

Ram Seshadri Publications and Patents (updated August 8, 2017):

With DOI links where available. Also to be found at <http://www.mrl.ucsb.edu/~seshadri>

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:

E. Decolvenaere, M. Gordon, R. Seshadri, and A. Van der Ven, First-principles investigation of competing magnetic interactions in Heusler $(\text{Mn,Fe})\text{Ru}_2\text{Sn}$ solid solutions.

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, Local structure studies reveal the origin of capacity fade in the Li-CoS_2 system.

M. Butala, M. Perez, C. Göbel, M. Preefer, S. Arnon, and R. Seshadri, Rapid microwave-assisted preparation of binary and ternary transition metal sulfide compounds.

C. Cozzan, G. Laurita, M. W. Gaultois, M. Cohen, A. A. Mikhailovsky, M. Balasubramanian, and R. Seshadri, Understanding the links between composition, polyhedral distortion, and luminescence properties in green-emitting $\beta\text{-Si}_{6-z}\text{Al}_2\text{O}_z\text{N}_{8-z}:\text{Eu}^{2+}$ phosphor

M. Buffon, G. Laurita, L. Lamontagne, E. Levin, S. Mooraj, D. Lloyd, N. White, T. Pollock, and R. Seshadri, Thermoelectric performance and the role of anti-site disorder in the 24-electron Heusler TiFe_2Sn , *J. Phys. Condensed Matter*.

H. A. Evans, E. C. Schueller, S. R. Smock, G. Wu, R. Seshadri, and F. Wudl, Perovskite-related hybrid noble metal iodides: Formamidinium platinum iodide $[(\text{FA})_2\text{Pt}^{\text{IV}}\text{I}_6]$ and mixed-valence methylammonium gold iodide $[(\text{MA})_2\text{Au}^{\text{I}}\text{Au}^{\text{III}}\text{I}_6]$, *Inorg. Chim. Acta* [DOI:10.1016/j.ica.2017.04.060] & [UC-eScholarship]

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297. L. Devys, G. Dantelle, G. Laurita, E. Homeyer, I. Gautier-Luneau, C. Dujardin, R. Seshadri, and T. Gacoin, Ce³⁺-doped Gd₃Sc₂Al₃O₁₂ as an alternative yellow phosphor for warm white light generation, *J. Lumin.* **190** (2017) 62–68. [DOI:10.1016/j.jlumin.2017.05.035] & [UC-eScholarship]
296. L. Lamontagne, M. Knight, G. Laurita, H. Yusuf, J. Hu, R. Seshadri, and K. Page, The role of structural and compositional heterogeneities in the insulator-to-metal transition in hole-doped APd₃O₄ (A = Ca, Sr), *Inorg. Chem.* **56** (2017) 5158–5164. [DOI: 10.1021/acs.inorgchem.7b00307] & [UC-eScholarship]
295. N. George, J. Brgoch, A. Pell, C. Cozzan, A. Jaffe, G. Dantelle, A. Llobet, G. Pintacuda, R. Seshadri, and B. Chmelka, Correlating local compositions and structures with the macroscopic optical properties of Ce³⁺-doped CaSc₂O₄, an efficient green-emitting phosphor, *Chem. Mater.* **29** (2017) 3538–3546. [DOI: 10.1021/acs.chemmater.6b0539] & [UC-eScholarship]
294. M. M. Butala, M. Mayo, V. V. T. Doan-Nguyen, M. A. Lumley, C. Göbel, K. M. Wiaderek, O. J. Borkiewicz, K. W. Chapman, P. J. Chupas, M. Balasubramanian, G. Laurita, S. Britto, A. J. Morris, C. P. Grey, and R. Seshadri, Local structure evolution and modes of charge storage in secondary Li–FeS₂ cells, *Chem. Mater.* **29** (2017) 3070–3082. [DOI: 10.1021/acs.chemmater.7b00070] & [UC-eScholarship]
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291. A.-M. Zieschang, J. Bocarsly, M. Duerrschnabel, L. Molina-Luna, H.-J. Kleebe, R. Seshadri, and B. Albert, Magnetically pure nanoscale iron nitride from liquid ammonia, ε-Fe₃N, *Chem. Mater.* **29** (2017) 621–628. [DOI: 10.1021/acs.chemmater.6b04088] & [UC-eScholarship]
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