
Ram Seshadri: Publications and Patents

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Awarded US Patents:

5. K. A. Denault, S. P. DenBaars, and R. Seshadri, Laser-driven white lighting system for high-brightness applications United State Patent 9,574,728 (February 21, 2017)
4. R. Seshadri, A. Birkel, B. Hong, and J. A. Gerbec, Single phase and full-color phosphor, United State Patent 9,228,125 B2 (January 5, 2016).
3. W.-B. Im, R. Seshadri, and S. P. DenBaars, Solid solution phosphors based on oxyfluoride and white light emitting diodes including the phosphors for solid state white lighting applications, United State Patent 8,535,565 (September 17, 2013).
2. W.-B. Im, R. Seshadri, and S. P. DenBaars, Oxyfluoride phosphors and white light emitting diodes including the oxyfluoride phosphor for solid-state lighting applications, United State Patent 8,344,611 B2 (January 1, 2013).
1. W.-B. Im, R. Seshadri, and S. P. DenBaars, Yellow emitting phosphors based on Ce³⁺-doped aluminate and via solid solution for solid-state lighting applications, United States Patent 8,163,203 (April 24, 2012).

In press, or submitted:

J. D. Bocarsly, C. Heikes, C. M. Brown, S. D. Wilson, and R. Seshadri, Deciphering structural and magnetic disorder in the chiral skyrmion host materials Co_xZn_yMn_z ($x + y + z = 20$).

H. A. Evans, J. L. Andrews, D. H. Fabini, M. B. Preefer, G. Wu, A. K. Cheetham, F. Wudl, and R. Seshadri, The capricious nature of iodine catenation in I₂ excess, perovskite-derived hybrid Pt(IV) compounds.

M. M. Butala, V. V. T. Doan-Nguyen, A. Lehner, C. Göbel, M. A. Lumley, S. Arnon, K. Wiaderek, O. Borkiewicz, K. Chapman, P. Chupas, M. Balasubramanian, and R. Seshadri, Operando studies reveal structural evolution with electrochemical cycling in Li–CoS₂, *J. Phys. Chem. C*.

Appeared:

318. N. Schauer, G. Sanoja, J. Bartels, S. Jain, J. Hu, S. Han, L. Walker, M. Helgeson, R. Seshadri, and R. Segalman, Decoupling bulk mechanics and mono- and multivalent ion transport in polymers based on metal-ligand coordination, *Chem. Mater.* **30** (2018) 5759–5769. [DOI: 10.1021/acs.chemmater.8b02633] & [UC-eScholarship]
317. H. A. Evans, D. H. Fabini, J. L. Andrews, M. Koerner, M. B. Preefer, G. Wu, F. Wudl, A. K. Cheetham, and R. Seshadri, Hydrogen bonding controls the structural evolution in perovskite-related hybrid platinum (IV) iodides, *Inorg. Chem.* **57** (2018) 10375–10382. [DOI: 10.1021/acs.inorgchem.8b01597] & [UC-eScholarship]
316. E. E. Levin, F. Long, J. E. Douglas, M. L. C. Buffon, L. K. Lamontagne, T. M. Pollock, and R. Seshadri, Enhancing thermoelectric properties through control of nickel interstitials and phase separation in Heusler/half-Heusler TiNi_{1.1}Sn composites, *Materials* **11** (2018) 903(1–12). [DOI: 10.3390/ma11060903] & [UC-eScholarship]
315. I. Spanopoulos, W. Ke, C. Stoumpos, E. C. Schueller, O. Kontsevoi, R. Seshadri, and M. Kanatzidis, Unraveling the chemical nature of the 3D “hollow” hybrid halide perovskites, *J. Am. Chem. Soc.* **140** (2018) 5728–5742. [DOI: 10.1021/jacs.8b01034] & [UC-eScholarship]
314. J. D. Bocarsly, R. F. Need, R. Seshadri, and S. D. Wilson, Magnetoentropic signatures of skyrmionic phase behavior in FeGe, *Phys. Rev. B.* **97** (2018) 100404(R). [DOI: 10.1103/PhysRevB.97.100404] & [UC-eScholarship]

313. G. Sanoja, N. Schauer, J. Bartels, C. Evans, M. Helgeson, R. Seshadri, R. Segalman, Ion transport in dynamic polymer networks based on metal-ligand coordination, *Macromolecules* **51** (2018) 2017–2026. [DOI: 10.1021/acs.macromol.7b02141] & [UC-eScholarship]
312. A. M. Zieschang, J. Bocarsly, M. Duerrschnabel, H.-J. Kleebe, R. Seshadri, and B. Albert, Low-temperature synthesis and magnetostructural transition in antiferromagnetic, refractory nanoparticles: Chromium nitride, CrN, *Chem. Mater.* **30** (2018) 1610–1616. [DOI: 10.1021/acs.chemmater.7b04815] & [UC-eScholarship]
311. J. Grebenkemper, J. Bocarsly, E. Levin, G. Seward, C. Heikes, C. Brown, S. Misra, F. Seeler, K. Schierle-Arndt, S. Wilson, and R. Seshadri, Rapid microwave preparation and composition tuning of the high-performance magnetocalorics (Mn,Fe)₂(P,Si), *ACS Appl. Mater. Interfaces* **10** (2018) 7208–7213. [DOI: 10.1021/acsami.7b16988] & [UC-eScholarship]
310. C. Cozzan, G. Lheureux, N. O’Dea, E. Levin, J. Graser, T. Sparks, S. Nakamura, S. DenBaars, C. Weisbuch, and R. Seshadri, Stable, heat conducting phosphor composites for high-power laser lighting, *ACS Appl. Mater. Interfaces* **10** (2018) 5673–5681. [DOI: 10.1021/acsami.8b00074] & [UC-eScholarship]
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306. D. Fabini, T. A. Siaw, C. Stoumpos, G. Laurita, D. Olds, K. Page, J. Hu, M. Kanatzidis, S. Han, and R. Seshadri, Universal dynamics of molecular reorientation in hybrid lead iodide perovskites. *J. Am. Chem. Soc.* **139** (2017) 16875–16884. [DOI: 10.1021/jacs.7b09536] & [UC-eScholarship]
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