

Present Position: Professor of Mineralogy
Option Representative for Geochemistry
Division of Geological and Planetary Sciences
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Residence: Pasadena, California

Birthdate: August 3, 1944, LaCrosse, Wisconsin

Education: B.S. (Chemistry and Mathematics), Wisconsin State University, Eau Claire, 1966,
Summa cum Laude
Ph.D. (Chemistry), California Institute of Technology, Pasadena, 1971

Experience: California Institute of Technology
Division of Geological and Planetary Sciences

- a) 1971 Instructor in Mineralogy
- b) 1971-1974 Assistant Professor of Mineralogy and Chemistry
- c) 1974-1977 Assistant Professor of Mineralogy
- d) 1977-1984 Associate Professor of Mineralogy
- e) 1984-2008 Professor of Mineralogy
- f) 2008-2015 Eleanor and John R. McMillan Professor of Mineralogy
- e) 2015- Professor of Mineralogy

Principal Research Interests:

- a) Spectroscopic studies of minerals.
These studies include problems relating to the origin of color phenomena in minerals; site ordering in crystals; pleochroism; metal ions in distorted sites; analytical applications.
- b) The role of low concentrations of water and hydroxide in nominally anhydrous solids.
Analytical methods for OH analysis, mode of incorporation, role of OH in modifying physical and chemical properties, and its relationship to conditions of formation in the natural environment.
- c) Long term radiation damage effects in minerals from background levels of natural radiation.
The effects of high level ionizing radiation on minerals.
- d) X-ray amorphous minerals.
These studies have involved the physical chemical study of bioinorganic hard parts of marine organisms and products of terrestrial surface weathering, and metamict minerals.

Memberships: American Geophysical Union
Mineralogical Society of America
Mineralogical Society of Southern California

Professional and Editorial Positions

- 2019- Nominating Committee for Officers, Mineralogical Society of America
- 2014- Associate Editor, Journal of Gemmology
- 2010- Research Advisory Committee, Gemological Institute of America, Carlsbad, CA.
- 2004- Research Associate in Mineral Sciences, Natural History Museum of Los Angeles County
- 2002-05 Nominating Committee for Officers, Mineralogical Society of America
- 2000- Research Associate, Department of Mineral Sciences, American Museum of Natural History, New York, NY.
- 1996-98 Award Committee, Mineralogical Society of America
- 1996 Visiting Professor, University of Salzburg
- 1995-98 Outreach Committee, Mineralogical Society of America.
- 1995-07 Board of Governors, Gemological Institute of America, Carlsbad, CA.
- 1994-97 Nominating Committee for Officers, Mineralogical Society of America.
- 1992-94 Chair, Nominating Committee for Fellows, Mineralogical Society of America.
- 1992-94 Roebling Medal Committee, Mineralogical Society of America.
- 1989-93 Chair, Lecture Committee, Mineralogical Society of America.
- 1988-91 Basic Sciences Exhibit Advisory Committee, California Museum of Science and Industry
- 1988-91 Research Associate, Department of Mineral Sciences, American Museum of Natural History, New York, NY.
- 1988 Candidate for Councilor, Mineralogical Society of America.
- 1985-86 Co-convenor, Symposium on Garnet Mineralogy for the 1986 International Mineralogical Association Meeting, Stanford, CA.
- 1985 Candidate for Councilor, Mineralogical Society of America.
- 1984-87 Co-chairman, 1987 Gordon Conference on Inorganic Geochemistry.
- 1984-92 Research Advisory Committee, Gemological Institute of America, Carlsbad, CA.
- 1983- Editorial Review Board, Gems and Gemology
- 1982-85 Associate Editor, The American Mineralogist.
- 1981 Publications Committee, Mineralogical Society of America.
- 1979-82 Committee on Geological and Materials Sciences, National Research Council, National Academy of Sciences, Washington, DC.
- 1979 Nominating Committee, Mineralogical Society of America.

