

Curriculum Vitae HANS-RUDOLF WENK

9/15/2025

EDUCATION:

1961-63 Undergraduate studies at the University of Basel
 1963-65 Graduate studies in crystallography at the University of Zurich
 1965 Ph.D. Thesis on X-ray petrofabric analysis under Professor F. Laves

PROFESSIONAL EXPERIENCE:

1965-66 Research Associate, Department of Crystallography, ETH, Zurich (F. Laves) 1966-
 Co-worker, Swiss Geological Survey
 1966-67 Research Geophysicist, Institute of Geophysics, University of California at Los
 Angeles (D.T. Griggs and J.M. Christie)
 1967-70 Assistant Professor of Geology, Department of Geology and Geophysics, Berkeley
 1970-74 Associate Professor of Geology, Department of Geology and Geophysics, Berkeley
 1971-72 Miller Research Professor
 1974- Professor of Geology, Department of Geology and Geophysics, Berkeley
 1974-75 Gastprofessor, Institut f. Kristallographie, University of Frankfurt
 1979-80 Professeur Invité, Laboratoire de Métallurgie Structurale, Université de Metz, France
 1979- Associate Faculty Scientist, Lawrence Berkeley Laboratory
 1981; 1983 Humboldt Research Fellowship, Leave at University of Kiel
 1985-2000 Collaborator with Center for Materials Science, LANL
 1986 Visiting professor, Nanjing University, PRC
 1987-1988 Senior U.S. Scientist Award, Alexander von Humboldt-Stiftung. Technical
 University Hamburg-Harburg, Germany
 1989 Professeur Invité, Laboratoire de Physique et Mécanique des Matériaux, Université de
 Metz, France.
 1991 Visiting professor, Nanjing University, PRC
 1991-1992 Berndt Matthias Scholar, Center for Materials Science, LANL
 1991 Professeur Invité, Laboratoire de Physique et Mécanique des Matériaux, Université de
 Metz, France
 1994 Visiting Professor, University of Perugia, Italy
 1994-1995 Chercheur Invité, University of Grenoble, France and Laboratoire de
 Crystallographie, CNRS
 1995 Invited scientist, Center for Materials Science, LANL
 1996 Senior Research Fellow, Japanese Soc. Promotion of Science, University of Hiroshima
 1998 Invited Scholar, UC Campus-Laboratory Program, CMS, LANL
 1998 Principal Investigator, HIPPO, UC Materials Research Neutron Diffractometer at
 LANSCE
 2000 Visiting Professor, University of Metz, France

- 2001 Visiting Scientist, European Synchrotron Research Facility, Grenoble
- 2001 Re-invitation as Senior U.S. Scientist, Alexander von Humboldt-Stiftung. Bayreuth, Germany
- 2002 Visiting Professor, Dip. Ingegneria dei Materiali, Universita, Trento, Italy
- 2005 Visiting Professor, GeoForschungsZentrum Potsdam, Germany
- 2006-2009 Department Chair and Garniss Curtis Professor of Geology
- 2008-2011 Executive Committee, LANSCE User Group
- 2009 Visiting Professor, Technical University of Ankara
- 2009- Professor of the Graduate School
- 2015 Visiting Professor, Dip. Ingegneria dei Materiali, Universita, Trento, Italy
- 2019 Visiting Professor and Fulbright Fellow. University of Salamanca, Spain

HONORS

- Fellow Mineralogical Society of America, 1980
- Senior U.S. Scientist Award, Alexander von Humboldt-Stiftung, 1987
- Berndt Matthias Scholar, Los Alamos National Laboratory, 1991
- Senior Research Fellow, Japanese Soc. Promotion of Science, 1996
- Fellow American Geophysical Union, 2001
- Wasson Research Medal, American Concrete Institute, 2003
- Abraham Gottlob Werner Medaille, Deutsche Mineralogische Gesellschaft, 2010
- Fulbright Fellow, University of Salamanca, Spain, 2019

PUBLICATIONS

Over 470 papers in international journals and 5 books.

