

Curriculum Vitæ (abbreviated)

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Personal Information

Name: David A. Vanko

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Education

B.A. - M.A. in Geology, 1976 Johns Hopkins University, Baltimore, Maryland.
Ph.D. in Geology, 1982 Northwestern University, Evanston, Illinois.

Academic Appointments

Towson University (Towson, Maryland):

2/2010-present Dean, Jess and Mildred Fisher College of Science and Mathematics
7/2018-2/2019 Interim Provost and Executive Vice President for Academic Affairs
10/2007- 2/2010 Acting Dean, Fisher College of Science and Mathematics
2001- 2007 Professor and Chairperson, Department of Physics, Astronomy
and Geosciences

Georgia State University (Atlanta, Georgia):

1993-2001 Chairperson, Department of Geology
1992-1993 Acting Chairperson, Department of Geology
1997 Visiting CNRS Research Fellow, University of Paris VI
1983-2001 Assistant Professor through Professor

Washington University in St. Louis:

1982 Lecturer
1981-1983 Research Associate, The McDonnell Center for the Space Sciences

Major Accomplishments as FCSM Dean

- Established the FCSM Advisory Board
- As Principal Investigator (PI), created the TU Robert Noyce Scholarship Program with a five-year, \$900,000 grant from the National Science Foundation
- As PI, spearheaded a \$1.395M Academic Research Infrastructure grant from the National Science Foundation
- As co-PI, created the Baltimore Excellence in STEM Teachers program with a \$2M Federal appropriation through NASA
- Led the grant writing team that received \$1.9M to establish Towson UTeach, a new model for STEM secondary teacher preparation. Subsequently, helped in raising over \$3M in endowment funds for Towson UTeach.

- With University Advancement and the Associate Vice President for Alumni Relations, established the TU Field Station in Monkton, MD
- Absorbed the University of Maryland Biotechnology Institute's Education and Outreach unit, establishing the TU Center for STEM Excellence
- Established the first three Master Teacher positions in the FCSM in support of STEM education
- Obtained approval for
 - the Professional Science Master's Degree in Applied Physics
 - the Bachelor of Science Degree in Information Technology
 - offering the BS in Information Technology Degree in Harford County
 - the combined BS/MS in Physics with Applied Physics
 - the combined BS/MS in Mathematics with Applied and Industrial Mathematics
 - the combined BS/MS in Computer Science
 - post-baccalaureate certificates in Health Information Technology and in Computer Forensics within the MS in Applied Information Technology program
 - the Master's Degree in Actuarial Science and Predictive Analytics
- Established the Glen Arboretum Board of Directors
- Established the School of Emerging Technologies
- Assisted in science education and outreach collaborations with the National Federation of the Blind
- Provided academic leadership in the design and construction of a new science complex, including about \$2M of fund-raising
- Provided support to establish the STEM Residential Learning Community in Richmond Hall, with 100 STEM students, and creation of a new STEM Coordinator staff position, focused on student success
- Established the Jess and Mildred Fisher Endowed Chair in the Mathematical and Computing Sciences
- Provided early support leading to a successful \$1M Howard Hughes Medical Institute Inclusive Excellence grant to FCSM faculty
- Helped obtain almost \$500,000 of philanthropic support for the Hill-Lopes Scholars Program, dedicated to the advancement of women in STEM

Professional Affiliations

Mineralogical Society of America (Fellow)
Geological Society of America (Fellow)
American Geophysical Union, Geochemical Society
Geological Society of Washington
American Association for the Advancement of Science

Honors

Golden Key National Honor Society, Honorary Member, 1999
Elected Fellow, Mineralogical Society of America, 1999
Sigma Xi (The Scientific Research Society), 2002
Sigma Pi Sigma (National Physics Honor Society), 2004
Proclamation from Maryland Governor Martin O'Malley, December 8, 2014, for chairing the Marcellus Shale Safe Drilling Initiative Advisory Commission
Elected Fellow, Geological Society of America, 2016

