

## Donna K. Blackman

Marine Geophysicist

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### Research Expertise

Marine geophysics, lithosphere structure & evolution, mainly Earth, some other ocean worlds. Methods include sonar, gravity, seismics, and deep sea drilling, logging and interpretation. Numerical modeling of mantle flow, mineral fabric, and development of seismic anisotropy. Calibration of hydro-acoustic signals with application to nuclear test ban monitoring.

### Education

	Major	Degree	Yr
Brown University, Providence, RI	Marine Geophysics	PhD.	1991
Massachusetts Institute of Technology, Cambridge MA	Marine Geophysics	M. Sc.	1986
University of California, Santa Cruz CA	Earth Science	B.S.	1982
Pasadena City College, Pasadena CA	Geology	A.A.	1979
Semester at Sea, University of Colorado, Boulder CO	Humanities		1977

### Positions Held

7/2019-present Research Associate/Research Geophysicist (from 9/2020), UC Santa Cruz, CA  
7/2003-6/2018 Research Geophysicist, Scripps Institution Oceanography, UC San Diego, CA  
7/2012-6/2015 Program Director, National Science Foundation, OCE/MGG  
8/1995-7/1996 Lecturer, Dept. Earth Sciences, University of Leeds, Leeds, UK  
5/1992-6/2003 Postdoc/Asst./Assoc. Research Geophysicist, Scripps Inst. of Oceanography  
3/1991-12/1991 RIDGE Office admin., & Research Postdoc, University of Washington  
8/1980-8/1983 Field/Lab Assistant, USGS, Pacific Marine Geology Branch, Menlo Park CA  
11/1978-6/1979 Lab Assistant, Jet Propulsion Laboratory, Pasadena CA

### Seagoing Experience

Participation in geophysical/geological data acquisition on 29 research cruises 1981-2023, throughout the oceans, 2-8 wks each. Led/designed acquisition & sailed as chief scientist on 9.

### Professional Leadership Activities

Ocean Network Canada, Intl. Scientific Advisory Board (2022-present; chair 2024-2026)  
Chikyu International Ocean Discovery Program (IODP) Board (2019-2024)  
IODP Science Framework 2050 and Proposal Guidelines writing/review teams (2019-2021)  
Editorial Board, Geophysical Journal International (3/2017-6/2019)  
GEOMAR, Germany Scientific Advisory Board (6/2015-5/2019)  
Expert Committee for Canada Foundation for Innovation (Sept 2014, Summer 2019)  
IODP Geophysics Lab Working Group (8/2015-7/2017)  
Co-Mentor, Early Career Training Cruise/Telepresence for Deep Submergence, Summer 2016  
Invited Talks (~12, 2009-19): InterRidge, ESF, DCO, MARGINS, AGU; Dept Colloquia  
Sweden Research Council Evaluation Panel (Sept 2014)  
IODP: Science Planning Committee, Nov 2008-2011; SSEP 2001-2004  
Marine Geosciences Leadership Symposium, Speaker March 2009  
IODP Distinguished Lecturer 2006/2007  
Ridge 2000, Steering Committee 2002-2005; Chair 2005-2008  
NSF proposal review panels: 8 in 1995-2012 period

## Courses & Graduate Student Mentoring

Topics in Geophysical Research SIO239 graduate seminar (co-taught 50% 2007-2012, 2016)  
Solid & Fluid Earth, ESYS102 undergraduate (co-designed & co-taught 30%, 6 yrs 2002-2010)  
Geology, EARTH101 undergraduate (co-taught 50%, 1999)  
Geodynamics, SIO234 (1997)  
Continuum Mechanics, SIO 225 (co-taught 50%, 1996)  
Marine Geology (University of Washington 1992)