PH.D. STUDENTS

- G. Nord (1971)
- H. Ulbrich (1973)
- J. Shore (1975)
- R. Reeder (1983)
- B. Erskine (1986)
- D. Ague (1987)
- T. Takeshita (1987)
- L. Goodwin (1988)
- W. Hirt (1991)
- F. Heidelberg (1994)
- K. Bennett (1994)

S. Cady (1994)
 D. Janney (1996)
 Y. Xie (2002)
 K. Shomglin (2004)
 J. Pehl (2005)
 L. Miyagi (2009)
 W. Kanitpanyacharoen (2012)
 P. Kaercher (2014)
 E. Zepeda-Alarcon (2017)
 P. Viseshchitra (2021)
 B. C. Chandler (2021)
 Michelle Devoe (2024)

CURRENT GRADUATE STUDENT

Amartya Kattemalavadi

VISITING SCIENTISTS

Jingyi Huang (Beijing, China) Roman Vasin (Dubna, Russia)

MAIN RESEARCH SUPPORT

NSF: Anisotropy Changes during Deformation and Phase Transformations. #EAR1343908 NSF:
 The origin of anisotropy in the lowermost mantle (with B. Romanowicz). #EAR1464014
 DOE-BES: Anisotropy and residual stress in sedimentary rocks: Comparison of microstructural
 data with experiments. #DE-FG02-ER15637

CURRENT TEACHING: EPS298: Directed group study for graduate students

Publications HANS-RUDOLF WENK

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Books

- H.-R. Wenk and E. H. Wenk (2024). *Discovering the Unique Geology of the Bergell Alps*. Springer Verlag, 169pp.
- H.-R. Wenk and A. Bulakh (2016). *Minerals. Their Constitution and Origin*. 2nd Edn. Cambridge University Press, 621pp. ISBN 978-1-107-10626-0
- H.-R. Wenk Ed. (2006). *Neutron Scattering in Earth Sciences, Reviews in Mineralogy and Geochemistry 63*, Mineral. Soc. America, 620pp.
- H. Liu, H.-R. Wenk, T.S. Duffy Eds. (2006). *Rheology and Elasticity Studies at Ultra-high Pressures and Temperatures. Special Issue, J. Physics, Condensed Matter 18*, S921-1103.
- H.-R. Wenk and A. Bulakh (2004). *Minerals. Their Constitution and Origin*. Cambridge University Press, 646pp. (Tenth printing 2014).
- D. Mainprice, T. Popp, Y. Gueguen, E. Huenges, E. Rutter, H.-R Wenk and L. Burlini Eds. (2003). *Physical Properties of Rocks and Other Geomaterials. A Special Volume to honour Professor H. Kern. Tectonophysics, Volume 370*.
- S.-Y. Karato and H.-R. Wenk Eds. (2002). *Plastic Deformation of Minerals and Rocks, Reviews in Mineralogy and Geochemistry, Mineral. Soc. America*, 420pp.
- U.F. Kocks, C. Tomé and H.-R. Wenk (2000). *Texture and Anisotropy. Preferred Orientations in Polycrystals and Their Effect on Materials Properties*. 2nd paperback edition. Cambridge University Press, 676pp. [Download PDF](#)
- H.-R. Wenk, P. Dawson, C. Pelkie and Y. Chastel (1999). *Texturing of Rocks in the Earth's Mantle. A Convection Model Based on Polycrystal Plasticity*. Video. Amer. Geophys. U. [Download PDF](#)
- U.F. Kocks, C. Tomé and H.-R. Wenk (1998). *Texture and Anisotropy. Preferred Orientations in Polycrystals and Their Effect on Materials Properties*. Cambridge University Press, 676pp.
- H.-R. Wenk, Editor (1994) *Polyphase Polycrystal Plasticity. Special Issue: Materials Science and Engineering*, A175, 1-277.
- S.H. Kirby, A.G. Sylvester, J. Tullis and H.-R. Wenk, Editors (1993) *Microstructures and Rheology of Rocks and Rock-forming Minerals (John Christie Volume)*. Special Issue, J. Struct. Geol. 15, 1061-1271.
- H.-R. Wenk (1991). *Edit. Preferred Orientation in Deformed Metals and Rocks. An Introduction to Modern Texture Analysis (Chinese translation)*.
- H.-R. Wenk (1985). *Edit. Preferred Orientation in Deformed Metals and Rocks. An Introduction to Modern Texture Analysis*, Academic Press.
- H.-R. Wenk (1979). *Elektronia Mikroskopia B Mineralogii (Russian translation)*, MIR, Moscow, 541 pp.
- H.-R. Wenk Edit. (1976). *Electron Microscopy in Mineralogy*, Springer-Verlag, Berlin-Heidelberg-New York, 564 pp. [Download PDF](#)