Significant Recent Appointments

Maryland State Geologic Mapping Advisory Committee, Maryland Geological Survey, Department of Natural Resources, 2004-present (Chairperson, 2006-2018)
Organizing Committee, PACROFI IX (Pan-American Conference on Research on Fluid Inclusions), 2008, Reston, VA.
Maryland Space Grant Consortium, Oversight Committee, 2007-present.
Maryland Governor's Marcellus Shale Safe Drilling Initiative Advisory Commission (Chairperson), 2011-2015.
Board of Directors, Building STEPS (Science Technology Education Partnerships), 2011-2018.
Advisory Board, Baltimore County STEM Alliance, 2012-2015.
The Board of the Middle Grades Partnership, 2012-2018.
General Chair, 2015 Annual Meeting of the Geological Society of America, Baltimore, 2014-2015
Internal Advisory Committee for the Maryland and Delaware Climate Change Education Assessment and Research (MADE CLEAR) NSF grant project, 2015-present.
Scientific and Technical Work Group member for the Maryland Commission on Climate Change, 2015-present.
Greater Washington Partnership/Capital CoLAB University Leadership Council, 2020-present

Research Experience

General Interests

Igneous and metamorphic petrology, especially of the oceanic crust.
Fluid-rock interaction, with emphasis on ocean crust formation.
Applications of fluid inclusion analysis.
Public policy surrounding high-volume hydraulic fracturing and climate change.

Summary

I have spent 405 days at sea on various research vessels using dredging, single- and multi-beam sonar, deep sea drilling, manned and unmanned submersibles. I have made five dives in DSRV Alvin, to a maximum depth of 3,500 meters. In addition to deep-sea volcanoes, my field experience also includes visiting or witnessing six active volcanoes - Kilauea (Hawaii), Arenal and Poas (Costa Rica), Wolf (Galapagos), Tavurvur (Papua New Guinea), La Soufriere (Guadeloupe) - and numerous inactive subaerial volcanoes, four mid-ocean ridges [East Pacific Rise, Juan de Fuca Ridge, Mid-Atlantic Ridge (Iceland), Manus Spreading Center], and many other diverse geological sites.

Significant Administrative Experience

Department Chair, Georgia State University (1993-2001)
Senator, University Senate, GSU (1992-2001)
Professional Education Faculty (NCATE-accredited teacher preparation unit), GSU (1994-2001)
Chair of the Professional Education Faculty (1998-1999)
Department Chair, Towson University (2001-2007)
Resource Planning & Advisory Committee of the Towson University Senate (2002-2007; 2011-2016)
Senate Ad hoc Committee on Faculty Workload (2004)
Acting Dean, Fisher College of Science and Mathematics, Towson University (10/2007-1/2010)
Dean, Fisher College of Science and Mathematics, Towson University (2010-present)

Towson University Presidential Search and Selection Committee (2011)
Towson University Presidential Search and Selection Committee (2015)
Interim Provost and Executive Vice President for Academic Affairs, Towson University (7/2018-
2/2019)

Editorial/Review Activities

Proposals: Provided mail reviews of 117 grant proposals for: National Science Foundation; U.S. Dept. of Energy; National Oceanic and Atmospheric Administration; International Science Foundation; Natural Environment Research Council (United Kingdom); the American Chemical Society / Petroleum Research Fund; Washington Sea Grant Program; U.S. Civilian Research & Development Foundation; Research Council of Norway; Austrian Science Fund; Schmidt Ocean Institute.

Manuscripts: Reviewed 112 manuscripts for 40 professional journals or series.

Extramural Research Grants (as sole Principal Investigator unless otherwise noted)