*Thesis Advisor for:* Ashlee Henig, PhD 2012. *Postdoc Advisor for:* Jolante van Wijk.  
*PhD Thesis Committee for:* Kristin Dickerson, John DeSanto, Joyce Sim, Rachel Marcuson,  
Chris Takeuchi, Vera Schulte-Pelkum, Marcel Croon, Roi Granot, Tim Schroeder (UWyo), Jim  
Behrens, Scott Noonan, Bridget Konter-Smith, Allison Shaw, Diana deLeeuw, Evelyn Furi,  
Jasper Konter

## Publications

### Books

Stein, R., D. Blackman, F. Inagaki, H-C. Larsen (editors), Earth and life processes discovered from  
subseafloor environments, *Developments in Marine Geology* 7, Elsevier, 2014. doi.org/10.1016/  
B978-0-444-62617-2.00016-5  
Blackman, D.K., Ildefonse, B., John, B.E., Ohara, Y., Miller, D.J., MacLeod, C.J., and the Expedition  
Scientists, Proc. IODP, 304/305: College Station TX (Integrated Ocean Drilling Program Management  
International, Inc.), 2006. publications.iodp.org/proceedings/304\_305/30405title.htm  
Phipps Morgan, J., D. Blackman and J. Sinton (eds.) Mantle flow and melt generation at mid-ocean  
ridges, *AGU Monograph* 71, 311-326, 1992. doi.org/10.1029/GM071

### Journal Articles

Fisher, A. T., Dickerson, K. L., Blackman, D. K., Randolph-Flagg, N. G., German, C., & Sotin, C.  
Sustaining hydrothermal circulation with gravity relevant to ocean worlds. *J. Geophys. Res.: Planets*,  
2024. doi.org/10.1029/2023JE008202  
Blackman, DK, S Talavera-Soza, R-J Hung, JA Collins, G Laske, Pacific seafloor in the 40-52 Myr old  
portion of the Molokai to Murray corridor, *Mar. Geol.*, 2024. doi.org/10.1016/j.margeo.2024.107246.  
German, CR, DK Blackman, AT Fisher, PR Girguis, KP Hand, TM Hoehler, JA Huber, JC Marshall, KR  
Pietro, JS Seewald EL Shock, C Sotin, AM Thurnherr, BM Toner, Ocean system science to inform the  
exploration of ocean worlds, *Oceanography* 35, 16-22, 2022. doi.org/10.5670/oceanog.2021.411  
German, CR, T Baumberger, MD Lilley, JE Lupton, AE Noble, M Saito, AR Thurber, DK Blackman,  
Hydrothermal exploration of the southern Chile Rise: Sediment hosted venting at the Chile Triple  
Junction, *Geochem. Geophys. Geosys.* 23, 2022. doi.org/10.1029/2021/GC010317  
Li, J., Mara, P., Schubotz, F., Sylvan, J., Burgaud, G., Klein, F., Beaudoin, D, Wee, S.-Y., Dick, H., Lott,  
S. , Cox, R. , Meyer, L.A.E., Quémener, M., Blackman, D., Edgcomb, V.P. , Recycling and metabolic  
flexibility dictate life in the lower oceanic crust, *Nature*, 2020. doi.org/10.1038/s41586-020-2075-5  
Dick, H.J.B., Macleod, C.J., Blum, P. and 28 others, Dynamic accretion beneath a slow spreading ridge  
segment: IODP Hole 1473A and the Atlantis Bank oceanic core complex, *J. Geophys. Res.*,  
124(12):12631–12659, 2019. doi.org/10.1029/2018JB016858  
Blackman, D.K., Abe, N., Carlson, R.L., Guerin, G., Ildefonse, B., Kumpf, A., Seismic properties of  
gabbroic sections in oceanic core complexes: Constraints from seafloor drilling, *Mar. Geophys. Res.*,  
2019. doi.org/10.1007/s11001-019-09385-7  
Blackman, D.K., D.E. Boyce, O. Castelnau, P. R. Dawson, G. Laske; Effects of crystal preferred  
orientation on upper mantle flow near plate boundaries: Rheologic feedbacks and seismic anisotropy.  
*Geophys J Int* ggx251, 2017. doi.org/10.1093/gji/ggx251