Journal Publications

488. Huang, J., Wenk, H.-R., Devoe, M. (2025). Microstructures and anisotropy of slates from Northern China. *Minerals* 15, 979. <https://doi.org/10.3390/min15090979>. [Download PDF](#).
487. Su, Y.-T., Govindjee, S., Wenk, H.-R., Dolado, J.S., Monteiro, P.J.M. (2025). Orientation behaviors of calcium silicate hydrate nanocrystals under deviatoric stresses. A new perspective for the origin of creep in concrete (*Acta Mater.* submitted)
486. Devoe, M., Nakagawa S., Zhao Hao Z., Nobumichi Tamura N., Hans-Rudolf Wenk, H.-R., Lisabeth, H. (2025). Spontaneous Crack Healing in Calcite Revealed: Strain Evolution, Dislocation Dynamics and Surface Chemistry. (*Nature Communications*, submitted)
485. Zhu, X., Chae, S.R., McElhany, S., Liang, C., Zheng, Q., Li, J., Fondi, V., Del Ferro, S., Altieri, A.M., Lisabeth, H., Bhattacharjee, A., Fouke, B.W., Wenk, H.-R., Monteiro, P.J.M. (2025). Mineralized carbonates contribute to the millennial durability of Roman concrete (*Science Advances*, submitted)
484. Kattemalavadi, A., Devoe, M., Wenk, H.-R. (2025). Deformation of hydrous phases Egg [AlSiO₃(OH)], δ [AlO(OH)] and stishovite [Si_{1-n}H_{4n}O₂] relevant to anisotropy of the Earth's mantle. *J. Geophys. Res.* (5), e2025JB031362. 130 <https://doi.org/10.1029/2025JB031362>. [Download PDF](#).
483. Wenk, H.-R., Kattemalavadi, A., Zhang, Y., Kennedy, E.R., Borkiewicz, O. (2025). Exploring microstructures and anisotropies of serpentinites. *Contrib. Mineral. Petrol.* 180:23, <https://doi.org/10.1007/s00410-025-02209-5>. [Download PDF](#).
482. Schmitt, M.M., Savage, D.J., Yeager, J.D., Wenk, H.-R., Lutterotti, L., Vogel, S.C. (2023). Texture measurements on quartz single crystal to validate coordinate systems for neutron time-of-flight texture analysis. *J. Appl. Cryst.* 56, 1764-1775, <https://doi.org/10.1107/S1600576723009275>. [Download PDF](#).
481. Hermes, R.E., Kennett, J.P., Wenk, H.-R., Bunch, T.E., Moore, C.R., LeCompte, M.A., Kletetschka, G., A., Adedeji, V., Langworthy, K., Razink, J., Brogden, V., van Devenner, B., Perez, J.P., Polson, R., Nowell, M., West, A. (2023). Microstructures in shocked quartz: linking nuclear airbursts and meteorite impacts. *ScienceOpen, Airbursts and Cratering Impacts Vol. 1*(1). DOI: 10.14293/ACI.2023.0001. [Download PDF](#).
480. Vasin, R.N., Kunz, M., Wenk, H.-R., Zepeda-Alarcon, E. (2023). Crystallographic texture formation in Fe-9wt%Si alloy during deformation and phase transition at high pressure. *Geophys. J. Int.* 234, 790-806 [doi:10.1093/gji/ggad099]. [Download PDF](#).
479. Devoe, M., Tamura, N., Wenk, H.-R. (2023). Residual strain orientation in rolled titanium sheet determined with synchrotron X-ray microdiffraction. *J. Appl. Cryst.* 56, 135-142 [doi: 10.1107/S1600576722011311] [Download PDF](#).
478. Wenk, H.-R., Huang, J., Devoe, M., Gomez-Barreiro J., Vasin, R., Ren, Y., Barrios- Sanchez, S. (2022). Crystallographic and shape preferred orientation and anisotropy in slates from Northern Spain. *J. Struct. Geol.* 164, 104730. [doi.org/10.1016/j.jsg.2022.104730] [Download PDF](#).
477. Raju, S.V., Vasin, R.N., Godwal, B.K., Jeanloz, R., Wenk, H.-R., Saxena, S.K. (2021). Deformation of boron-doped Ni₃Al alloys at high pressures studied with synchrotron X-ray diffraction. *J. Appl. Phys.* 129, 225201 [doi:10.1063/5.0037012]. [Download PDF](#)