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| 1983 | Cottrell Research Grant, Research Corporation: \$3,500. |
| 1984 | National Science Foundation (EAR-8316739): \$24,502. |
| 1985 | Petroleum Research Fund, American Chemical Society (#16914-GB2): \$15,000. |
| 1987 | National Science Foundation (OCE-8710717): \$60,294. |
| 1987 | National Science Foundation (EAR-8617682): co-PI with T.E. LaTour; \$94,400. |
| 1988 | National Science Foundation (OCE-8812316): \$25,000. |
| 1989 | National Science Foundation (OCE-8906261): \$26,034. |
| 1991 | National Science Foundation (EAR-9103530): \$60,125. |
| 1991 | Texas A&M Research Foundation (JOI/USSSP): \$22,938. |
| 1992 | National Science Foundation (OCE-9114832): \$70,511. |
| 1992 | Texas A&M Research Foundation (JOI/USSSP): \$11,988. |
| 1993 | Texas A&M Research Foundation (JOI/USSSP): \$18,600. |
| 1993 | Texas A&M Research Foundation (JOI/USSSP): \$14,046. |
| 1994 | Education, Research, and Development Association of Georgia Universities (ERDA-DOE; DE-AC09-89SR18035): co-PI with T.E. LaTour; \$46,284. |
| 1994 | National Science Foundation (DUE-9452375): co-PI with S.E. Rose; \$27,066. |
| 1994 | National Science Foundation (EAR-9405716): co-PI with A.M. Ghazi; \$167,943. |
| 1995 | National Science Foundation (EAR-9506023): co-PI with A.M. Ghazi; \$20,149. |
| 1996 | Texas A&M Research Foundation (JOI/USSSP): \$37,210. |
| 1997 | Texas A&M Research Foundation (JOI/USSSP): \$21,680. |
| 2000 | Texas A&M Research Foundation (JOI/USSSP): \$52,488. |
| 2001 | Texas A&M Research Foundation (JOI/USSSP): \$15,536. |
| 2004 | National Science Foundation (OCE-0425591): \$50,404. |
| 2004 | National Science Foundation (MRI-0421141): co-PI with M. Rajeswari, V. Smolyaninova, D. Schaefer, and S. Lev; \$267,196. |
| 2009 | National Science Foundation (DUE-0934751): PI, with co-PIs K. Denniston, D. Thomas, J. Wolfson and T. Kenreich; \$900,000. |
| 2009 | NASA (NNX09AT03G): co-PI with K. Denniston and R. Miranda (became PI on KD's departure); \$1,000,000. |
| 2010 | NASA (NNX10AJ68G): co-PI with K. Denniston and R. Miranda (became PI on KD's departure); \$1,000,000. |

- 2010 National Science Foundation (CHE-0963263): PI, with co-PIs S. Lev, J. Snodgrass, R. Casey, and D. Ownby; \$1,395,000.
- 2012 Maryland State Department of Education and National Math and Science Initiative: "Towson UTeach," PI, with co-PI R. Lorion; \$1,900,000.
- 2018 National Science Foundation (HRD-1820974): co-PI with M. Perreault and C. Ghent; \$119,534.

Selected Recent Presentations

- "Maryland's approach to potential natural gas development and high-volume hydraulic fracturing of the Marcellus Shale," Renewable Natural Resources Foundation, Washington, DC, May 11, 2014.
- "Understanding the interrelationships between the extraction of shale gas and groundwater – the state of knowledge in science and technology," XVIII Brazilian Congress on Ground Water (Congresso Brasileiro de Águas Subterrâneas), Belo Horizonte, Minas Gerais, Brazil, October 15, 2014.
- "An update on Maryland's decision on hydraulic fracturing," Southwest Baltimore County Democrats, Catonsville, MD, November 24, 2014.
- "Maryland's approach to hydraulic fracturing: the Marcellus Shale Safe Drilling Initiative Advisory process," Northeast Maryland Tech Council, Speaker Series, February 12, 2015.
- Testified by invitation to the Maryland State Legislature's Joint Committee on Administrative, Executive, and Legislative Review, on the proposed hydraulic fracturing regulations, December 20, 2016.
- "Climate change from global to local," Food for Thought, a Greenspring and Worthington Valley citizens' group, January 10, 2018.
- "Diverse students succeed in an inclusive academic culture: the role of leadership, policies and targeted investment," Geological Society of America Annual Meeting, Phoenix, AZ, September 24, 2019.
- Virtual Tours of the TU New Science Complex, TU Retired Faculty Association (2/12/21), TU Alumni Board (4/22/21), TU Alumni Association (5/4/21)

Publications in Refereed Journals

1. Vanko, David A. and Batiza, Rodey, 1982. Gabbroic rocks from the Mathematician Ridge failed rift. Nature, v. 300, p. 742-744.
2. Vanko, David A. and Bishop, Finley C., 1982. Occurrence and origin of marialitic scapolite in the Humboldt lopolith, N.W. Nevada. Contributions to Mineralogy and Petrology, v. 81, p. 877-889.
3. Batiza, Rodey and Vanko, David, 1983. Volcanic development of small oceanic central volcanoes on the flanks of the East Pacific Rise inferred from narrow beam echo sounder surveys. Marine Geology, v. 54, p. 53-90.

