

Bibliography of Woodford Shale

Brian J. Cardott
Oklahoma Geological Survey

- Abousleiman, Y.N., M. Tran, S. Hoang, C. Bobko, A. Ortega, and F.-J. Ulm, 2007, Geomechanics field and lab characterization of Woodford Shale: the next gas play: Society of Petroleum Engineers, Paper SPE 110120, 14 p.
- Abousleiman, Y.N., M.H. Tran, S.K. Hoang, F.-J. Ulm, C.P. Bobko, and J.A. Ortega, 2008, Study characterizes Woodford Shale: American Oil & Gas Reporter, v. 51, no. 1, p. 106-115.
- Abousleiman, Y., S. Hoang, A. Ortega, and F.-J. Ulm, 2009, Geomechanics field characterization of the two prolific U.S. Mid-West gas plays with advanced wire-line logging tools: Society of Petroleum Engineers, Paper SPE 124428, 19 p.
- Abousleiman, Y.N., M. Tran, S. Hoang, A. Ortega, and F. Ulm, 2010, Geomechanics field characterization of Woodford Shale and Barnett Shale with advanced logging tools and nano-indentation on drilling cuttings: The Leading Edge, v. 29, p. 730-736.
- Abousleiman, Y.N., S.K. Hoang, and C. Liu, 2013, Effects on brittleness of temperature difference between hydraulic fracturing fluid and shale formation – Study on Woodford Shale: AAPG Search and Discovery Article #50878, 5 p.
- Abrams, M.A., and D. Thomas, 2020, Geochemical evaluation of oil and gas samples from the Upper Devonian and Mississippian reservoirs southern Anadarko Basin Oklahoma and its implication for the Woodford Shale unconventional play: Marine and Petroleum Geology, v. 112, 104043.
- Abshire, M.L., N. Riedinger, J.M. Clymer, C. Scott, S. Severmann, S.J. Romaniello, and J.O. Puckette, 2022, Reconstructing the paleoceanographic and redox conditions responsible for variations in uranium content in North American Devonian black shales: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 587, 110763.
- Achang, M., J.C. Pashin, and X. Cui, 2017, The influence of particle size, microfractures, and pressure decay on measuring the permeability of crushed shale samples: International Journal of Coal Geology, v. 183, p. 174-187.
- Adigwe, E.N., 2012, Nitrogen isotopes as indicators of depositional environments: case of the Caney and Woodford shales in the Arkoma Basin, Oklahoma, USA: Stillwater, Oklahoma State University, unpublished M.S. thesis.
- Adler, F.J., 1971, Anadarko basin and central Oklahoma area, *in* Future petroleum provinces of the United States—their geology and potential: AAPG Memoir 15, v. 2, p. 1061-1070.
- Agrawal, A., Y. Wei, and S.A. Holditch, 2012, A technical and economic study of completion techniques in five emerging US gas shales: A Woodford Shale example: SPE Drilling and Completion, v. 27, no. 1, p. 39-49.
- Al Atwah, I., 2015, Organic geochemistry and crude oil source-rock correlation of the Devonian-Mississippian petroleum systems, northern Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 115 p.

- Al Atwah, I., J. Pantano, J. Puckette, K. Arouri, and J.M. Moldowan, 2019, Organic geochemistry and crude oil source rock correlation of Devonian-Mississippian petroleum systems in northern Oklahoma, *in* G.M. Grammer, J.M. Gregg, J.O. Puckette, P. Jaiswal, S.J. Mazzullo, M.J. Pranter, and R.H. Goldstein, eds., Mississippian reservoirs of the Midcontinent: AAPG Memoir 122, p. 301-322.
- Alberts, J., and N.H. Suneson, 2011, Arbuckle Mountains field trip report — The Lazy S Ranch and Arbuckle Wilderness: Oklahoma City Geological Society, Shale Shaker, v. 61, no. 5, p. 272-278.
- Ali, E.E., 2015, Integrated characterization of the Woodford Shale in southwest Cherokee Platform, Oklahoma: Norman, Oklahoma, University of Oklahoma, unpublished M.S. thesis, 104 p.
- Alkhamali, S.A., 2015, Geochemical and clay mineralogical characteristics of the Woodford Shale, Payne County, Oklahoma: Manhattan, Kansas State University, unpublished M.S. thesis.
- Al-Shaieb, Z., R.D. Fritz, J.E. Barrick, P.L. Medlock, and J. Puckette, 1993, Woodford Shale, *in* K.S. Johnson, ed., Hunton Group core workshop and field trip: OGS Special Publication 93-4, p. 196. (Woodford Shale in I-35 roadcut)
- Al-Shaieb, Z., J. Puckette, and P. Blubaugh, 2001, The Hunton Group: sequence stratigraphy, facies, dolomitization, and karstification, *in* K.S. Johnson, ed., Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent, 1999 symposium: OGS Circular 105, p. 17-29. (Woodford isopach map, Anadarko basin, figure 14)
- Al-Shaieb, Z., J. Puckette, P. Deyhim, and A. Close, 2001, Compartmentalization of the overpressured interval in the Anadarko Basin, *in* K.S. Johnson and D. F. Merriam, eds., Petroleum systems of sedimentary basins in the southern Midcontinent, 2000 symposium: OGS Circular 106, p. 121-131.
- Althoff, C., 2009, Depositional megacycles in the Woodford trough of central Oklahoma (abstract): AAPG Mid-Continent Meeting, Official Program, p. 29.
- Althoff, C.D., 2012, Characterization of depositional megacycles in the Woodford trough of central Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 99 p.
- Amorocho Sanchez, J.D., 2012, Sequence stratigraphy and seismic interpretation of the Upper Devonian-Lower Mississippian Woodford Shale in the Cherokee Platform; a characterization approach for unconventional resources: Norman, University of Oklahoma unpublished M.S. thesis, 109 p.
- Amsden, T.W., 1960, Hunton stratigraphy, *part 6 of* Stratigraphy and paleontology of the Hunton Group in the Arbuckle Mountain region: OGS Bulletin 84, 311 p.
- Amsden, T.W., 1967, Silurian and Devonian strata in Oklahoma, *in* Symposium— Silurian-Devonian rocks of Oklahoma and environs: Tulsa Geological Society Digest, v. 35, p. 25-34.
- Amsden, T.W., and T.L. Rowland, 1967, Silurian-Devonian relationship in Oklahoma, *in* D.H. Oswald, ed., International symposium on the Devonian System, vol. 2: Calgary, Alberta Society of Petroleum Geologists, p. 949-959.
- Amsden, T.W., W.M. Caplan, P.L. Hilpman, E.H. McGlasson, T.L. Rowland, and O.A. Wise, Jr., 1967, Devonian of the southern Midcontinent area, United States, *in* D.H. Oswald, ed., International symposium on the Devonian System, vol. 1:

- Calgary, Alberta Society of Petroleum Geologists, p. 913-932. (isopach map of Woodford)
- Amsden, T.W., and G. Klapper, 1972, Misener Sandstone (Middle-Upper Devonian), north-central Oklahoma: AAPG Bulletin, v. 56, p. 2323-2334.
- Amsden, T.W., 1975, Hunton Group (Late Ordovician, Silurian, and Early Devonian) in the Anadarko basin of Oklahoma: OGS Bulletin 121, 214 p.
- Amsden, T.W., 1980, Hunton Group (Late Ordovician, Silurian, and early Devonian) in the Arkoma basin of Oklahoma: OGS Bulletin 129, 136 p.
- Amsden, T.W., 1983, *Coelospira concava* (Hall) from the Pinetop Chert (Early Devonian), Ouachita Mountains, Oklahoma: Journal of Paleontology, v. 57, p. 1244-1260.
- Anderson, J., 2015, A regional stratigraphic synthesis of the Woodford Shale between the Arkoma and Anadarko Basins with an emphasis on sediment transport and deposition across the Nemaha Ridge: Stillwater, Oklahoma State University, unpublished M.S. thesis.
- Andrews, R.D., 2009, Production decline curves and payout thresholds of horizontal Woodford wells in the Arkoma Basin, Oklahoma (part 1): Shale Shaker, v. 60, p. 103-112.
- Andrews, R.D., 2010, Production decline curves and payout thresholds of horizontal Woodford wells in the Arkoma Basin, Oklahoma (part 2): Shale Shaker, v. 60, p. 147-156.
- Arnold, C.A., 1934, *Callixylon whiteanum* sp. Nov., from the Woodford chert of Oklahoma: Botanical Gazette, v. 96, p. 180-185.
- Arnold, C.A., 1947, An introduction to paleobotany: New York, McGraw-Hill Book Company, Inc., 433 p. (*Callixylon* in Woodford, p. 283-285)
- Arnold, T., A. Sneddon, S. Wu, A. Deev, and Y. Tang, 2015, Woodford Shale source rock characterization in a horizontal well: AAPG Search and Discovery Article #51096, 59 p.
- Arnold, T., A. Sneddon, S. Wu, A. Deev, and Y. Tang, 2015, Case study: Woodford Shale source rock characterization by geochemical and SEM evaluation in a horizontal well: Oklahoma City Geological Society, Shale Shaker, v. 66, p. 42-65.
- Ascent Energy, 2006, Woodford/Caney Shale, six wells—OGS Sample Library: Prepared by Ticora Geosciences, Arvada, Colorado, Final Report Reservoir Property Analysis for Ascent Energy, variously paginated. (available at OGS Web site: <http://www.ou.edu/ogs/research/energy/oil-gas>)
- Ataman, O., 2008, Natural fracture systems in the Woodford Shale, Arbuckle Mountains, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 139 p.
http://digital.library.okstate.edu/etd/Ataman_okstate_0664M_10055.pdf
- Atwah, I., S. Sweet, J. Pantano, and A. Knap, 2019, Light hydrocarbon geochemistry: Insight into Mississippian crude oil sources from the Anadarko Basin, Oklahoma, USA: Geofluids, v. 2019, Article ID 2795017, 15 p.
- Atwah, I., J. Puckette, M. Becker, and J.M. Moldowan, 2020, Source-rock reservoirs geochemistry of Devonian-Mississippian mudrocks in central Oklahoma: AAPG Bulletin, v. 104, p. 657-680.

- Atwah, I., O.O. Adeboye, J. Zhang, R. Wilcoxson, and F. Marcantonio, 2023, Linking biomarkers with elemental geochemistry to reveal controls on organic richness in Devonian-Mississippian mudrocks of Oklahoma: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 611, 111355.
- Atwah, I., and S. Sweet, 2023, Petroleum generation kinetics of unconventional Mississippian mudrocks of central Oklahoma: *Frontiers in Earth Science*, 11:1146251.
- Aufill, M., 2007, High resolution magnetic susceptibility of the Oklahoma Woodford Shale and relationship to variations in outcrop spectral-gamma response: Stillwater, OK, Oklahoma State University, unpublished M.S. thesis, 210 p.
- Aufill, M., 2009, A cold phosphatic Woodford Shale (abstract): AAPG Mid-Continent Meeting Official Program, p. 21.
- Badra, H., 2011, Field characterization and analog modeling of natural fractures in the Woodford Shale, southeast Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 78 p.
- Bamijoko, A.O., 2010, Spectrometry and geochemical investigation of selected outcrops of the Chattanooga Shale in the Ozark region of North America: Stillwater, OK, Oklahoma State University, unpublished M.S. thesis, 112 p.
- Barker, C., L. Wang, and E.B. Butler, 1987, Kinetic parameters (E,A) for the thermal degradation of organic matter from the Woodford Shale as a function of maturity [abstract]: American Chemical Society Abstracts of Papers, unpaginated.
- Barker, G.W., and G.D. Wood, 1989, Microplankton and spores from the Woodford Shale (Devonian) of the Tobosa basin, southeast New Mexico-southwestern Texas, U.S.A. [abstract]: American Association of Stratigraphic Palynologists, *Palynology*, v. 13, p. 279.
- Barrick, J.E., and J.N. Haywa, 1987, Conodonts from the Missouri Mountain Shale (Silurian-Devonian) and lower Arkansas novaculite (Devonian), Black Knob Ridge, Oklahoma [abstract]: GSA Abstracts with Programs, v. 19, no. 3, p. 146.
- Barrick, J.E., and G. Klapper, 1990, Stop 2: Henryhouse and Haragan Formations (Late Silurian-Early Devonian) and Woodford Shale (Late Devonian-Early Mississippian), *in* S.M. Ritter, ed., Early and middle Paleozoic conodont biostratigraphy of the Arbuckle Mountains, southern Oklahoma: OGS Guidebook 27, p. 11-13.
- Barrick, J.E., J.N. Haywa-Branch, and D.J. Over, 1990, Stop 6: Woodford Shale (Late Devonian-Early Mississippian), pre-Weldon Shale, Weldon Limestone, and basal Caney Shale (Mississippian); Hass G section, *in* S.M. Ritter, ed., Early and middle Paleozoic conodont biostratigraphy of the Arbuckle Mountains, southern Oklahoma: OGS Guidebook 27, p. 23-25.
- Barrick, J.E., and J.N. Haywa-Branch, 1994, Conodont biostratigraphy of the Missouri Mountain Shale (Silurian-Early Devonian?) and the Arkansas Novaculite (Devonian), Black Knob Ridge, Atoka County, Oklahoma, *in* N.H. Suneson and L.A. Hemish, eds., Geology and resources of the eastern Ouachita Mountains frontal belt and southeastern Arkoma Basin, Oklahoma: Oklahoma Geological Survey, Guidebook 29, p. 161-177.
- Barrick, J.E., and B.D. Meyer, 2019, Silurian-Devonian conodont biostratigraphy in the southern Midcontinent region of North America, *in* S.C. Ruppel, ed., Anatomy of