476. Chandler, C.B., Devoe, M., Kunz, M., Wenk, H.-R. (2021) Using multigrain crystallography to explore the microstructural evolution of the α olivine to γ ringwoodite transformation and ϵ - Mg_2SiO_4 at high pressure and temperature. *Minerals* 11(4), 424 [doi:10.3390/min11040424]. [Download PDF](#)
475. Chandler, C.B., Chen, L., Li, M., Romanowicz, B., Wenk, H.-R. (2021). Forward modeling seismic anisotropy in the lower mantle through 3-phase aggregate deformation. *G.J. Int.* 227(3), 1665-1681. [doi.org/10.1093/gji/ggab278] [Download PDF](#)
474. Chandler C.B., Bernier J.V., Diamond M., Kunz M., Wenk H.-R. (2021) Exploring microstructures in lower mantle mineral assemblages with synchrotron x-rays. *Science Adv.* 7, eabd3614. [DOI: 10.1126/sciadv.abd3614] [Download PDF](#)
473. Viseshchitra, P., Ercius, P., Monteiro, P.J.M., Scott, M., Ushizima, D., Li, J., Xu, K., Wenk, H.-R. (2021). 3D nanotomography of calcium silicate hydrates by transmission electron microscopy. *J. Am. Ceramic Soc.* 104(4), 1852-1862 [doi:10.1111/jace.17593]. [Download PDF](#)
472. Lokajicek, T., Vasin, R., Svitek, T., Petruzalek, M., Kotrly, M., Turkova, I., Onysko, R., Wenk, H.-R. (2021) Intrinsic elastic anisotropy of Westerly granite observed by ultrasound measurements, microstructural investigations, and neutron diffraction. *J. Geophys. Res. Solid Earth* 126, e2020JB020878, [doi.org/10.1029/2020JB020878]. [Download PDF](#)
471. Li, Y., Chen, K., Zhang, F., Tamura, N., Ku, C.S., Kang, H., Wenk, H.-R. (2020). XtalCAMP: a comprehensive program for the analysis and visualization of scanning Laue X-ray micro/nano-diffraction data. *J. Appl. Cryst.* 53, 1392-1403 [doi.org/10.1107/S1600576720010882]. [Download PDF](#)
470. Wenk, H.-R., Chandler, C.B., Chen, K., Li, Y., Tamura, N., Yu, R (2020). Residual lattice strain in quartzites as a potential paleo-piezometer. *Geoph. J. Int.* 222, 1363-1378 [doi:10.1093/gji/ggaa226] [Download PDF](#)
469. Wenk, H.-R., Yu, R., Cardenes, V., Lopez-Sanchez, M.A., Sintubin, M (2020). Review: Fabric and anisotropy of slates: From classical studies to new results. *J. Struct. Geol.* 138, 104066 [doi:10.1016/j.jsg.2020.104066] [Download PDF](#)
468. Kaesemer, M., Zepeda-Alarcon, E., Carson, R., Dawson, P., Wenk, H.-R. (2020). Finite element modeling of deformation response of dual phase bridgmanite/periclasite with high strength contrast. *Acta Mater.* 189, 284-298 [doi:10.1016/j.actamat.2020.02061] [Download PDF](#)
467. Kanitpanyacharoen, W., Chornkrathok, S., Morley, C.K., Wenk, H.-R. (2020). Microstructural evolution and deformation mechanisms of Khan Kho Fault, Thailand. *J. Struct. Geol.* 136 [doi:10.1016/j.jsg.2020.104055] [Download PDF](#)
466. Yue, B., Hong, F., Hirao, N., Vasin, R., Wenk, H.-R., Chen, B., Mao, H.-K. (2019). A simple variant selection in stress-driven martensitic transformation, *PNAS* 116, 14905- 14909 [doi:10.1073/pnas.1906365116] [Download PDF](#)
465. Wenk, H.R., Yu, R., Tamura, N., Bischoff, D., Hunkeler, W. (2019). Slags as evidence for copper mining above Casaccia, Val Bregaglia (Central Alps). *Minerals*, MDPI 9, 292 [doi:10.3390/min9050292] [Download PDF](#)
464. Wenk, H.R., Yu, R., Vogel, S., Vasin, R. (2019). Preferred orientation of quartz in

