75. *MRS Bulletin* **46**, 959 (2021), D. Gall, J. J. Cha, Z. Chen, H.-J. Han, C. Hinkle, J. A. Robinson, R. Sundararaman and R. Torsi, ‘Materials for interconnects’
74. *Trends Chem.* **3**, 902 (2021), S. Kumar, A. Habib and R. Sundararaman, ‘Plasmonic hot carriers scratch the surface’
73. *Phys. Rev. B* **104**, 115132 (2021), J. K. Nangoi, S. Karkare, R. Sundararaman, H. A. Padmore and T. A. Arias, ‘The importance of bulk excitations and coherent electron-photon-phonon scattering in photoemission from PbTe(111): Ab initio theory with experimental comparisons’
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68. *J. Appl. Phys.* **129**, 035301 (2021), L. Chen, S. Kumar, M. Yahagi, D. Ando, Y. Sutou, D. Gall, R. Sundararaman and J. Koike, ‘Interdiffusion reliability and resistivity scaling of intermetallic compounds as advanced interconnect materials’
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66. *J. Phys. Chem. Lett.* **12**, 440 (2021), K. Schwarz, M. C. Groenenboom, T. P. Moffat, R. Sundararaman and J. Vinson, ‘Resolving the Geometry/Charge Puzzle of the c(2x2)-Cl Cu(100) Electrode’
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