- Harding, A.J., A.F. Arnulf, D.K. Blackman, Velocity structure near IODP Hole U1309D, Atlantis Massif, from waveform inversion of streamer data and borehole measurements, *Geochem. Geophys. Geosys.* 17, 2016. doi.org/10.1002/2016gc006312
- Greene, J.A., M. Tominaga, D.K. Blackman, Geologic implications of seafloor character and carbonate lithification imaged on the domal core of Atlantis Massif, *Deep Sea Res. II*, 2015. doi.org/10.1016/j.dsr2.2015.06.020
- Menke, W., Y. Zha, S.C. Webb, D.K. Blackman, Seismic anisotropy indicates ridge-parallel asthenospheric flow beneath the Eastern Lau Spreading Center, *J. Geophys. Res.*, 2015. doi.org/10.1002/2014jb011154
- Wei, S.S., D.A. Wiens, Y. Zha, T. Plank, S.C. Webb, D.K. Blackman, R.A. Dunn, J.A. Conder, Seismological evidence of effects of water on mantle melt transport beneath the Lau back-arc basin, *Nature* 518, 2015. doi.org/10.1038/nature14113
- Zha, Y., S.C. Webb, S.S. Wei, D.A. Wiens, D.K. Blackman, W. Menke, R.A. Dunn, J.A. Conder, Seismological imaging of ridge-arc interaction beneath the Eastern Lau spreading center from OBS ambient noise tomography, *Earth Planet. Sci. Lett.* 408, 194-206, 2014. doi.org/10.1016/j.epsl.2014.10.019
- Marcuson, R., D.K. Blackman, N. Harmon, Seismic anisotropy predicted for 2-D plate-driven flow in the Lau back-arc basin, *Phys. Earth Planet. Int.*, 233, 88-94, 2014. doi.org/10.1016/j.pepi.2014.06.007
- Blackman, D. K., A. Slagle, G. Guerin, and A. Harding, Geophysical signatures of past and present hydration within a young oceanic core complex, *Geophys. Res. Lett.*, 41, 1179–1186, 2014. doi.org/10.1002/2013gl058111
- Blackman, D.K., B. Appelgate, C.R. German, A.R. Thurber, A.S. Henig, Axial morphology along the southern Chile Rise, *Marine Geology*, 315-318, 2012. doi.org/10.1016/j.margeo.2012.06.001
- Henig, A.S., D.K. Blackman, A.J. Harding, J-P. Canales, G.M. Kent, Downward continued multi-channel seismic refraction analysis of Atlantis Massif oceanic core complex, 30°N Mid-Atlantic Ridge, *Geochemistry, Geophysics, Geosystems* 13, Q0AG07, 2012. doi.org/10.1029/2012gc004059
- Blackman, D.K., B. Ildefonse, B.E. John, Y. Ohara, D.J. Miller and Exp. 304/305 Science Party, Drilling Constraints on Lithospheric Accretion and Evolution at Atlantis Massif, Mid-Atlantic Ridge 30°N, *J. Geophys. Res.* 116, 2011. doi.org/10.1029/2010jb007931
- Blackman, D.K. and J.A. Collins, Lower Crustal Variability and the Crust/Mantle Transition at the Atlantis Massif Oceanic Core Complex, *Geophys. Res. Lett.* 37, L24303, 2010. doi.org/10.1029/2010gl045165
- Harmon, N. and D.K. Blackman, Effects of plate boundary geometry and kinematics on mantle melting beneath the back-arc spreading centers along the Lau Basin, *Earth Planet. Sci. Lett.*, 2010. doi.org/10.1016/j.epsl.2010.08.004
- Blackman, D.K., J.P. Canales, and A. Harding, Geophysical signatures of oceanic core complexes, REVIEW ARTICLE *Geophys. J. Int.* 178, 593–613, 2009. doi.org/10.1111/j.1365-246X.2009.04184.x
- Castelnau, O., D. K. Blackman, T.W. Becker, Numerical simulations of texture development and associated rheological anisotropy in regions of complex mantle flow, *Geophys. Res. Letter*, 36, L12304, 2009. doi.org/10.1029/2009gl038027
- Collins, J.A., D.K. Blackman, A. Harris, R.L. Carlson, Seismic and drilling constraints on velocity structure and reflectivity near IODP Hole U1309D on the central dome of Atlantis Massif, Mid-Atlantic Ridge 30°N, *GCubed* 10, 2009. doi.org/10.1029/2008gc002121
- de Groot-Hedlin, C., D.K. Blackman, C.S. Jenkins, Effects of variability associated with the Antarctic Circumpolar Current on sound propagation in the ocean, *Geophys. J. Intl.*, 176, 478-490, 2009. doi.org/10.1111/j.1365-246X.2008.04007.x
- Castelnau, O., D. K. Blackman, R. A. Lebensohn, and P. Ponte, Micromechanical modeling of the viscoplastic behavior of olivine, *J. Geophys. Res.* 113, 2008. doi.org/10.1029/2007jb005444
- Blackman, D.K., R.C. Searle, G.D. Karner, 3-D structure of oceanic core complexes: effects on gravity signature and ridge flank morphology, Mid-Atlantic Ridge 30N, *GCubed*, 2008. doi.org/10.1029/2008gc001951
- Ildefonse, B., D.K. Blackman, B.E. John, Y. Ohara, D.J. Miller, C.J. MacLeod, IODP Expeditions 304/305 Science Party, Oceanic core complexes and crustal accretion at slow-spreading ridges, *Geology* 35, 623-626, 2007. doi.org/10.1130/g23531a.1
- Van Wijk, J.W. and D.K. Blackman, Development of an echelon magmatic segments along oblique spreading ridges, *Geology* 35, 599-602, 2007. doi.org/10.1130/g23294a.1