Honors

- 2014 The Lifetime Excellence Award, University of Wisconsin - Eau Claire
- 2005 The Friedrich-Becke Medal, Österreichische Mineralogische Gesellschaft
- 2004 The Richard P. Feynman Prize for Excellence in Teaching, California Institute of Technology
- 2001 The Dana Medal, Mineralogical Society of America
- 1999 Honorary Awardee, American Federation Scholarship Foundation and the California Federation of Mineralogical Societies
- 1997 Donnay Lecturer, Carnegie Institution of Washington
- 1995 The Teaching Excellence & Dedication award, Graduate Students Council, California Institute of Technology
- 1995 Weeks Lecturer, Univ. Wisconsin, Madison
- 1994 Edwin Allday Lecturer, Univ. Texas, Austin
- 1993-94 Distinguished Lecturer, Mineralogical Society of America.
- 1987 Alumni Distinguished Service Award, University of Wisconsin - Eau Claire
- 1980 Fellow, Mineralogical Society of America
- 1966-70 NSF Graduate Fellowship

PUBLICATIONS

Submitted for Publication

- Biswas S, Whitney WS, Grajower MY, Watanabe K, Taniguchi T, Bechtel HA, Rossman GR, Atwater HA (2020) Tunable intraband optical conductivity and polarization-dependent epsilon-near-zero behavior in black phosphorus. *Science Advances*.
- Gaft M, Waychunas G, Rossman G, Nagli L, Panczer G, Cheskis D, Raichlin Y (2020) Red photoluminescence and purple color of naturally irradiated fluorite. *Physics and Chemistry of Minerals*. submitted
- Ma C, Beckett JR, Tissot F, Rossman GR (2019) New minerals in fluffy type A inclusions from Allende and clues to processes in the early solar system. Part I: Paqueite, $\text{Ca}_3\text{TiSi}_2(\text{Al,Ti,Si})_3\text{O}_{14}$, and burnettite, CaVAISiO_6 . *American Mineralogist*.
- Maderazzo M, Hughes JM, Dyar MD, Rossman GR, Ackley B, Sklute E, Lupulescu M, Chiarenzelli J (2019) The atomic arrangement of vonsenite at 295, 100, and 90 K. *American Mineralogist*.

Accepted for Publication

- Hofmann AE, Jurewicz AJG, Woolum DS, Ma C, Rossman GR, Paque JM, Guan Y, Burnett DS, (2019) Electron microprobe analysis of Al in olivine: Applications to solar wind, pallasites, and trace element analyses. *Geostandards and Geoanalytical Research*.
- Kampf AR, Housley RM, Mills SJ, Rossman GR, Marty J (2020) Hagstromite, $\text{Pb}_8\text{Cu}^{2+}(\text{Te}^{6+}\text{O}_6)_2(\text{CO}_3)\text{Cl}_4$, a new lead–tellurium oxysalt mineral from Otto Mountain, California. *Mineralogical Magazine*.

Published

- Chen YC, Lin WH, Tseng WS, Chen CC, Rossman GR, Chen CD, Wu YS, Yeh NC (2020) Direct growth of mm-size twisted bilayer graphene by plasma-enhanced chemical vapor deposition. *Carbon* 156, 212-224.
- Geiger CA, Rossman GR (2020) Micro- and Nano-Size Clusters in Calcium Silicate Garnet: Part II. Mineralogical, Petrological and Geochemical Aspects. *American Mineralogist* 105, 468-478.
- Geiger CA, Rossman GR (2020) Micro- and Nano-Size Hydrogrossular-Like Clusters in Pyrope Crystals from the High-Pressure Dora Maira Massif, western Alps. *Contributions to Mineralogy and Petrology* 175:57. <https://doi.org/10.1007/s00410-020-01693-1>
- Geiger CA, Rossman GR (2020) Nano-Size Hydrogarnet Clusters and Proton Ordering in Calcium Silicate Garnet: Part I. The Quest to Understand the Nature of “Water” in Garnet Continues. *American Mineralogist* 105, 455-467.
- Kampf AR, Housley RM, Rossman GR, Yang H, Downs RT (2020) Adanite, a new lead-tellurite-sulfate mineral, from the North Star mine, Tintic, Utah, and Tombstone, Arizona, U.S.A. *Canadian Mineralogist* 58, 403-410.
- Krot AN, Nagashima K, Rossman GR (2020) Machiite, $\text{Al}_2\text{Ti}_3\text{O}_9$, a new oxide mineral from the Murchison carbonaceous chondrite: A new ultrarefractory phase from the solar nebula. *American Mineralogist* 105, 239-243.
- Kurtz DA, Rossman GR, Hunter BM (2020) The nature of the Mn(III) Color Centers in Elbaite Tourmalines. *Inorganic Chemistry* 59, 9618-9626.
- Lin WH, Tseng WS, Went CM, Teague ML, Rossman GR, Atwater HA, Yeh NC (2019) Nearly 90% circularly polarized emission in monolayer WS_2 single crystals by chemical vapor deposition (CVD), *ACS Nano* 14, 1350-1359 - DOI:10.1021/acsnano.9b05550
- Ma C, Krot AN, Beckett JR, Nagashima K, Tschauner O, Rossman GR, Simon SB, Bishoff A (2020) Warkite, $\text{Ca}_2\text{Sc}_6\text{Al}_6\text{O}_{20}$, a new mineral in carbonaceous chondrites and a key-stone phase in ultra-refractory inclusions from the solar system. *Geochemica Cosmochemica Acta* 277, 52-82.
- Rainoldi AL, Rossman GR, Di Martino L, Oreiza A (2020) Pink Amethyst from the El Choique mine, Patagonia Argentina. *Mineralogical Record* 51, 293-303.