- a Paleozoic basin: the Permian Basin, USA (v. 1, chapter 6): The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations 285, AAPG Memoir 118, p. 137-165.
- Baruch, E.T., S.C. Löhner, S. Han, D.N. Dewhurst, and A.S. Collins, 2023, Comparing “apples” and “oranges” in the Woodford Shale: Pitfalls of the thermal maturity gradient approach for constraining evolution of mudrock porosity: *Marine and Petroleum Geology*, v. 150, 106161.
- Baskin, D.K., 1997, Atomic H/C Ratio of kerogen as an estimate of thermal maturity and organic matter conversion: *AAPG Bulletin*, v. 81, p. 1437-1450. (Woodford Shale, p. 1440, 1444, 1448)
- Basnett, A.F., 2017, Mudrock chemoprovenance of the Woodford and Chattanooga shales, Oklahoma: University of Tulsa, unpublished M.S. thesis, 170 p. (Eagles Bluff outcrop in Ozarks; Hunton/Woodford quarry in Arbuckles)
- Bauernfeind, P.E., 1980a, The Misener Sandstone in portions of Lincoln and Creek Counties, Oklahoma, part 1: *Shale Shaker*, v. 30, p. 173-185.
- Bauernfeind, P.E., 1980b, The Misener Sandstone in portions of Lincoln and Creek Counties, Oklahoma, part 2: *Shale Shaker*, v. 30, p. 188-197.
- Becerra-Rondon, D.M., 2017, Integrated geological characterization at the bed scale of the Woodford Shale at the I-35 outcrop, southern Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 202 p.
- Becerra, D., H. Galvis, and R. Slatt, 2018, Characterizing the two principal rock types comprising the Woodford Shale resource play: Application to shale geomechanics: *Interpretation*, v. 6, no. 1, p. SC67 – SC84.
- Becker, R.T., and R.H. Mapes, 2010, Uppermost Devonian ammonoids from Oklahoma and their palaeobiogeographic significance: *Acta Geologica Polonica*, v. 60, p. 139-163.
- Bernal, A.S., L.C. Mayorga, A.G. Prada, and R.M. Slatt, 2012, Geological characterization of the Woodford Shale, McAlester Cemetery Quarry, Oklahoma: *Shale Shaker*, v. 63, p. 202-213.
- Bernal, A.S., 2013, Geological characterization of the Woodford Shale, McAlister Cemetery Quarry, Criner Hills, Ardmore Basin, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 141 p.
- Berryman, J.R., 2012, Timing and paragenesis of the calcite fracture fill in the Woodford Shale: Stillwater, Oklahoma State University, unpublished M.S. thesis, 44 p.
- Berryman, J.R., 2013, Timing and paragenesis of the calcite fracture fill in the Woodford Shale: *Shale Shaker*, v. 64, p. 40-54.
- Berryman, R.R., 2012, Constraints on development of anoxia through geochemical facies mapping of Devonian black shales in the Midcontinent: Stillwater, Oklahoma State University, unpublished M.S. thesis, 66 p.
- Blackford, M.A., 2007, Electrostratigraphy, thickness, and petrophysical evaluation of the Woodford Shale, Arkoma Basin, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 84 p.
<http://digital.library.okstate.edu/etd/umi-okstate-2525.pdf>
- Boardman, D.R., II, J. Puckette, and I. Cemen, 2008, Middle and Late Paleozoic organic-rich gas shales of the North American Midcontinent: *AAPG Search and Discovery Article #110069*, 42 p.

http://www.searchanddiscovery.com/pdfz/documents/2008/08108boardman/ndx_boardman.pdf.html

- Boardman, D., J. Puckette, I. Cemen, and A. Cruse, 2009, The “Chattanooga Shale” of the Ozark Uplift region (northeastern Oklahoma, southwestern Missouri, and northern Arkansas) is herein renamed as the Eagles Bluff Shale (abstract): AAPG Mid-Continent Meeting, Official Program, p. 24.
- Boardman, D., J. Puckette, I. Cemen, and L. Watney, 2009, Shelf to basin transect of Middle Paleozoic organic-rich shales of the North American Midcontinent (“Chattanooga,” Woodford and Arkansas Novaculite)(abstract): AAPG Mid-Continent Meeting, Official Program, p. 30.
- Boardman, D.R., III, 2012, Preliminary analysis of phosphate nodules in the Woodford Shale, Late Devonian-Early Mississippian, southern Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 77 p.
- Bond, G.C., and M.A. Kominz, 1991, Disentangling middle Paleozoic sea level and tectonic events in cratonic margins and cratonic basins of North America: *Journal of Geophysical Research*, v. 96, no. B4, p. 6619-6639. (Late Devonian sea-level rise).
- Bonilla, J.V., and M.H. Engel, 1986, Chemical and isotopic redistribution of hydrocarbons during migration; laboratory simulation experiments: *Organic Geochemistry*, v. 10, p. 181-190.
- Bontempi, C.P., 2015, High resolution stratigraphy of thin bedded shales/radiolarites, Woodford Shale, Arbuckle Wilderness area, Murray County, Oklahoma: A new correlation tool: Norman, University of Oklahoma, unpublished M.S. thesis, 81 p.
- Bottoms, B., A. Potra, J.R. Samuelsen, and S.R. Schutter, 2019, Geochemical investigations of the Woodford–Chattanooga and Fayetteville shales: Implications for genesis of the Mississippi Valley-type zinc-lead ores in the southern Ozark Region and hydrocarbon exploration: *AAPG Bulletin*, v. 103, p. 1745-1768.
- Boucot, A.J., 1988, Devonian biogeography: an update, *in* N.J. McMillan, A.F. Embry, and D.J. Glass, eds., *Paleontology, paleoecology and biostratigraphy*, vol. 3 of *Devonian of the world*: Calgary, Canadian Society of Petroleum Geologists, p. 211-227.
- Bramlett, R.R., 1981, The relationship of hydrocarbon production to fracturing in the Woodford Formation of southern Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 106 p.
- Branan, C., 1954, Woodford Shale production on the Caddo anticline: *Shale Shaker*, v. 5, p. 30.
- Branch, A.A., 2007, Comprehensive characterization of a core from an over-mature Woodford Shale in Le Flore County, Oklahoma, and comparison with data from other studies of the Woodford Shale in the Arkoma Basin: Norman, OK, University of Oklahoma, unpublished M.S. thesis, 131 p.
- Braun, R.L., A.K. Burnham, J.G. Reynolds, and J.E. Clarkson, 1991, Pyrolysis kinetics for lacustrine and marine source rocks by programmed micropyrolysis: *Energy and Fuels*, v. 5, p. 192-204.
- Breig, J., C. Perez, and W. Kubik, 2009, Woodford reservoir quality in the western Arkoma Basin (abstract): AAPG Mid-Continent Meeting Official Program, p. 21.