4. Batiza, Rodey, Fornari, Daniel, Vanko, David, and Lonsdale, Peter, 1984. Craters, calderas and hyaloclastites: common features of young Pacific seamounts. Journal of Geophysical Research, v. 89, p. 8371-8390.
5. Batiza, Rodey and Vanko, David, 1984. Petrology of young Pacific seamounts. Journal of Geophysical Research, v. 89, p. 11235-11260.
6. Batiza, Rodey and Vanko, David A., 1985. Petrologic evolution of large failed rifts in the Eastern Pacific: Petrology of volcanic and plutonic rocks from the Mathematician Ridge area and the Guadalupe Trough. Journal of Petrology, v. 26, p. 564-602.
7. Vanko, David A., 1986. High-chlorine amphiboles from oceanic rocks: product of highly-saline hydrothermal fluids? American Mineralogist, v. 71, p. 51-59.
8. Stakes, Debra and Vanko, David A., 1986. Multistage hydrothermal alteration of gabbroic rocks from the failed Mathematician Ridge. Earth and Planetary Science Letters, v. 79, p. 75-92.
9. Vanko, David A., 1988. Temperature, pressure, and composition of hydrothermal fluids, with their bearing on the magnitude of tectonic uplift at mid-ocean ridges, inferred from fluid inclusions in oceanic layer 3 rocks. Journal of Geophysical Research, v. 93, p. 4595-4611.
10. Castillo, P., Batiza, R., Vanko, D., Malavassi, E., Barquero, J., and Fernandez, E., 1988. Anomalously young volcanoes on old hot spot traces: I. Geology and petrology of Cocos Island. Geological Society of America Bulletin, v. 100, p. 1400-1414.
11. Vanko, D. A., Bodnar, R. J., and Sterner, S. M., 1988. Synthetic fluid inclusions. VIII. Vapor-saturated halite solubility in part of the system NaCl-CaCl₂-H₂O, with application to fluid inclusions from oceanic hydrothermal systems. Geochimica et Cosmochimica Acta, v. 52, p. 2451-2456.
12. Vanko, D. A., and C. L. Knight, 1989. Analysis of fluid inclusions in oceanic rocks by laser Raman microprobe techniques (extended abstract). In P. E. Russell, Ed., Microbeam Analysis- 1989, p. 583-585.
13. Vanko, David A., and Stakes, Debra S., 1991. Fluids in oceanic layer 3: evidence from veined rocks, Hole 735B, Southwest Indian Ridge. In Von Herzen, R. P., and Robinson, P. T., et al., 1991, Proc. ODP, Sci. Results, 118: College Station, TX (Ocean Drilling Program), p. 181-215.
14. Vanko, David A., Milby, Barbara J., and Heinzquith, Sean W., 1991. Massive sulfides with fluid-inclusion-bearing quartz from a young East Pacific Rise seamount. Canadian Mineralogist, v. 29, p. 453-460.
15. Vanko, David A., Griffith, Jonathan D., and Erickson, Cheryl L., 1992. Calcium-rich brines and other hydrothermal fluids in fluid inclusions from plutonic rocks, Oceanographer Transform, Mid-Atlantic Ridge. Geochimica et Cosmochimica Acta, v. 56, p. 35-47.
16. Fritz, William J., and Vanko, David A., 1992. Geochemistry and origin of a black mudstone in a volcanoclastic environment, Ordovician Lower Rhyolitic Tuff Formation, North Wales, U.K. Sedimentology, v. 39, p. 663-674.
17. Ghazi, A.M., Vanko, D.A., Roedder, E., and Seeley, R.C., 1993. Determination of rare earth elements in fluid inclusions by inductively coupled plasma mass spectrometry (ICPMS). Geochimica et Cosmochimica Acta, v. 57, p. 4513-4516.
18. Vanko, David A., Sutton, Stephen R., Rivers, Mark L., and Bodnar, Robert J., 1993. Major element ratios in synthetic fluid inclusions by synchrotron x-ray fluorescence microprobe. Chemical Geology, v. 109, p. 125-134.