- Rossman GR, Ehlmann BL (2020) Electronic spectra of minerals in the visible and near-infrared regions. In: Remote Sensing, J Bishop, JR Bell and JE Moersch editors. Cambridge University Press. ISBN: 978-1-107-18620-0
- Chen YC, Lin WH, Tseng WS, Chen CC, Rossman GR, Chen CD, Wu YS, Yeh NC (2019) Direct growth of mm-size twisted bilayer graphene by plasma-enhanced chemical vapor deposition. *Carbon* 156, 212-224.
- Ertl A, Rakovan J, Hughes JM, Bernhardt HJ, Rossman GR (2019) Vanadium-rich muscovite from Austria: crystal structure, chemical analysis, and spectroscopic investigations. *Canadian Mineralogist* 57, 383-389.
- Ertl A, Topa D, Giester G, Rossman GR, Tillmanns E, Konzett J (2019) Detailed characterization of a Sr-rich, high-pressure tourmaline from the Kreuzeck Mountains, Eastern Alps, Austria. *European Journal of Mineralogy* 31, 791-798.
- Kampf AR, Cooper MA, Rossman GR, Nash BP, Hawthorne FC, Marty J (2019) Davidbrownite-(NH₄), (NH₄,K)₅(V⁴⁺O)₂(C₂O₄)[PO_{2.75}(OH)_{1.25}]₄·3H₂O, a new phosphate-oxalate mineral from the Rowley mine, Arizona, USA, *Mineralogical Magazine* 83, 869-877. DOI: <https://doi.org/10.1180/mgm.2019.56>
- Laurs BM, Rossman GR (2019) Dark blue beryl from Pakistan. *The Journal of Gemmology* 36, 583-584.
- Laurs GM, Williams C, Williams B, White J, Rossman GR (2019) Yellowish Green Enstatite (and Star Enstatite) from Tanzania. *Journal of Gemmology* 36, 691-693.
- Mosenfelder JL, von der Handt A, Furi E, Dalou C, Hervig RL, Rossman GR, Hirschmann MM (2019) Nitrogen incorporation in silicates and metals: results from SIMS, EPMA, FTIR, and laser-extraction mass spectrometry. *American Mineralogist* 104, 31-46.
- Palke AC, Sun A, Renfro N, Henling LM, Ma C, Rossman GR, Thu K, Myo N, Wongrawange P, Weeramonkhonlert V (2019) Johnkoivu54laite: A new gem mineral. *Gems & Gemology* 55, 454-455
- Rossman GR (2019) Colors in Tourmaline. *Mineral Monograph* No. 20, p29-33.
- Sherrot MC, Whitney WS, Jariwala D, Iswas S, Went C, Wong J, Rossman GR, Atwater HA (2019) Anisotropic Quantum Well Electro-Optics in Few-Layer Black Phosphorus. *Nano Letters* 19, 269-276. DOI:10.1021/acs.nanolett.8b03876