- Blackman, D.K., Use of mineral physics, with geodynamic modeling and seismology, to investigate flow in the Earth's mantle, Reports on Progress in Physics 70, 659-689, 2007. doi.org/10.1088/0034-4885/70/5/r01
- Becker, T.W., S. Chevrot, V. Schulte-Pelkum, D.K. Blackman, Statistical properties of seismic anisotropy predicted by upper mantle geodynamic models, J. Geophys. Res. 111, B08309, 2006. doi.org/10.1029/2005jb004095
- Becker, T. W., Schulte-Pelkum, V., Blackman, D. K., Kellogg, J. B., and O'Connell, R. J.: Mantle flow under the western United States from shear wave splitting, Earth Planet. Sci. Lett., 247, 235-251, 2006. doi.org/10.1016/j.epsl.2006.05.010
- Van Wijk, J.W. and D.K. Blackman, Deformation of oceanic lithosphere near slow-spreading ridge discontinuities, Tectonophysics 407, 211-225, 2005. doi.org/10.1016/j.tecto.2005.08.009
- Van Wijk, J.W. and D.K. Blackman, Dynamics of continental rift propagation: the end-member modes, Earth Planet. Sci. Lett. 229, 247-258, 2005. doi.org/10.1016/j.epsl.2004.10.039
- Blackman, D.K., de Groot-Hedlin, C., Harben, P., Sauter, A., Orcutt, J.A., Testing low/very low frequency acoustic sources for basin-wide propagation in the Indian Ocean. J. Acoust. Soc. Amer. 116, , doi:10.1121/1.1786711, 2004. doi.org/10.1121/1.1786711
- Blackman, D.K., J.A. Karson, D.S. Kelley, J.R. Cann, G.L. Früh-Green, J.S. Gee, S. Hurst, J. Morgan, S.L. Nooner, D.K. Ross, T. Schroeder, E.A. Williams, Geology of the Atlantis Massif (MAR 30°N): implications for the evolution of an ultramafic oceanic core complex, Mar. Geophys. Res. 23,443-469, 2004 (listed as 2002 by journal but release was actually 2004). doi.org/10.1023/b:mari.0000018232.14085.75
- Schulte-Pelkum, V. and D.K. Blackman, A synthesis of seismic P and S anisotropy, Geophys. J. Intl. 54, 166-178, 2003. doi.org/10.1046/j.1365-246X.2003.01951.x
- Nooner, S.L., Sasagawa, G.S., Blackman, D.K., Zumberge, M.A, Constraints on crustal structure at the Mid-Atlantic Ridge from seafloor gravity measurements made at the Atlantis Massif, Geophys. Res. Lett. 30, 1446, 2003. doi.org/10.1029/2003gl017126
- Blackman, D.K., H-R. Wenk, J-M. Kendall, Seismic anisotropy in the upper mantle: 1. Factors that affect mineral texture and effective elastic properties, G-Cubed, 2002. doi.org/ 10.1029/2001gc000248