19. Cline, Jean S., and Vanko, David A., 1995. Magmatically generated saline brines related to molybdenum at Questa, New Mexico, USA. In, Thompson, J.F.H., ed., *Magmas, Fluids and Ore Deposits*, Mineralogical Association of Canada Short Course Series, v. 23, p. 153-174.
20. Kelley, Deborah S., Vanko, David A., and Gu, Chifeng, 1995. Fluid evolution in oceanic crustal layer 2: Fluid inclusion evidence from the sheeted dike complex, Hole 504B, Costa Rica Rift. In Erzinger, J., Becker, K., Dick, H.J.B., and Stokking, L.B. (Eds.), 1995. Proc. ODP, Sci. Results, 137/140: College Station, TX (Ocean Drilling Program), p. 191-198.
21. Laverne, C., Vanko, D. A., Tartarotti, P., and Alt, J.C., 1995. Chemistry and geothermometry of secondary minerals from the deep sheeted dike complex, Hole 504B. In Erzinger, J., Becker, K., Dick, H.J.B., and Stokking, L.B. (Eds.), 1995. Proc. ODP, Sci. Results, 137/140: College Station, TX (Ocean Drilling Program), p. 167-189.
22. Vanko, David A., Laverne, Christine, Tartarotti, Paola, and Alt, Jeffrey C., 1996. Chemistry and origin of secondary minerals from the deep sheeted dikes cored during Leg 148 (Hole 504B). In Alt, J.C., Kinoshita, H., Stokking, L.B., and Michael, P.J. (Eds.), 1996. Proc. ODP, Sci. Results, 148: College Station, TX (Ocean Drilling Program), p. 71-86.
23. Gu, Chifeng and Vanko, David A., 1996. Nature of fluid inclusions in samples of the deep sheeted dikes cored during Leg 148 (Hole 504B). In Alt, J.C., Kinoshita, H., Stokking, L.B., and Michael, P.J. (Eds.), 1996. Proc. ODP, Sci. Results, 148: College Station, TX (Ocean Drilling Program), p. 87-95.
24. Tartarotti, Paola, Vanko, David A., Harper, Gregory D., and Dilek, Yildirim, 1996. Crack-seal veins in upper Layer 2 in Hole 896A. In Alt, J.C., Kinoshita, H., Stokking, L.B., and Michael, P.J. (Eds.), 1996. Proc. ODP, Sci. Results, 148: College Station, TX (Ocean Drilling Program), p. 281-288.
25. Alt, Jeffrey C., Laverne, Christine, Vanko, David A., Tartarotti, Paola, Teagle, Damon A.H., Bach, Wolfgang, Zuleger, Evelyn, Erzinger, Jörg, Honnorez, José, Pezard, Philippe A., Becker, Keir, Salisbury, Matthew H., and Wilkens, Roy H., 1996. Hydrothermal alteration of a section of upper oceanic crust in the eastern equatorial Pacific: a synthesis of results from Site 504B (DSDP legs 69, 70, and 83, and ODP legs 111, 137, 140, and 148). In Alt, J.C., Kinoshita, H., Stokking, L.B., and Michael, P.J. (Eds.), 1996. Proc. ODP, Sci. Results, 148: College Station, TX (Ocean Drilling Program), p. 417-434.
26. Alt, Jeffrey C., Teagle, Damon A.H., Laverne, Christine, Vanko, David A., Bach, Wolfgang, Honnorez, José, Becker, Keir, Ayadi, Miriem, and Pezard, Philippe A., 1996. Ridge flank alteration of upper ocean crust in the eastern Pacific: a synthesis of results for volcanic rocks of holes 504B and 896A. In Alt, J.C., Kinoshita, H., Stokking, L.B., and Michael, P.J. (Eds.), 1996. Proc. ODP, Sci. Results, 148: College Station, TX (Ocean Drilling Program), p. 435-450.
27. Ghazi, A.M., McCandless, T., Vanko, D.A., and Ruiz, J., 1996. New quantitative approach in trace element analysis of single fluid inclusions: applications of laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS). Journal of Analytical Atomic Spectrometry, v. 11, p. 667-674.