- Calvert G, Swinder S, Ruta F, Rossman GR, Feigelson RS (2018) Determination of the crystallographic orientation of SrI₂ crystals. *Journal of Crystal Growth* 498, 263-268.
- Ehlmann BL, Hodyss RP, Bristow TF, Rossman GR, Ammannito E, De Sanetis MC, Raymond CA (2018) Ambient and cold-temperature infrared spectra and XRD patterns of ammoniated phyllosilicates and carbonaceous chondrite meteorites relevant to Ceres and other solar system bodies. *Meteoritics and Planetary Sciences* 53, 1884-1901. doi: 10.1111/maps.13103
- Evylukhin E, Kim E, Cifigu P, Goldberger D, Schyck S, Harris B, Torres S, Rossman GR, Pravica M (2018). Synthesis of a Novel Strontium-based Wide-Bandgap Semiconductor Via X-ray Photochemistry at Extreme Conditions. *Journal of Materials Chemistry C* 6, 12473-12478.
- Geiger CA, Dachs E, Vielreicher N, Rossman GR (2018) Heat capacity and entropy behavior of andradite: A multi-sample and -methodological investigation. *European Journal of Mineralogy* 30, 681-694.
- Geiger CA, Rossman GR (2018) IR spectroscopy and OH in silicate garnet: the long quest to document the hydrogarnet substitution. *American Mineralogist* 103, 364-393.
- Hunter BM, Müller AM, Rossman GR, Hill MG, Winkler JR, Gray HB (2018) Trapping an Iron(VI) Water-Splitting Intermediate in Nonaqueous Media. *Joule* 2, 747-763.
- Kampf AR, Housley RM, Rossman GR (2018) Pararaisaite, the dimorph of raisaite, from the North Star Mine, Tintic, Utah, U.S.A. *Canadian Mineralogist* 56, 811-820. DOI: 10.3749/canmin.1800044.
- Kampf AR, Housley RM, Rossman GR, Marty J, Chorazewicz M (2018) Bodieite, Bi³⁺₂(Te⁴⁺O₃)₂(SO₄), from the Tintic District, Utah, and the Masonic District, California, U.S.A. *Canadian Mineralogist* 56, 763-772. DOI: 10.3749/canmin.1800046.
- Kampf AR, Rossman GR, Ma C, Belmonte D, Biagioni C, Castellaro F, Chiappino L (2018) : Ramazzoite, [Mg₈Cu₁₂(PO₄)(CO₃)₄(OH)₂₄(H₂O)₂₀][(H_{0.33}SO₄)₃(H₂O)₃₆], the first mineral with a polyoxometalate cation. *European Journal of Mineralogy* 30, 827-834. DOI: 10.1127/ejm/2018/0030-2748.
- Laurs BM, Rossman GR (2018) Grape-like 'Manakarra' quartz from Sulawesi, Indonesia. *Journal of Gemmology* 36, 101-102.
- Laurs BM, Rossman GR (2018) Titanite (sphene) from Zimbabwe. *Journal of Gemmology* 36, 201-202.