- Blackman, D.K. and J-M. Kendall, Seismic anisotropy in the upper mantle: 2. Predictions for current plate boundary flow models, G-Cubed, 2002. doi.org/10.1029/2001gc000247
- Klingelhöfer, F. , T.A. Minshull, D.K. Blackman, P. Harben, V. Childers, Crustal structure of Ascension Island from wide-angle seismic data: implications for the formation of near-ridge volcanic islands, Earth Planet. Sci. Lett. 190, 41-56, 2001. doi.org/10.1016/s0012-821x(01)00362-4
- Kelley, D.S., J.A. Karson, D.K. Blackman, G.L. Früh-Green, D.A. Butterfield, M.D. Lilley, E.J. Olson, M.O. Schrenk, K.K. Roe, G.T. Lebon, P. Rivizzigno and AT3-60 Shipboard Party, An off- axis hydrothermal vent field discovered near the Mid-Atlantic Ridge at 30°N, Nature 412, 145-149, 2001. doi.org/10.1038/35084000
- Blackman, D.K., C.E. Nishimura, J.A. Orcutt, Seismoacoustic recordings of a spreading episode on the Mohs Ridge, J. Geophys. Res. 105, 10,961-10,973, 2000. doi.org/ 10.1029/2000jb900011
- Hall, C.E., K.M. Fischer, E.M. Parmentier, D.K. Blackman, The influence of plate motions on three dimensional back-arc mantle flow and shear wave splitting, J. Geophys. Res. 105, 28,009-28,034, 2000. doi.org/10.1029/2000jb900297
- Blackman, DK, JR Cann, B. Janssen, DK Smith, Origin of extensional core complexes: evidence from the Mid-Atlantic Ridge at Atlantis fracture zone, J. Geophys. Res. 103, 21,315-21333, 1998. doi.org/10.1029/98jb01756
- MELT Seismic Team, Imaging the deep seismic structure beneath a mid-ocean ridge: the MELT Experiment, Science 280, 1215-1218, 1998. doi.org/10.1126/science.280.5367.1215
- Cann, J.R., D.K. Blackman, D.K. Smith, E. McAllister, B. Janssen, S. Mello, E. Avgerinos, A.R. Pascoe, J. Escartin, Corrugated slip surfaces formed at ridge-transform intersections on the Mid- Atlantic Ridge, Nature 385, 329-332, 1997. doi.org/10.1038/385329a0
- Blackman, D.K. and J-M. Kendall, Sensitivity of teleseismic body waves to mineral texture and melt in the mantle beneath a mid-ocean ridge, Phil. Trans. Roy. Soc. London 355, 217-231, 1997.
- Blackman, DK, Variation in lithospheric stress along ridge-transform plate boundaries, Geophys. Res. Lett. 24, 461-464 1997. doi.org/10.1029/97gl00122
- Blackman, DK, J-M Kendall, PR Dawson, H-R Wenk, D Boyce, J Phipps Morgan, Teleseismic imaging of subaxial flow at mid-ocean ridges: travel-time effects of anisotropic mineral texture in the mantle, J. Geophys. Intl. 127, 415-426, 1996. doi.org/10.1111/j.1365-246X.1996.tb04730.x