- metamorphic rocks from the Bergell Alps. *Minerals*, MDPI 9(5), 277
[doi:10.3390/min9050277] [Download PDF](#)
463. Wannier, M.A., Urreiztieta, M., Wenk, H.-R., Stan, C.V., Tamura, N., Yue, B. (2019). Fallout melt debris and aerodynamically-shaped glasses in beach sands of Hiroshima Bay, Japan. *Anthropocene*, 25, 100196, [doi:10.1016/j.ancene.2019.100196] [Download PDF](#)
462. Wenk, H.-R., Kanitpanyacharoen, W., Ren, Y. (2019). Slate - a new record for crystal preferred orientation. *J. Struct. Geol.* 125 (50 year special issue), 319-324, [doi:/10.1016/j.jsg.2017.12.009] [Download PDF](#)
461. Geng, G., Vasin, R.N., Li, J., Qomi, M.J.A., Yan, J., Kunz, M., Wenk, H.-R., Monteiro, P.J.M. (2018). Preferred orientation of calcium aluminosilicate hydrate induced by compression. *Cement and Concrete Research*, 113, 186-196, [doi:10.1016/j.cemconres.2018.09.002]
460. Manga, M., Voltolini, M., Wenk, H.-R. (2018). Microlite orientation in obsidian flow measured by synchrotron X-ray diffraction. *Contrib. Mineral. Petrol.* 173, 58, [doi:10.1007/s00410-018-1479-9] [Download PDF](#)
459. Mi, Z., Shieh, S.R., Kavner, A., Kiefer, B., Wenk, H.-R., Duffy, T.S. (2018). Strength study of NaCl to 56 GPa. *J. Appl. Physics* 123, 135901. [Download PDF](#)
458. Chandler, C., Yuan, K., Li, M., Cottaar, S., Romanowicz, B., Tome, C., Wenk, H.-R. (2018). A refined approach to model anisotropy in the lowermost mantle. *IOP Conference Series: Mater. Sci. Eng.* 375 012002 [Download PDF](#)
457. Minor, A., Rybacki, E., Sintubin, M., Vogel, S., Wenk, H.-R. (2018). Tracking mechanical Dauphine twin evolution with applied stress in axial compression experiments on a low- grade metamorphic rock. *J. Struct. Geol.* 112, 81-94, [doi:10.1016/j.jsg.2018.04.002] [Download PDF](#)
456. Schaebitz, M., Janssen, C., Wenk, H.-R., Wirth, R., Schuck, B., Wetzel, H.-U., Meng, X., Dresen, G. (2018). Microstructures in landslides in northwest China - Implications for creeping displacements? *J. Struct. Geol.* 106, 70-85, [doi:10.1016/j.jsg.2017.11.009]
455. Wenk, H.-R., Vasin, R. (2017). Preferred orientation patterns of phyllosilicates in surface clays. *Clays and Clay Minerals* 65-5, 329-341, [doi:10.1346/CCMN.2017.064069] [Download PDF](#)
454. Romanowicz, B., Wenk, H.-R. (2017). Anisotropy in the deep Earth. *PEPI (Review paper)*, 269, 58-90 [doi:10.1016/j.pepi.2017.05.005] [Download PDF](#)
453. Fazio, E., Punturo, R., Cirrincione, R., Kern, H., Pezzino, A., Wenk, H.-R., Goswami, S., Mamtani, M.A. (2017). Quartz preferred orientation in naturally deformed mylonitic rocks (Montalto Shear Zone - Italy): a comparison of results by different techniques, their advantages and limitations. *Int. J. Earth Sciences* 106, 2259-2278, [doi:10.1007/s00531- 016-1424-y] [Download PDF](#)
452. Jackson, M.D., Mulcahy, S.R., Chen, H., Li, Y., Li, Q., Cappelletti, P., Wenk, H.-R. (2017). Authigenic zeolite and Al-tobermorite mineral cements in Roman marine concrete. *Amer. Mineral.* 102, 1435-1450 [doi:10.2138/am-2017-5993CCBY] [Download PDF](#)
451. Wu, X., Lin, J.-F., Kaercher, P., Mao, Z., Liu, J., Prakapenka, V., Wenk, H.-R. (2017). Seismic anisotropy of the D'' Layer induced by (001) deformation of post-perovskite. *Nature Communications* 8, 14669 [doi:10.1038/ncomms14669] [Download PDF](#)