- Brenneman, M.C., and P.V. Smith, Jr., 1958, The chemical relationships between crude oils and their source rocks, *in* L.G. Weeks, ed., *Habitat of oil*: AAPG, p. 818-849.
- Brito, R., and R. Slatt, 2018, Introduction to special section: Characterization of the Woodford Shale: Latest concepts, techniques, and applications: *Interpretation*, v. 6, no. 1, p. SCLi.
- Brito Leonet, R.J., 2019, *The Woodford Shale in the Marietta Basin (Oklahoma and north Texas)*: Norman, University of Oklahoma, unpublished Ph.D. dissertation, 182 p.
- Broadhead, R.F., 2010, The Woodford Shale in southeastern New Mexico: distribution and source rock characteristics: *New Mexico Geology*, v. 32, p. 79-90.
http://geoinfo.nmt.edu/publications/periodicals/nmg/downloads/32/n3/nmg_v32_n3_p79.pdf
- Brown, A., and J. Corrigan, 1997, Petroleum systems, Ardmore basin and Arbuckle Mountains, Oklahoma: Dallas Geological Society, Guidebook for Field Trip #2, 1997 AAPG Annual Convention, 88 p.
- Brown, A.A., 2001, Petroleum charge to the Mill Creek syncline and adjacent areas, southern Oklahoma (abstract): *AAPG Bulletin*, v. 85, p. 385.
- Brown, W.G., R.C. Grayson, Jr., W.H. Jamieson, Jr., J.T. Altum, and J. Hightower, 1985, Tectonism and sedimentation in the Arbuckle Mountain region, southern Oklahoma aulacogen: Waco, Texas, Baylor University, 44 p.
- Buchardt, B., and M.D. Lewan, 1990, Reflectance of vitrinite-like macerals as a thermal maturity index for Cambrian-Ordovician Alum Shale, southern Scandinavia: *AAPG Bulletin*, v. 74, p. 394-406. (compares vitrinite-like material in Alum Shale to Woodford Shale)
- Buckner, N., R.M. Slatt, B. Coffey, and R.J. Davis, 2009, Stratigraphy of the Woodford Shale from behind-outcrop drilling, logging, and coring: AAPG Annual Convention, San Antonio, TX. AAPG Search and Discovery Article No. 50147, 24 slides.
http://www.searchanddiscovery.net/documents/2009/50147buckner/ndx_buckner.pdf
- Bullard, F.M., 1926, Geology of Marshall County, Oklahoma: OGS Bulletin 39, 101 p. (Woodford, p. 15-16, outcrop at 34-35, T.4S., R.4E.)
- Burruss, R.C., and J.R. Hatch, 1987, Regional variations in crude oil geochemistry, Anadarko basin, Oklahoma, Texas, and Kansas—evidence for multiple sources, mixing, and migration distances [abstract]: *AAPG Bulletin*, v. 71, p. 535.
- Burruss, R.C., and J.R. Hatch, 1989, Geochemistry of oils and hydrocarbon source rocks, greater Anadarko basin: evidence for multiple sources of oils and long-distance oil migration, *in* K.S. Johnson, ed., *Anadarko basin symposium, 1988*: OGS Circular 90, p. 53-64.
- Burwood, R., R.J. Drozd, H.I. Halpern, and R.A. Sedivy, 1988, Carbon isotopic variations of kerogen pyrolyzates: *Organic Geochemistry*, v. 12, p. 195-205.
- Butler, E.B., and C. Barker, 1986, Kinetic study of bitumen release from heated shale: *Geochimica et Cosmochimica Acta*, v. 50, p. 2281-2288.
- Caldwell, C.D., 2011, Lithostratigraphy of the Woodford Shale, Anadarko Basin, west-central Oklahoma: AAPG Search and Discovery Article #50518, 25 p.