28. Vanko, David A., and Laverne, Christine, 1998. Hydrothermal anorthitization of plagioclase within the magmatic/hydrothermal transition in mid-ocean ridges: examples from deep sheeted dikes (Hole 504B, Costa Rica Rift) and a sheeted dike root zone (Oman Ophiolite). Earth and Planetary Science Letters, v. 162, p. 27-43.
29. Vanko, David A., and Mavrogenes, John A., 1998. Synchrotron-source X-ray Fluorescence Microprobe: Analysis of Fluid Inclusions. In McKibben, M.A., and Shanks, W.C., (Eds.), Applications of Microanalytical Techniques to Understanding Mineralizing Processes. Reviews in Economic Geology, v. 7: (Society of Economic Geologists), p. 251-263.
30. Hunter, A.G., and Leg 168 Shipboard Scientific Party, 1998. Petrological investigations of low temperature hydrothermal alteration of the upper crust, Juan de Fuca Ridge, ODP Leg 168. In Mills, R.A., and Harrison, K. (Eds.), Modern Ocean Floor Processes and the Geological Record. Geological Society of London Special Publications, v. 148, p. 99-125.
31. Porter, S., Vanko, D.A., and Ghazi, A.M., 2000. Major and trace element compositions of secondary clays in basalts altered at low temperature, eastern flank of the Juan de Fuca Ridge. Proc. ODP, Sci. Results, 168: College Station, TX (Ocean Drilling Program), p. 149-157.
32. Yatabe, A., Vanko, D.A., and Ghazi, A.M., 2000. Petrography and chemical compositions of secondary calcite and aragonite from basalts altered at low temperature, eastern flank of the Juan de Fuca Ridge. Proc. ODP, Sci. Results, 168: College Station, TX (Ocean Drilling Program), p. 137-148.
33. Marescotti, P., Vanko, D.A., and Cabella, R., 2000. From oxidizing to reducing alteration: mineralogical variations in pillow basalts from the east flank of the Juan de Fuca Ridge. Proc. ODP, Sci. Results, 168: College Station, TX (Ocean Drilling Program), p. 119-136.
34. Vanko, D.A., Bonnin-Mosbah, M., Philippot, P., Roedder, E., and Sutton, S.R., 2001. Fluid inclusions in quartz from oceanic hydrothermal specimens and the Bingham, Utah, porphyry-Cu deposit: a study with PIXE and SXRF. Chemical Geology, v. 173, p. 227-238.
35. Briggs, G.A., Haynes, J.T., Elliott, W.C., and Vanko, D.A., 2001. A study of plagioclase-hosted melt inclusions in the Ordovician Deicke and Millbrig potassium bentonites, Southern Appalachian Basin. Southeastern Geology, v. 40(4), p. 273-284.
36. Roberts, S., Bach, W., Binns, R.A., Vanko, D.A., Yeats, C.J., Teagle, D.A.H., Blacklock, K., Blusztajn, J.S., Boyce, A.J., Cooper, M.J., Holland, N., and McDonald, B., 2003. Contrasting evolution of hydrothermal fluids in the PACMANUS system, Manus Basin: The Sr and S isotope evidence. Geology, v. 31, p. 805-808.
37. Bach, W., Roberts, S.R., Vanko, D.A., Binns, R.A., Yeats, C.J., Craddock, P., and Humphris, S.E., 2003. Controls of fluid chemistry and complexation on rare earth element contents of anhydrite from the PACMANUS seafloor hydrothermal system, Manus Basin, Papua New Guinea. Mineralium Deposita, v. 38(8), p. 916-935.
38. Paulick, H., Vanko, D.A., and Yeats, C.J., 2004. Drill core-based facies reconstruction of a deep-marine, felsic volcano hosting an active hydrothermal system (Pual Ridge, Papua New Guinea, ODP Leg 193). Journal of Volcanology and Geothermal Research, v. 130, p. 31-50.