- Blackman, DK, JA Orcutt, DW Forsyth, Recording teleseismic earthquakes using ocean bottom seismographs at mid-ocean ridges, *Bull. Seis. Soc. Amer.* 185, 1648-1664, 1995.
- Michael, PJ, DW Forsyth, DK Blackman, PJ Fox, BB Hanan, AJ Harding, KC Macdonald, GA Neumann, JA Orcutt, M Tolstoy, CM Weiland, Mantle control of a dynamically evolving spreading center, *Earth Planet. Sci. Lett.* 121, 451-468, 1994. doi.org/10.1016/0012-821x(94)90083-3
- Phipps Morgan, J, and DK Blackman, Inversion of combined gravity and bathymetry data for crustal structure: a prescription for downward continuation, *Earth Planet. Sci. Lett.* 119, 167-179, 1993. doi.org/10.1016/0012-821x(93)90014-z
- Blackman, DK, JA Orcutt, DW Forsyth, J-M Kendall, Seismic anisotropy in the mantle beneath an oceanic spreading center, *Nature* 366, 675-677, 1993. doi.org/10.1038/366675a0
- Blackman, D.K., and D.W. Forsyth, The effects of plate thickening on three-dimensional, passive flow of the mantle beneath mid-ocean ridges, in J Phipps Morgan, D Blackman and J Sinton (eds.) *Mantle flow and melt generation at mid-ocean ridges*, AGU Mono. 71, 311-326 1992. doi.org/ 10.1029/GM071p0311
- Blackman, D. K. and D. W. Forsyth, Isostatic compensation of tectonic features of the Mid- Atlantic Ridge: 25-27°S, *J. Geophys. Res.* 96, 11,741-11,758, 1991. doi.org/10.1029/91jb00602
- Blackman, D.K, and D.W Forsyth, Axial topographic relief associated with ridge-transform intersections, *Earth Planet. Sci. Lett* 95, 115-129, 1989. doi.org/10.1016/0012-821X(89)90171-4
- Uchupi, E, WC Schwab, RD Ballard, JL Cheminee, J Francheteau, R Hekinian, DK Blackman, H Sigurdsson, An Angus/Argo study of the neovolcanic zone along the East Pacific Rise from the Clipperton Fracture zone to 12°N, *Geo-Marine Letters* 8, 131-138, 1988. doi.org/10.1007.BF02326089
- Ballard, RD, E Uchupi, DK Blackman, JL Cheminee, J Francheteau, R Hekinian, WC Schwab, H Sigurdsson, Geological mapping of the East Pacific Rise axis (10°19' - 11°53' N) using the Argo and ANGUS imaging systems, *Canadian Mineralogist* 26, 467-486, 1988.
- Blackman, DK, RP von Herzen, LA Lawver, Heat flow and tectonics in the western Ross Sea, Antarctica, in AK Cooper and FJ Davey (eds.), *The Antarctic continental margin: geology and geophysics of the western Ross Sea*, Circum-Pacific Council for Energy and Mineral Resources Earth Science Series, vol. 5B, 179-189, 1987.