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- Ma C, Tschauner O, Beckett JR, Rossman GR, Prescher C, Prakapenka VB, Bechtel HA, Macdowell A (2018) Liebermannite, KAlSi_3O_8 , a new shock-metamorphic, high-pressure mineral from Zagami Martian meteorite. *Meteoritics & Planetary Science*, 53, 50-61. DOI: 10.1111/maps.13000
- Tschauner O, Huang S, Greenberg E, Ma C, Rossman G, Shen AH, Bechtel H, Chen B, Zhang D, Dera P, Mewville M, Lanzirotti A, Kait K (2018) Ice-VII inclusions in diamonds -Evidence for water-saturated regions in the mantle transition zone. *Science* 359, 1136-1139. DOI: 10.1126/science.aao3030
- Williams C, Williams B, Kelley P, Rossman GR, Laurs BM (2018) Cr-bearing green spodumene from northern Nigeria. *Journal of Gemmology* 35, 200-201.
- Gaillou E, Rossman GR (2017) On the beauty of defects. In: *Diamond - The Ultimate Gemstone*. J Harris editor. Mineral Monograph 19, 40-53.
- Hui H, Guan Y, Chen Y, Peslier AH, Zhang Y, Liu Y, Flemming RL, Rossman GR, Eiler JM, Neal CR, Osinski GR (2017) A heterogeneous lunar interior for hydrogen isotopes as revealed by the lunar highlands samples. *Earth and Planetary Science Letters* 473, 14-23.
- Kampf AR, Rossman GR, Ma C, Willmans PA (2017) Kyawthuite, $\text{Bi}^{3+}\text{Sb}^{5+}\text{O}_4$, a new gem mineral from Mogok, Burma (Myanmar). *Mineralogical Magazine* 81, 477-484.
- Pieczka A, Hawthorne FC, Ma C, Rossman GR, Szełęg E, Szuszkiewicz A, Turniak K, Nejbert K, Ilnicki SS (2017) Żabińskiite, ideally $\text{Ca}[\text{Al}_{0.5}(\text{Ta},\text{Nb})_{0.5}](\text{SiO}_4)\text{O}$, a new mineral of the titanite group from the Piława Górna anatectic pegmatite, southwestern Poland. *Mineralogical Magazine* 81, 591-610.
- Rossman GR (2017) Coloration of green dravite from the Commander Mine, Tanzania. *The Journal of Gemmology* 35, 575-575.
- Solomatova NV, Jackson JM, Sturhahn W, Rossman GR, Roskosz M (2017) Electronic environments of ferrous iron in rhyolitic and basaltic glasses at high pressure. *Journal of Geophysical Research: Solid Earth* 122, 306-6322; doi: 10.1002/2017JB014363
- Westhues A, Hanchar JM, Voisey CR, Whitehouse MJ, Rossman GR, Wirth R (2017) Tracing the fluid evolution of the Kiruna iron oxide apatite deposits using zircon, monazite, and whole rock trace elements and isotopic studies. *Chemical Geology* 466, 303-322. doi.org/10.1016/j.chemgeo.2017.06.020
- Whitney WS, Sherrott MC, Jariwala D, Lin WH, Bechtel HA, Rossman GR, Atwater HA (2017) Field Effect Optoelectronic Modulation of Quantum-Confined Carriers in Black Phosphorus. *Nano Letters* 17, 78-84.
- Blacksberg J, Alerstam E, Maruyama Y, Cochrane C, Rossman GR (2016) A Miniaturized Time-Resolved Raman Spectrometer for Planetary Science Based on a Fast Single Photon Avalanche Diode (SPAD) Detector Array. *Applied Optics* 55, 739-748.
- Ertl A, Kolitsch U, Dyar MD, Meyer HP, Rossman GR, Henry DU, Prem M, Ludwig T, Nasdala L, Lengauer CL, Tillmanns E (2016) Fluor-schorl, a new member of the tourmaline supergroup and additional data about schorl from the area of the cotypte localities. *European Journal of Mineralogy* 28, 163-167.
- Fitzgerald S, Leavens PB, Yap GPA, Rose T, Rossman GR (2016) Vesuvianite from Pajsberg, Norway, and the role of Be in the vesuvianite structure. *Canadian Mineralogist* 54, 1525-1537.
- Kampf AR, Cooper MA, Mills SJ, Housley RM, Rossman GR (2016) Lead-tellurium oxysalts from Otto Mountain near Baker, California: XII. Andychrysite, $\text{PbCu}^{2+}\text{Te}^{6+}\text{O}_5(\text{H}_2\text{O})$, a new mineral with HCP stair-step layers. *Mineralogical Magazine* 80, 1055-1065. DOI: <http://dx.doi.org/10.1180/minmag.2016.080.042>
- Kampf AR, Housley RM, Rossman GR (2016) Wayneburnhamite, $\text{Pb}_9\text{Ca}_6(\text{Si}_2\text{O}_7)_3(\text{SiO}_4)_3$, an apatite polysome – the Mn-free analogue of ganomalite from Crestmore, California. *American Mineralogist* 101, 2423-2429.
- Ma C, Tschauner O, Beckett JR, Liu Y, Rossman GR, Stanislav V, Sinogeikin S, Smith J, Taylor LA (2016) Ahrens site, $\gamma\text{-Fe}_2\text{SiO}_4$, a new shock-metamorphic mineral from the Tissint meteorite - implications for the Tissint shock event on Mars. *Geochimica et Cosmochimica Acta* 184, 240-256.