- http://www.searchanddiscovery.com/documents/2011/50518caldwell/ndx_caldwell.pdf
- Caldwell, C.D., and P.G. Johnson, 2013, Anadarko Woodford Shale: Improving production by understanding lithologies/mechanical stratigraphy and optimizing completion design: AAPG Search and Discovery Article #80288, 32 p. http://www.searchanddiscovery.com/pdfz/documents/2013/80288caldwell/ndx_caldwell.pdf.html
- Caldwell, C., 2014, Anadarko Woodford Shale: How to tie a shoe: AAPG Search and Discovery Article #80408, 52 p. http://www.searchanddiscovery.com/pdfz/documents/2014/80408caldwell/ndx_caldwell.pdf.html
- Callner, S.A., 2014, An integrated approach to understanding sedimentary structures and depositional processes in Devonian-Mississippian black shale: The Woodford Shale and associated strata in the southern Midcontinent: Stillwater, Oklahoma State University, unpublished M.S. thesis, 91 p.
- Campbell, J.A., D.P. Brown, B.J. Cardott, and A. Mycek-Memoli, 1993, Petroleum production from potentially fractured pre-Pennsylvanian reservoirs in Oklahoma, in K.S. Johnson and J.A. Campbell, eds., Petroleum-reservoir geology in the southern Midcontinent, 1991 symposium: OGS Circular 95, p. 199-205. (Woodford, p. 204)
- Cardona-Valencia, L.F., 2014, Integrated characterization of the Woodford Shale in the southern Cherokee Platform, Oklahoma: Norman, Oklahoma, University of Oklahoma, unpublished M.S. thesis, 98 p.
- Cardott, B.J., and M.W. Lambert, 1985, Thermal maturation by vitrinite reflectance of Woodford Shale, Anadarko basin, Oklahoma: AAPG Bulletin, v. 69, p. 1982-1998.
- Cardott, B.J., and M.W. Lambert, 1987, Thermal maturation by vitrinite reflectance of Woodford Shale, Anadarko basin, Oklahoma: reply: AAPG Bulletin, v. 71, p. 898-899.
- Cardott, B.J., 1989, Thermal maturation of the Woodford Shale in the Anadarko basin, in K.S. Johnson, ed., Anadarko basin symposium, 1988: OGS Circular 90, p. 32-46. <http://www.ogs.ou.edu/pubsscanned/Circulars/Circular90.pdf>
- Cardott, B.J., W.J. Metcalf, III, and J.L. Ahern, 1990, Thermal maturation by vitrinite reflectance of Woodford Shale near Washita Valley fault, Arbuckle Mountains, Oklahoma, in V.F. Nuccio and C.E. Barker, eds., Applications of thermal maturity studies to energy exploration: SEPM, Rocky Mountain Section, p. 139-146.
- Cardott, B.J., 1992, Bibliography of Woodford Shale (Upper Devonian-Lower Mississippian) and age-equivalent rocks of Oklahoma: Oklahoma Geology Notes, v. 52, p. 4-16.
- Cardott, B.J., and J.R. Chaplin, 1993, Guidebook for selected stops in the western Arbuckle Mountains, southern Oklahoma: Oklahoma Geological Survey, Special Publication 93-3, 55 p. <http://ogs.ou.edu/docs/specialpublications/SP93-3.pdf>
- Cardott, B.J., 1994, Thermal maturity of surface samples from the Frontal and Central belts, Ouachita Mountains, Oklahoma, in N.H. Suneson and L.A. Hemish, eds., Geology and resources of the eastern Ouachita Mountains Frontal belt and southeastern Arkoma basin, Oklahoma: OGS Guidebook 29, p. 271-276.

- Cardott, B.J., 2001, Thermal maturation of the Woodford Shale in south-central Oklahoma (abstract), *in* K.S. Johnson, ed., Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent, 1999 symposium: OGS Circular 105, p. 170.
- Cardott, B.J., 2001, Thermal maturation of the Woodford Shale in eastern Oklahoma (abstract), *in* K.S. Johnson and D.F. Merriam, eds., Petroleum systems of sedimentary basins in the southern Midcontinent, 2000 symposium: OGS Circular 106, p. 193.
- Cardott, B.J., 2005, Overview of unconventional energy resources of Oklahoma, *in* B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 7-18.
- Cardott, B.J., 2007, Overview of Woodford gas-shale play in Oklahoma: OGS, Woodford Gas Shale Conference, May 23, 2007, PowerPoint presentation. <http://www.ogs.ou.edu/pdf/WoodfordOverview.pdf>.
- Cardott, B.J., 2009, Application of vitrinite reflectance to the Woodford gas-shale play in Oklahoma (abstract): AAPG Mid-Continent Meeting Official Program, p. 21.
- Cardott, B.J., 2012, Thermal maturity of Woodford Shale gas and oil plays, Oklahoma, USA: International Journal of Coal Geology, v. 103, p. 109-119. <http://www.sciencedirect.com/science/article/pii/S0166516212001632>
- Cardott, B.J., 2013, Woodford Shale: From hydrocarbon source rock to reservoir: AAPG Search and Discovery Article #50817, 85 slides. http://www.searchanddiscovery.com/pdfz/documents/2013/50817cardott/ndx_cardott.pdf.html
- Cardott, B.J., 2014, Woodford Shale play update: Expanded extent in the oil window: AAPG Search and Discovery Article #80409, 51 slides. http://www.searchanddiscovery.com/pdfz/documents/2014/80409cardott/ndx_cardott.pdf.html
- Cardott, B.J., 2015, Using thermal maturity to identify the most productive part of the oil window to target in the Woodford Shale: 2nd Annual Woodford Liquids-Rich Horizontal Targets Congress, presentation, 23 slides. http://ogs.ou.edu/docs/presentations/OGS-presentation-cardott-2nd_woodford_congress_2015.pdf
- Cardott, B.J., C.R. Landis, and M.E. Curtis, 2015, Post-oil solid bitumen network in the Woodford Shale, USA — A potential primary migration pathway: International Journal of Coal Geology, v. 139, p. 106-113.
- Cardott, B.J., 2017, Oklahoma shale resource plays: Oklahoma Geological Survey, Oklahoma Geology Notes, v. 76, no. 2, p. 21-30.
- Cardott, B.J., and J.B. Comer, 2021, Woodford Shale (Upper Devonian to Lower Mississippian): From hydrocarbon source rock to reservoir: Oklahoma Geological Survey, Bulletin 152, 108 p. <https://www.ou.edu/ogs/publications/bulletins>
- Cardwell, A.I., 1977, Petroleum source-rock potential of Arbuckle and Ellenburger Groups, southern Mid-Continent, United States: Quarterly of the Colorado School of Mines, v. 72, no. 3, 134 p.
- Carr, J.L., III, 1987, The thermal maturity and clay mineralogy of the Chattanooga Formation along a transect from the Ozark Uplift to the Arkoma Basin: Fayetteville, University of Arkansas, unpublished M.S. thesis, 76 p.