39. Coggon, R.M., Teagle, D.A.H., Cooper, M.J., and Vanko, D.A., 2004. Linking basement carbonate vein compositions to porewater geochemistry across the eastern flank of the Juan de Fuca Ridge, ODP Leg 168. Earth and Planetary Science Letters, v. 219, p. 111-128.
40. Vanko, D.A., Bach, W., Roberts, S., Yeats, C.J., Scott, S.D., 2004. Fluid inclusion evidence for subsurface phase separation and variable fluid mixing regimes beneath the deep-sea PACMANUS hydrothermal field, Manus Basin back arc rift, Papua New Guinea. Journal of Geophysical Research, v. 109, B03201, doi:10.1029/2003JB002579 [05 March 2004; 14 pages].
41. Vanko, D.A., and Bach, W., 2005. Heating and freezing experiments on aqueous fluid inclusions in anhydrite: recognition and effects of stretching and the low-temperature formation of gypsum. Chemical Geology, v. 223, p. 35-45.
42. Vanko, D.A., 2009. A petrographic and fluid inclusion assessment of hydrothermal alteration of some impactites and crystalline rocks in the Chesapeake Bay impact structure, ICDP-USGS Eyreville-B core. In Gohn, G.S., Koeberl, C., Miller, K.G., and Reimold, W.U., eds., The ICDP-USGS Deep Drilling Project in the Chesapeake Bay Impact Structure: Results from the Eyreville Coreholes. Geological Society of America Special Paper 458, p. 543-557, doi:10.1130/2009.2458(23).
43. Kendrick, M.A., Honda, M., and Vanko, D.A., 2015. Halogens and noble gases in Mathematician Ridge meta-gabbros, NE Pacific: implications for oceanic hydrothermal root zones and global volatile cycles, Contributions to Mineralogy and Petrology, 170:43, doi: 10.1007/s00410-015-1192-x.

Recent Reports and Other Writing

40. Vanko, David A., "How did Hurricane Sandy change Mansion Beach?" Article published in the Block Island Times, July 8, 2013.
41. Gallo, N.D., Certner, R.H., Parikh, N., Cho, H., Gibbons, A., Kim, C., Liu, T., Miller, H., Throwe, T., Wooten, M., Vanko, D.A., and Sellner, K.G., 2014. Efficacy of *Microcystis aeruginosa* removal in deionized and brackish water. In Kim, H.G. (ed), Proceedings of the 15th International Conference on Harmful Algae. International Society for the Study of Harmful Algae and Intergovernmental Oceanographic Commission of UNESCO,
42. Vanko, David A., "Report concludes Maryland can safely 'frack'." Op-Ed piece published in the Baltimore Sun, Nov. 26, 2014. <http://www.baltimoresun.com/news/opinion/bs-ed-fracking-report-20141125-story.html>

Recent Abstracts

96. Vanko, D.A. and Benbow, D.J., 2007. Hydrothermal alteration within deep crater fill material, Chesapeake Bay Impact Structure: A mineral and fluid inclusion study. Geol. Soc. Amer. Abstr. w. Prog., 39(6), p. 452.
97. Vanko, D.A. and Benbow, D.J., 2008. Fluid inclusions in core samples from the crater, Chesapeake Bay Impact Structure, and their implications for post-impact hydrothermal circulation. Ninth Biennial Pan-American Conference on Research on Fluid Inclusions (PACROFI IX), Program and Abstracts, no.15.

98. Cotter, M.J., and Vanko, D.A., 2008. Fluid inclusions in massive anhydrite sampled with ROV Jason II from active deep sea hydrothermal fields in the Manus (back-arc) Basin. Ninth Biennial Pan-American Conference on Research on Fluid Inclusions (PACROFI IX), Program and Abstracts, no. 60.
99. Vanko, D.A., and Thomas, T., 2010. Towson University Robert Noyce Teacher Scholarship Program. National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Conference Program, A55-56.
100. Vanko, D.A. and Thomas, T., 2011. Towson University Robert Noyce Teacher Scholarship Program – Year Two. National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Conference Program, A46.
101. Vanko, D.A. and Thomas, T., 2012. Reflections on the Third Year of the Towson University Robert Noyce Teacher Scholarship Program. National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Conference Program, A43.
102. Vanko, D.A. and Walker, N., 2013. The Towson University Robert Noyce Teacher Scholarship Program – Looking ahead and Lessons Learned. National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Conference Program, A42.
103. Vanko, D.A., 2014. Maryland's approach to potential natural gas development and high-volume hydraulic fracturing of the Marcellus Shale. Geol. Soc. Amer. Abstr. w. Prog., 46(3), p. 59.
104. Kendrick, M.A., Honda, M., and Vanko, D.A., 2015. Subduction of halogens and noble gases: constraints from metagabbros. In 25th Annual V.M. Goldschmidt Conference, Session 21D.
105. Vanko, D.A., 2019. Diverse students succeed in an inclusive academic culture: the role of leadership, policies and targeted investment. Geol. Soc. Amer. Abstr. w. Prog., 51(5), doi: 10.1130/abs/2019AM-334400
<https://gsa.confex.com/gsa/2019AM/webprogram/Paper334400.html>