450. Vasin, R., Kern, H., Lokajicek, T., Svitek, T., Lehmann, E., Mannes, D.C., Chaouche, M., Wenk, H.-R. (2017). Elastic anisotropy of Tambo gneiss from Promontogno, Switzerland: a comparison of crystal orientation and microstructure-based modeling and experimental measurements. *Geophys. J. Int.* 209, 1-20 [doi:10.1093/gji/ggw487] [Download PDF](#)
449. Lokajicek, T., Svitek, T., Kern, H., Wenk, H.-R. (2016). Enhanced study of rock elastic anisotropy. 50th US Rock Mechanics, Geomechanics Symposium 3, 2492-2500.
448. Kaercher, P., Miyagi, L., Kanitpanyacharoen, W., Zepeda-Alarcon, E., Wang, Y., Parkinson, D., Lebensohn, R.A., De Carlo, F., Wenk, H.R. (2016). Two phase deformation of lower mantle mineral analogs. *EPSL* 456, 134-145 [doi:10.1016/j.epsl.2016.09.030] [Download PDF](#)
447. Miyagi, L., Wenk, H.-R. (2016). Texture development and slip systems in bridgmanite and bridgmanite + ferropericlasite aggregates. *Phys. Chem. Minerals* 43, 597-613 [doi:10.1007/s00269-016-0820-y] [Download PDF](#)
446. Janssen, C., Wenk, H.-R., Wirth, R., Morales, L., Kemnitz, H., Sulem, J., Dresen, G. (2016). Microstructures and their implications for faulting processes - insights from DGLab core samples from the Gulf of Corinth. *J. Struct. Geol.* 86, 62-74 [doi: 10.1016/j.jsg.2016.03.008] [Download PDF](#)
445. Chen, K., Kunz, M., Li, Y., Sintubin, M., Zepeda, E., Wenk, H.-R. (2016). Compressional residual stress in Bastogne boudins revealed by synchrotron X-ray microdiffraction. *Geoph. Research Letters* 43, 6178-6185 [doi:10.1002/2016GL069236] [Download PDF](#)
444. Allan, A.M., Clark, A.C., Vanorio, T., Kanitpanyacharoen, W., Wenk, H.-R. (2016). On the evolution of the elastic properties of organic-rich shale upon pyrolysis-induced thermal maturation. *Geophysics* 81(3), D271-D289 [doi:10.1190/geo2015-0514.1] [Download PDF](#)
443. Romanowicz, B., Cao, A., Godwal, B., Wenk, R., Ventosa, S., Jeanloz, R. (2016). Seismic anisotropy in the Earth's innermost inner core: testing structural models against mineral physics predictions. *Geoph. Research Letters* 43, 93-100 [doi:10.1002/2015GL066734] [Download PDF](#)
442. Kern, H., Lokajicek, T., Svitek, T., Wenk, H.-R. (2015). Seismic anisotropy of serpentinite from Val Malenco, Italy. *J. Geophys. Res., Solid Earth* 120, 4113-4129 [doi:10.1002/2015JB012030] [Download PDF](#)
441. Serdar, M., Meral, C., Kunz, M., Bjegovic, D., Wenk, H.-R., Monteiro, P.J.M. (2015). Spatial distribution of crystalline corrosion products formed during corrosion of stainless steel in concrete. *Cement and Concrete Research* 71, 93-105 [doi:10.1016/j.cemconres.2015.02.004] [Download PDF](#)
440. Eckert, J., Gourdon, O., Jacob, D.E., Meral, C., Monteiro, P.J.M., Vogel, S.C., Wirth, R., Wenk, H.-R. (2015). Ordering of water in opals with different microstructures. *Eur. J. Mineralogy* 27, 203-213 [doi:10.1127/ejm/2015/0027-2428] [Download PDF](#)
439. Haerlein, T., Wenk, H.-R., Debacker, T.N., Sintubin, M. (2015). Preferred mineral orientation of a chloritoid-bearing slate in relation to its magnetic fabric. *J. Struct. Geol.* 71, 125-135 [doi:10.1016/j.jsg.2014.09.013] [Download PDF](#)
438. Gomez-Barreiro, J., Wenk, H.-R., Vogel, S. (2015). Texture and elastic anisotropy of a mylonitic anorthosite from the Morin shear zone (Quebec, Canada). *J. Struct. Geol.* 71, 100-111 [doi:10.1016/j.jsg.2014.07.021] [Download PDF](#)