- Carr, J.L., III, 1987, The thermal maturity of the Chattanooga Formation along a transect from the Ozark uplift to the Arkoma basin: *Shale Shaker*, v. 38, p. 32-40.
- Carter, L.S., S.A. Kelley, D.D. Blackwell, and N.D. Naeser, 1998, Heat flow and thermal history of the Anadarko basin, Oklahoma: *AAPG Bulletin*, v. 82, p. 291-316.
- Castro Manrique, B.J., 2018, Structural geology of the Woodford Shale in the southeastern Anadarko Basin, Grady County, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 45 p.
- Cecil, K.A., 2016, Origin and characteristics of Devonian-Mississippian novaculite chert in Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 154 p.
- Cemen, I., A. Sagnak, and S. Akthar, 2001, Geometry of the triangle zone and duplex structure in the Wilburton gas field area of the Arkoma basin, southeastern Oklahoma, *in* K.S. Johnson, ed., *Pennsylvanian and Permian geology and petroleum in the southern Midcontinent, 1998 symposium: OGS Circular 104*, p. 87-98.(Woodford detachment in Wilburton triangle zone)
- Cemen, I., O. Ataman, J. Puckette, and D. Boardman, 2009, Natural surface fractures in the Woodford gas-shale, southern Oklahoma (abstract): *AAPG Annual Convention and Exhibition, Abstracts Volume*, p. 38.
- Cemen, I., O. Attaman, J. Puckette, and D. Boardman, 2009, Fold related fractures in Woodford Shale outcrops along the Arbuckle overturned anticline, Arbuckle Mountains, Oklahoma (abstract): *AAPG Mid-Continent Meeting, Official Program*, v. 24.
- Chain, A.R., 2012, Stratigraphy and composition of the Woodford Shale in depositionally updip and downdip wells, Anadarko Basin, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 118 p. (1-14H Teague core; 1-20H Ridenour core)
- Chalmers, G.R., R.M. Bustin, and I.M. Power, 2012, Characterization of gas shale pore systems by porosimetry, pycnometry, surface area, and field emission scanning electron microscopy/transmission electron microscopy image analyses: Examples from the Barnett, Woodford, Haynesville, Marcellus, and Doig units: *AAPG Bulletin*, v. 96, p. 1099-1119.
- Chouparova, E., K. Rottmann, and R.P. Philp, 2001, Geochemical study of oils produced from four Pennsylvanian reservoirs in Prairie Gem field, central Oklahoma, *in* K.S. Johnson, ed., *Pennsylvanian and Permian geology and petroleum in the southern Midcontinent, 1998 symposium: OGS Circular 104*, p. 105-113.
- Coddington, K., 2013, The role of heavy minerals in the thermal maturation of the Woodford Shale, Anadarko Basin, Oklahoma: Manhattan, KS, Kansas State University, unpublished M.S. thesis.
- Coleman, S.M., and D.W. Jordan, 2018, Correlation of chemostratigraphy, total organic carbon, sequence stratigraphy, and bioturbation in the Woodford Shale of south-central Oklahoma: *Interpretation*, v. 6, no. 1, p. SC43 – SC54.
- Comer, J.B., and H.H. Hinch, 1987, Recognizing and quantifying expulsion of oil from the Woodford Formation and age-equivalent rocks in Oklahoma and Arkansas: *AAPG Bulletin*, v. 71, p. 844-858.
- Comer, J.B., 1991, Stratigraphic analysis of the Upper Devonian Woodford Formation, Permian basin, West Texas and southeastern New Mexico: Bureau of Economic Geology, Report of Investigations 201, 63 p.

- Comer, J.B., 1992, Organic geochemistry and paleogeography of Upper Devonian formations in Oklahoma and western Arkansas, in K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 70-93.
<http://www.ogs.ou.edu/pubsscanned/Circulars/Circular93.pdf>
- Comer, J.B., 2005, Facies distribution and hydrocarbon production potential of Woodford Shale in the southern Midcontinent, in B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 51-62.
- Comer, J.B., 2007, Reservoir characteristics and gas production potential of Woodford Shale in the Southern Midcontinent [Microsoft PowerPoint presentation]: IUScholarWorks [Indiana University's digital repository], <<http://hdl.handle.net/2022/1826>>, date accessed.
- Comer, J.B., 2008, Reservoir characteristics and production potential of the Woodford Shale: World Oil, v. 229, no. 8, p. 83-89.
- Comer, J.B., 2008, Woodford Shale in southern Midcontinent, USA—Transgressive system tract marine source rocks on an arid passive continental margin with persistent oceanic upwelling: AAPG Annual Convention, San Antonio, TX, poster, 3 panels. <https://scholarworks.iu.edu/dspace/handle/2022/3263>
- Comer, J.B., 2008, Woodford Shale in southern Midcontinent, USA—Transgressive system tract marine source rocks on an arid passive continental margin with persistent oceanic upwelling: AAPG Annual Convention, San Antonio, TX, AAPG Search and Discovery Article No. 90078, abstract.
<http://www.searchanddiscovery.com/abstracts/html/2009/eastern/abstracts/comer.htm?q=%2BtextStrip%3Acomer+textStrip%3A90078>
- Comer, J.B., 2009, The forms of quartz and dolomite in Woodford Shale of the southern Midcontinent, USA: Indicators of paleoclimate, paleogeography, paleoceanography, and depositional processes (abstract): AAPG Mid-Continent Meeting Official Program, p. 21.
- Comer, J.B., 2012, Woodford Shale and the evaporate connection — the significance of aridity and hypersalinity in organic matter productivity and preservation: Geological Society of America Abstracts with Programs, v. 44/5, p. 6.
- Conant, L.C., and V.E. Swanson, 1961, Chattanooga Shale and related rocks of central Tennessee and nearby areas: U.S. Geological Survey Professional Paper 357, 91 p.
- Connock, G.T., 2015, Paleoenvironmental interpretation of the Woodford Shale, Wyche Farm shale pit, Pontotoc County, Arkoma Basin, Oklahoma with primary focus on water column structure: Norman, University of Oklahoma, unpublished M.S. thesis, 253 p.
- Connock, G.T., T.X. Nguyen, and R.P. Philp, 2018, The development and extent of photic-zone euxinia concomitant with Woodford Shale deposition: AAPG Bulletin, v. 102, p. 959-986.
- Cook, T.D., and A.W. Bally, eds., 1975, Stratigraphic atlas of North and Central America: Princeton University Press, 272 p.
- Cooper, C.L., 1931a, Conodonts from the Arkansas novaculite, Woodford Formation, Ohio Shale, and Sunbury Shale: Journal of Paleontology, v. 5, p. 143-151.