- Perrin J, Vielzeuf D, Laporte D, Ricolleau A, Rossman GR, Floquet N (2016) Raman characterization of synthetic Mg calcites. *American Mineralogist* 101, 2525-2538.
- Rossman GR, Ma C, Laurs BM (2016) Yellow dravite from Tanzania. *Journal of Gemmology* 35, 190-192.
- Taylor LA, Logvinova A, Howarth GH, Liu Y, Peslier A, Rossman GR, Guan Y, Chen Y, Sobolev NV (2016) Low water contents in diamond mineral inclusions: Proto-genetic origin in a dry cratonic lithosphere. *Earth and Planetary Science Letters* 433, 125-132.
- Zwann JC, Pezzotta F, Rossman GR (2016) Orange-red to yellowish brown cordierite from Madagascar. *The Journal of Gemmology* 35, 8-9.
- Chemtob SM, Rossman GR, Young ED, Ziegler K, Moynier F, Eiler JM, Hurowitz J (2015) Si isotope systematics of acidic weathering of fresh basalts, Kilauea Volcano, Hawai'i. *Geochimica et Cosmochimica Acta* 169, 63-81.
- Chen Y, Liu Y, Guan Y, Eiler J, Ma C, Rossman GR, Taylor LA (2015). Evidence in Tissint for recent subsurface water on Mars. *Earth and Planetary Science Letters* 425, 55-63.
- Ma C, Tschanner O, Beckett JR, Liu Y, Rossman GR, Zuravlev K, Prakapenka V, Dera P, Taylor LA (2015) Tissintite, $(\text{Ca}, \text{Na}, \square)\text{AlSi}_2\text{O}_6$, a highly-defective, shock-induced, high-pressure clinopyroxene in the Tissint martian meteorite. *Earth and Planetary Science Letters*. doi: 10.1016/j.epsl.2015.03.057.
- Mosenfelder JD, Rossman GR, Johnson EA (2015) Hydrous species in feldspars: a reassessment based on FTIR and SIMS. *American Mineralogist* 100, 1209-1221.
- Varghese JO, Agbo P, Sutherland AM, Brar VW, Rossman GR, Gray HB, Heath JR (2015) The influence of water on the optical properties of single-layer molybdenum disulfide. *Advanced Materials* 2015, DOI: 10.1002/adma.201500555.
- Williams C, Williams B, Rossman GR, Laurs BM, Hoover D (2015) Purple garnet from East Africa. *Journal of Gemmology* 34, 656-658.
- Chemtob SM, Rossman GR (2014) Timescales and mechanisms of formation of amorphous silica coatings on fresh basalts at Kilauea Volcano, Hawaii. *Journal of Volcanology and Geothermal Research* 286, 41-54.
- Gaillou E, Rossman GR (2014) Color in natural diamonds: the beauty of defects. *Rocks & Minerals* 89, 66-74.
- Kampf AR, Adams PM, Housley RM, Rossman GR (2014) Fluorowardite, $\text{NaAl}_3(\text{PO}_4)_2\text{F}_2(\text{OH})_2(\text{H}_2\text{O})_2$, the fluorine analogue of wardite from the Silver Coin mine, Valmy, Nevada. *American Mineralogist* 99, 804-810.
- Kampf AR, Hughes JM, Nash BP, Wright SE, Rossman GR, Marty J (2014) Ophirite, $\text{Ca}_2\text{Mg}_4[\text{Zn}_2\text{Mn}^{3+}_2(\text{H}_2\text{O})_2(\text{Fe}^{3+}\text{W}_9\text{O}_{34})_2]\cdot 46\text{H}_2\text{O}$, a new mineral with a heteropolytungstate tri-lacunary Keggin anion. *American Mineralogist* 99, 1045-1051.
- Lan T, Li CW, Niedziela JL, Smith H, Abernathy DL, Rossman GR, Fultz B (2014) Anharmonic lattice dynamics of cuprite Ag_2O studied by inelastic neutron scattering and first principles molecular dynamics simulations. *Physics Review B* 89, 054306 (1-10).
- Ma C, Beckett JR, Rossman GR (2014) Monipite, MoNiP , a new phosphide mineral in a Ca-Al-rich inclusion from the Allende meteorite. *American Mineralogist* 99, 198-205.
- Ma C, Beckett JR, Rossman GR (2014) Allendeite ($\text{Sc}_4\text{Zr}_3\text{O}_{12}$) and hexamolybdenum ($\text{Mo}, \text{Ru}, \text{Fe}$), two new minerals from an ultrarefractory inclusion from the Allende meteorite. *American Mineralogist* 99, 654-666.
- Mills SJ, Kampf AR, Christy AG, Housley RM, Rossman GR, Reynolds RE, Marty J (2014) Bluebellite and mojaveite, two new minerals from the central Mojave Desert, California, USA. *Mineralogical Magazine* 78, 1325-1340.
- Rossman GR (2014) Optical Spectroscopy. *Reviews in Mineralogy*, vol 78. *Spectroscopy Methods in Mineralogy and Material Sciences*. Mineralogical Society of America, Henderson GS, Neuville DR, Downs RT, eds, p371-398.
- Rossman GR, Laurs BM (2014) Orange lizardite from South Africa. *Journal of Gemmology* 34, 98-99.
- Thomas T, Rossman GR, Sandstrom M (2014) Device and Method of Optically Orienting Biaxial Crystals for Sample Preparation. *Reviews of Scientific Instruments*, 85, 093105.