### Recent Conference Abstracts

- Laske, G., G. Atkisson, J.A. Collins, D.K. Blackman, Rayleigh-wave Ambient Noise Analysis for the OHANA Experiment in the Northeast Pacific, Abs. 1558901, AGU Fall Mtg. 2024.
- Fisher, A.F., K.L. Dickerson, D.K. Blackman, N.G. Randolph-Flagg, C.R. German, C. Sotin, Low gravity on ocean worlds can help to sustain low-to-moderate temperature hydrothermal circulation, AbSciCon 2024.
- Blackman, D.K., S. Talavera-Soza, R-J. Hung, J.A. Collins, G. Laske Volcanic Features in the 40-52 Myr Portion of the Molokai to Murray Pacific Spreading Corridor, Fall AGU Abs. T34-0294, 2023.
- Blackman, DK, NG Randolph-Flagg, AT Fisher, AN Price, C Sotin, Seafloor variability on Ocean Worlds-potential influences of relief and meteoritic sedimentation on hydrothermal flow pattern, Abstract, AbSciCon22, May 2022.
- Fisher, AT, AN Price, DK Blackman, NG Randolph-Flagg, C Sotin, Outcrop-to-outcrop hydrothermal circulation under Ocean World gravity conditions, Abstract P55B-1924, AGU Fall Mtg, 2021.
- Edgcomb, VP, DJ Beaudoin, DK Blackman, G Burgaud, R Cox, HJB Dick, F Klein, J Li, S Lott, P Mara, LAE Meyer, M Quemener, F Schubotz, JB Sylvan, SYWee, Microbial bio signatures in the lower oceanic crust at Atlantis Bank, Indian Ocean, Abstract H160-05, AGU Fall Mtg 2020.
- McCaig, A, DK Blackman, B Orcutt, B Menez, MD Lilley, CG Wheat, JC Lissenberg, B Ildefonse, F Klein, SQ Lang, WE Seyfried, M Andreani, BE John, M Godard, A Morris, E Schwarzenbach, CJ MacLod, IP Savov, N Abe, Y Ohara, Accessing the building blocks of life: Deepening Hole U1309D, Atlantis Massif, Mid-Atlantic Ridge IODP Proposal 937, Abstract OS024-0002, AGU Fall Mtg 2020.
- Blackman, DK, and AT Fisher, Geophysical investigation of exchange between planetary oceans and rocky interior- knowledge from deep sea scenarios on Earth, Abstract, AGU Ocean Science Mtg, 2020.
- Price, AN, Fisher, AT, Blackman, DK, Randolph-Flagg, NG, Dynamics of Subseafloor Hydrothermal Circulation on Ocean Worlds. AGU Fall Meeting Abstracts (Vol. 2020, pp. P076-0001).