437. Chen K., Kunz M., Tamura N., Wenk H.-R. (2015). Seismic stress preserved in quartz from San Andreas Fault. *Geology* 43, 219-222 [doi:10.1130/G36443.1] [Download PDF](#)
436. Kaercher, P.M., Zepeda-Alarcon, E., Prapapenka, V.B., Kanitpanyacharoen, W., Smith, J.S., Sinogeikin, S., Wenk, H.-R. (2015). Preferred orientation in experimentally deformed stishovite: implications for deformation mechanisms. *Phys. Chem. Minerals* 42, 275-285 [doi:10.1007/s00269-014-0718-5] [Download PDF](#)
435. Jackson, M.D., Landis, E.N., Brune, P.F., Vitti, M., Chen, H., Li, Q., Kunz, M., Wenk, H.-R., Monteiro, P.J.M., Ingraffea, A.R. (2014). Mechanical resilience and cementitious processes in Imperial Roman architectural mortar. *Proc. Nat. Acad. Science* 111, 18484- 18489 [doi/10.1073/pnas.1417456111] [Download PDF](#)
434. Zepeda-Alarcon, E., Nakotte, H., Gualtieri, A.F., King, G., Page, K., Vogel, S.C., Wang, H.W., Wenk, H.-R. (2014). Magnetic and nuclear structure of goethite FeOOH: A neutron diffraction study. *J. Appl. Cryst.* 47, 1983-1991 [doi:10.1107/S1600576714022651] [Download PDF](#)
433. Kanitpanyacharoen, W., Vasin, R., Dewhurst, D., Wenk, H.-R. (2015). Linking preferred orientations to elastic anisotropy in Muderong Shale, Australia. *Geophysics* 80, C1-C19 [doi:10.1190/geo2014-0236.1] [Download PDF](#)
432. Vasin, R., Lebensohn, R., Matthies, S., Tome, C.N., Wenk, H.-R. (2014). The influence of grain shape on elastic properties of aggregates: biotite platelets in an isotropic matrix. *Geophysics* 79, D433-441 [doi:10.1190/geo2014-0148.1] [Download PDF](#)
431. Janssen, C., Wirth, R., Wenk, H.-R., Morales, L., Naumann, R., Kienast, M., Song, S.R., Dresen, G. (2014). Faulting processes in active faults - evidence from TCDP and SAFOD drill core samples. *J. Struct. Geol.* 65, 100-116 [doi.org/10.1016/j.jsg.2014.04.004] [Download PDF](#)
430. Cottaar, S., Li, M., McNamara, A., Romanowicz, B., Wenk, H.-R. (2014). Synthetic seismic anisotropy models within a slab impinging on the core-mantle boundary. *Geophys. J. Intern.*, 199, 164-177 [doi: 10.1093/gji/ggu244] [Download PDF](#)
429. Kaercher P., Militzer B., Wenk, H.-R. (2014). Ab initio calculations of elastic constants of plagioclase feldspars. *Amer. Mineralogist* 99, 2344-2352 [doi:10.2138/am-2014-4796] [Download PDF](#)
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