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- Gaft M, Nagli L, Panczer G, Rossman GR (2013) Laser-induced time-resolved luminescence of Cr³⁺ in kyanite. *Journal of Spectroscopy and Dynamics* 3, 22, p1-10.
- Gaillou E, Rossman GR (2013) Price versus rarity of fancy-colored diamonds: does it make sense? *InColor* 24, 20-28.
- Gaillou E, Rossman GR (2013) De la couleur des défauts: couleur des diamants naturels. *Revue de l'Association Française de Gemmologie* 185, 42-48.
- Johnson EA, Rossman GR (2013) The diffusion behavior of hydrogen in plagioclase feldspar at 800-1000°C: Implications for OH re-equilibration in volcanic phenocrysts. *American Mineralogist* 98, 1779-1787.
- Kampf AR, Mills SJ, Housley RM, Rossman GR, Marty J, Thorne B (2013) Lead–tellurium oxysalts from Otto Mountain near Baker, California: X. Bairdite, Pb₂Cu²⁺₄Te⁶⁺₂O₁₀(OH)₂(SO₄)·H₂O, a new mineral with thick HCP layers. *American Mineralogist* 98, 1315-1321.
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- Kampf AR, Mills SJ, Housley RM, Rossman GR, Nash BP, Dini M, Jenkins RA (2013) Joteite, Ca₂CuAl[AsO₄][AsO₃(OH)]₂(OH)₂·5H₂O, a new arsenate with a sheet structure and unconnected acid arsenate groups. *Mineralogical Magazine* 77, 2811-2823.
- Kampf AR, Mills SJ, Nash BP, Housley RM, Rossman GR, Dini M (2013) Camaronesite, [Fe³⁺(H₂O)₂(PO₃OH)]₂(SO₄)·1-2H₂O, a new phosphate-sulfate from the Camarones Valley, Chile, structurally related to taranakite. *Mineralogical Magazine* 77, 453-465.
- Ma C, Tschauner O, Beckett JR, Rossman GR, Liu W (2013) Kangite, (Sc,Ti,Al,Zr,Mg,Ca,□)₂O₃, a new ultra-refractory scandia mineral from the Allende meteorite: Synchrotron micro-Laue diffraction and electron backscatter diffraction. *American Mineralogist* 98, 870-878.
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- Mosenfelder JD, Rossman GR (2013) Analysis of hydrogen and fluorine in pyroxenes; Part II. Clinopyroxene. *American Mineralogist* 98, 1042-1054.
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