## Publications in Science Program Open Literature

- MacLeod, C.J., Dick, H.J.B., Blum, P., and the Expedition 360 Scientists, 2017. Southwest Indian Ridge Lower Crust and Moho. *Proc. IODP*, 360: College Station, TX. doi.org/10.14379/iodp.proc.360.2017.
- Dick, H.J.B., MacLeod, C.J., Blum, P., and Expedition 360 Scientists, 2016. *Expedition 360 Preliminary Report: Southwest Indian Ridge Lower Crust and Moho*. IODP doi.org/10.14379/iodp.pr.360.2016.
- Blackman, D., Hydration of young oceanic crust- views from IODP drilling, logging, borehole monitoring, and core/log/seismic integration, *Core Discoveries*, p5, Winter Newsletter, 2011.
- Hayman, N.W., W. Bach, D. Blackman, G.L. Christeson, K. Edwards, R. Haymon, B. Ildefonse, M. Schulte, D. Teagle, S. White, Future scientific drilling of ocean crust, *Eos Trans. AGU* 91, #15, 133-134, 2010.
- Henig, A.S., Blackman, D.K., Harding, A.J., Kent, G.M. & Canales, J.-P.. Seismic Velocity Variation within the Footwall of an Oceanic Core Complex– Atlantis Massif, Mid-Atlantic Ridge 30°N, *InterRidge Newsletter*, 18, 2009.
- Ildefonse, B., P.A. Rona, and D. Blackman, Drilling the crust at mid-ocean ridges, *Oceanography*, 20, 22-33, 2007.
- Ildefonse, B., D. M. Christie, D. Blackman, and the Mission Moho Workshop Steering Committee, Mission Moho Workshop: Drilling through the Oceanic crust to the mantle, *Scientific Drilling*, v. 4, 11-18, 2007.
- Ildefonse, B., D.M. Christie, N. Abe, S. Arai, W. Bach, D.K. Blackman, R. Duncan, E. Hooft, S.E. Humphris, and D. Miller, Mission Moho: formation and evolution of oceanic lithosphere, *Eos Trans. AGU*, 87 (48), p539, 2006.
- Ildefonse, B., Blackman, D.K. John, B.E., Ohara, Y., Miller, D.J., MacLeod, C.J., and the Expedition Scientists, IODP Expeditions 304 & 305 Characterize the Lithology, Structure, and Alteration of an Oceanic Core Complex, *Scientific Drilling*, v.3, 4-11, 2006.
- Blackman, D.K., Ildefonse, B., John, B.E., Ohara, Y., Miller, D.J., MacLeod, C.J., & Expedition 304/305 Scientists, 2006. *Proc. IODP*, 304/305: College Station TX (Integrated Ocean Drilling Program Management International, Inc.). doi.org/10.2204/iodp.proc.304305.2006.
- Expedition Science Party, IODP Expeditions 304 and 305. Oceanic Core Complex Formation, Atlantis Massif, *Scientific Drilling*, v1, 28-30, doi.org/10.2204/iodp.sd.1.05.2005, 2005.
- Shipboard Scientific Party, Oceanic core complex formation, Atlantis massif, IODP Prel. Rept., 305, 2005. [iodp.tamu.edu/publications/PR/305PR/305PR.pdf](http://iodp.tamu.edu/publications/PR/305PR/305PR.pdf)
- Shipboard Scientific Party, Oceanic core complex formation, Atlantis massif, IODP Prel. Rept., 304, 2005. [iodp.tamu.edu/publications/PR/304PR/304PR.pdf](http://iodp.tamu.edu/publications/PR/304PR/304PR.pdf)
- Blackman, D.K., B.E. John, C.J. MacLeod, B. Ildefonse, Y. Ohara, D.J. Miller, and the Expedition 304/305 Project Team, Oceanic core complex formation, Atlantis massif, IODP Sci. Prosp., 304/305, [iodp.tamu.edu/publications/SP/304305SP.pdf](http://iodp.tamu.edu/publications/SP/304305SP.pdf)
- Blackman, D.K., C. de Groot-Hedlin, J.A. Orcutt, P.E. Harben, D. B. Clark, and A.L. Ramirez, Methods for calibrating basin-wide hydroacoustic propagation in the Indian Ocean, University of California Technical Report UCRL-TR-207323, 2004.
- Kelley, D., J. Karson, D. Blackman, G. Fruh-Green, D. Butterfield, M. Lilley, M. Schrenk, E. Olson, K. Roe, J. Lebon, and Shipboard Scientific party, Discovery of Lost City, *RIDGE Events*, volume 11, 3-9, 2001.
- Blackman, D., J. Karson, D. Kelley, and Shipboard Scientific Party, Seafloor mapping and sampling of the MAR 30°N oceanic core complex, *InterRidge Newsletter*, volume 10, 33-36, 2001.
- Harben, P.E., D.K. Blackman, and C. Turpin, Calibration factors for three MILS hydrophones near Ascension Island, Lawrence Livermore Nat. Lab. Report, 13 pp, 2000.
- Blackman, D., J. Hanson, J. Orcutt, and H. Given, U.S. Hydrophone arrays document seismicity patterns and an earthquake swarm along slow-spreading centers, *InterRidge Newsletter*, 6, 13-16, 1997.
- Blackman, D. and T Stroh, RIDGE: cooperative studies of mid-ocean ridges, *Oceanus* 34, 21-23, Winter 1991/1992.
- von Huene, R, J Miller, D Taylor, D Blackman, A study of geophysical data along the deep sea drilling project active margin transect off Guatemala, in R von Huene and J Aubouin et al., *Init. Repts. DSDP* 89, 895-909, 1985.