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 Ce^{3+}-doped aluminate and via solid solution for solid-state lighting applications, United States Patent 8,163,203 (April 24, 2012).

In press, or submitted:

Fermi level Dirac crossings in the 4/5 d cubic oxide metals $NaPd_3O_4$ and $NaPt_3O_4$, S. M. L. Teicher, L. K. Lamontagne, L. M. Schoop, and R. Seshadri.

K. Pilar, Z. Deng, M. B. Preefer, J. A. Cooley, R. Clément, R. Seshadri, and A. K. Cheethama, *Ab initio* computation for solid-state ^{31}P NMR of inorganic phosphates: Revisiting X-ray structures.

N. S. Schauser, R. Seshadri, and R. A. Segalman, Multivalent ion conduction in solid polymer systems, *Mol. Syst. Des. Eng.*

D. H. Fabini, M. Koerner, and R. Seshadri, Candidate inorganic photovoltaic materials from electronic structure-based optical absorption and charge transport proxies, *Chem. Mater.*

H. A. Evans, Z. Deng, I. E. Collings, Y. Wu, J. L. Andrews, K. Pilar, J. M. Tuffnell, G. Wu, J. Wang, S. E. Dutton, P. D. Bristowe, R. Seshadri, and A. K. Cheetham, Polymorphism in $M(H_2PO_2)_3$ (M = V, Al, Ga) compounds with the perovskite-related ReO_3 structure, *Chem. Comm.* [**DOI: 10.1039/c9cc00118b**] & [**UC-eScholarship**]

Appeared:

321. 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 I_2 excess, perovskite-derived hybrid Pt(IV) compounds, *Chem. Comm.* **55** (2019) 588–591. [**DOI: 10.1039/c8cc07536k**] & [**UC-eScholarship**]

320. 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 $Co_xZn_yMn_z$ ($x + y + z = 20$), *Phys. Rev. Mater.* **3** (2019) 014402(1–16), Editor's Suggestion. [**DOI: 10.1103/PhysRevMaterials.3.014402**] & [**UC-eScholarship**]

319. 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–CoS_2, *J. Phys. Chem. C.* **122** (2018) 24559–24569. [**DOI: 10.1021/acs.jpcc.8b07828**] & [**UC-eScholarship**]

318. N. Schauser, 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**]

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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**]

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