- Cooper, C.L., 1931b, New conodonts from the Woodford Formation of Oklahoma: *Journal of Paleontology*, v. 5, p. 230-243.
- Cooper, C.L., 1932, A crustacean fauna from the Woodford Formation of Oklahoma: *Journal of Paleontology*, v. 6, p. 346-352.
- Cooper, C.L., 1935, Conodonts from the upper and middle Arkansas novaculite, Mississippian, at Caddo Gap, Arkansas: *Journal of Paleontology*, v. 9, p. 307-315.
- Craddock, P.R., M.D. Prange, and A.E. Pomerantz, 2017, Kerogen thermal maturity and content of organic-rich mudrocks determined using stochastic linear regression models applied to diffuse reflectance IR Fourier transform spectroscopy (DRIFTS): *Organic Geochemistry*, v. 110, p. 122-133.
- Craddock, P.R., K.D. Bake, and A.E. Pomerantz, 2018, Chemical, molecular, and microstructural evolution of kerogen during thermal maturation: Case study from the Woodford Shale of Oklahoma: *Energy & Fuels*, v. 32, p. 4859-4872.
- Craddock, P.R., A. Haecker, K.D. Bake, and A.E. Pomerantz, 2020, Universal curves describing the chemical and physical evolution of Type II kerogen during thermal maturation: *Energy Fuels*, v. 34, p. 15,217-15,233.
- Craig, W.W., O. Wise, and J.D. McFarland, III, 1984, A guidebook to the post-St. Peter Ordovician and the Silurian and Devonian rocks of north-central Arkansas: Arkansas Geological Commission, 49 p. (Chattanooga Shale, p. 21-23)
- Crick, R.E., B.B. Ellwood, D.J. Over, R. Feist, and C. Girard, 2001, Magnetostratigraphic susceptibility of the Frasnian-Famennian boundary (Upper Devonian) in southern Oklahoma and its relationship to the type area in southern France, *in* K.S. Johnson, ed., *Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent*, 1999 symposium: OGS Circular 105, p. 71-82.
- Crossey, L.J., E.S. Hagen, R.C. Surdam, and T.W. Papoint, 1986, Correlation of organic parameters derived from elemental analysis and programmed pyrolysis of kerogen, *in* D.L. Gautier, ed., *Roles of organic matter in sediment diagenesis*: SEPM Special Publication 38, p. 35-45.
- Cruse, A., S.T. Paxton, and M. Aufill, 2009, Constraints on sedimentation rates of the Woodford Shale from modeling of uranium diffusion (abstract): AAPG Mid-Continent Meeting Official Program, p. 21.
- Cullen, A., 2018, My favorite outcrop(s): The Woodford Shale SH-77D: Le Couer de Arbuckle Mountains, OK: Oklahoma City Geological Society, *Shale Shaker*, v. 69, no. 5, p. 258-268. (see Ghosh and others, 2019)
- Cullen, A., and G. Miller, 2020, Scratch Hill, Atoka, Oklahoma: Proposed type section for the lower (Early to Middle Devonian) Arkansas Novaculite in Oklahoma: Oklahoma City Geological Society, *Shale Shaker*, v. 71, no. 4, p. 162-172.
- Cullen, A., 2020, Woodford Shale mercury anomalies from the McAlister Cemetery Quarry, Oklahoma: A North American test of the volcanic-trigger hypothesis for Late Devonian mass extinctions: Oklahoma City Geological Society, *Shale Shaker*, v. 71, p. 188-203.
- Cullen, A., D. Hull, and M. Turko, 2021, An intact thirty four foot long petrified log in the Woodford Shale, Oklahoma: A question of preserving geological heritage: Oklahoma City Geological Society, *Shale Shaker*, v. 72, no. 4, p. 118-129.

- Cullen, A., and D. Hull, 2023, An atlas of Woodford Shale outcrops in southern Oklahoma: Oklahoma Geological Survey, Guidebook 40, 196 p.
- Curtis, M.E., B.J. Cardott, C.H. Sondergeld, and C.S. Rai, 2012, Development of organic porosity in the Woodford Shale with increasing thermal maturity: *International Journal of Coal Geology*, v. 103, p. 26-31.
- Damsté, J.S.S., T.I. Eglinton, J.W. de Leeuw, and P.A. Schenck, 1989, Organic sulphur in macromolecular sedimentary organic matter: I. Structure and origin of sulphur-containing moieties in kerogen, asphaltenes and coal as revealed by flash pyrolysis: *Geochimica et Cosmochimica Acta*, v. 53, p. 873-889. (Woodford kerogen)
- Davis, H.G., 1985, Wrenching and oil migration, Mervine field, Kay County, Oklahoma [abstract]: *AAPG Bulletin*, v. 69, p. 248.
- Davis, H.G., 1994, Petroleum geology of the Woodford Formation, Anadarko basin, Oklahoma and Texas [abstract]: *AAPG Annual Convention, Official Program*, v. 3, p. 132.
- DeGarmo, C.D., 2015, Geochemical characterization of the Woodford Shale (Devonian-Mississippian), McAlister Cemetery Quarry, Criner Hills Uplift, Ardmore Basin, Oklahoma: Norman, Oklahoma, University of Oklahoma, unpublished M.S. thesis, 198 p.
- DeGarmo, C., Nguyen, T., and Philp, R. P., 2016, A new look at the organic geochemical variability in the Woodford Shale of the Ardmore Basin: Paleoweathering and organic matter source: *AAPG Search and Discovery Article #41799*, 28 slides.
- Dennis, N.L.F., 2004, Woodford Shale in portions of Logan County, Oklahoma: Feasibility of defining an algorithm for mapping and exploration: Stillwater, Oklahoma State University, unpublished M.S. thesis, 82 p.
- Derby, J.R., F.J. Podpechan, J. Andrews, and S. Ramakrishna, 2002, U.S. DOE-sponsored study of West Carney Hunton field, Lincoln & Logan Counties, Oklahoma: A preliminary report (part I): *OCGS Shale Shaker*, v. 53, no. 1, p. 9-19.
- Dixon, J.A., 2013, Facies analysis of the Woodford Shale in north central Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 146 p.
- Dixon, J.A., 2015, Facies analysis of the Woodford Shale in north central Oklahoma: *OCGS Shale Shaker*, v. 66, p. 266-279.
- Doerr, E.L., and W.L. Manger, 2004, Trace element evidence of a volcanic source for Lower Mississippian chert and novaculite, southern Midcontinent (abstract): *GSA Abstracts with Programs*, v. 36, no. 5, p. 370.
- Dong, T., and N.B. Harris, 2020, The effect of thermal maturity on porosity development in the Upper Devonian-Lower Mississippian Woodford Shale, Permian Basin, US: Insights into the role of silica nanospheres and microcrystalline quartz on porosity preservation: *International Journal of Coal Geology*, v. 217, 103346.
- Drake, R.M., II, J.R. Hatch, C.J. Schenk, R.R. Charpentier, T.R. Klett, P.A. Le, H.M. Leathers, M.E. Brownfield, S.B. Gaswirth, K.R. Marra, J.K. Pitman, C.J. Potter, and M.E. Tennyson, 2015, Assessment of undiscovered oil and gas resources in the Cherokee Platform Province area of Kansas, Oklahoma, and Missouri, 2015:

- U.S. Geological Survey Fact Sheet 2015-3054, 2 p.
<http://pubs.er.usgs.gov/publication/fs20153054>
- Drake, R.M., II, and J.R. Hatch, 2021, Geologic assessment of undiscovered oil and gas resources in the Cherokee Platform province area of Kansas, Oklahoma, and Missouri: U.S. Geological Survey Scientific Investigations Report 2020-5110, 39 p. <https://pubs.er.usgs.gov/publication/sir20205110>
- Duncan, D.C., and V.E. Swanson, 1965, Organic-rich shale of the United States and world land areas: U.S. Geological Survey Circular 523, 30 p.
- Duncan, R.C., 1983, Geochemical investigation of the Chattanooga Shale, northwest Arkansas: Fayetteville, University of Arkansas, unpublished M.S. thesis, 184 p.
- Eglinton, T.I., L.S. Sinninghe Damste, W. Pool, J.W. De Leeuw, G. Eijkel, and J.J. Boon, 1992, Organic sulphur in macromolecular sedimentary organic matter. II. Analysis of distributions of sulphur-containing pyrolysis products using multivariate techniques: *Geochimica et Cosmochimica Acta*, v. 56, p. 1545-1560.
- EIA 2011, Woodford Shale play, Arkoma Basin, Oklahoma (includes structure and isopach contours, http://www.eia.gov/oil_gas/rpd/shaleusa6.pdf)
- EIA, 2011, Woodford Shale play, Anadarko Basin, Oklahoma and Texas (includes structure and isopach contours, http://www.eia.gov/oil_gas/rpd/shaleusa7.pdf)
- EIA, 2011, Woodford Shale play, Ardmore Basin, Oklahoma (includes structure and isopach contours, http://www.eia.gov/oil_gas/rpd/shaleusa8.pdf)
- Ekwunife, I.C., 2017, Assessing mudrock characteristics, high-resolution chemostratigraphy, and sequence stratigraphy of the Woodford Shale in the McAlister Cemetery Quarry, Ardmore Basin, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 153 p.
- Ellison, S.P., 1950, Subsurface Woodford black shale, West Texas and southeast New Mexico: Texas University Bureau of Economic Geology Report of Investigations, v. 7, 22 p.
- Elsteil, M.O., 2011, Determination of in-situ minimum horizontal stress in Woodford Shale formation from non-sonic logs in the Arkoma Basin, Oklahoma: University of Tulsa, unpublished M.S. thesis.
- Engel, M.H., S.W. Imbus, and J.E. Zumberge, 1988, Organic geochemical correlation of Oklahoma crude oils using R- and Q-mode factor analysis: *Organic Geochemistry*, v. 12, p. 157-170.
- Ettensohn, F.R., and L.S. Barron, 1981, Depositional model for the Devonian-Mississippian black shales of North America: a paleoclimatic-paleogeographic approach, *in* T.G. Roberts, ed., *Economic geology, structure*, vol. 2 of GSA, Cincinnati 1981, Field Trip Guidebooks: American Geological Institute, p. 344-357.
- Ettensohn, F.R., and L.S. Barron, 1982, A tectonic-climatic approach to the deposition of the Devonian-Mississippian black-shale sequence of North America: *Proceedings 1982 Eastern Oil Shale Symposium*, p. 5-37.
- Evans, S.C., J.P. Allen, and D.P. Brown, 2018, Preliminary structure map of the Woodford Shale of Oklahoma: Oklahoma Geological Survey, Open-File Report 17-2018, 1 sheet, scale 1:750,000.
<http://www.ou.edu/content/dam/ogs/documents/data/OF17-2018.pdf>

- Fay, R.O., 1989, Geology of the Arbuckle Mountains along Interstate 35, Carter and Murray Counties, Oklahoma: OGS Guidebook 26, 50 p.
- Fay, R.O., S.A. Friedman, K.S. Johnson, J.F. Roberts, W.D. Rose, and P.K. Sutherland, 1979, The Mississippian and Pennsylvanian (Carboniferous) Systems in the United States—Oklahoma: U.S. Geological Survey Professional Paper 1110-R, p. R1-R35.
- Feldmann, R.M., and C.E. Schweitzer, 2010, The oldest shrimp (Devonian: Famennian) and remarkable preservation of soft tissue: *Journal of Crustacean Biology*, v. 30, p. 629-635.
- Fertl, W.H., and H.H. Rieke, III, 1980, Gamma ray spectral evaluation techniques identify fractured shale reservoirs and source-rock characteristics: *Journal of Petroleum Technology*, v. 32, p. 2053-2062.
- Fertl, W., and G. Chilingarian, 1990, Hydrocarbon resource evaluation in the Woodford Shale using well logs: *Journal of Petroleum Science and Engineering*, v. 4, p. 347-357.
- Filby, R.H., 1994, Origin and nature of trace element species in crude oils, bitumens and kerogens: implications for correlation and other geochemical studies, *in* J. Parnell, ed., *Geofluids: origin, migration and evolution of fluids in sedimentary basins*: London, Geological Society Special Publication 78, p. 203-219. (Woodford Shale, p. 206)
- Fishman, N.S., G.S. Ellis, A.R. Boehlke, S.T. Paxton, and S.O. Egenhoff, 2013, Gas storage in the Upper Devonian–Lower Mississippian Woodford Shale, Arbuckle Mountains, Oklahoma: How much of a role do chert beds play?, *in* J.-Y. Chatellier and D.M. Jarvie, eds., *Critical assessment of shale resource plays*: AAPG Memoir 103, p. 81-107.
- Foltz, K., 2015, Petrographic and petrophysical characterization of the Woodford Shale: northern shelf, Anadarko Basin, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis.
- Forde, S., 2016, Cana-Woodford resilience: *Oil and Gas Investor*, v. 36, no. 1.
- Forsman, J.P., and J.M. Hunt, 1958, Insoluble organic matter (kerogen) in sedimentary rocks of marine origin, *in* L.G. Weeks, ed., *Habitat of oil*: AAPG, p. 747-778.
- Frazier, W.J., and D.R. Schwimmer, 1987, Devonian events: the Arkansas/Caballos novaculite, *in* *Regional stratigraphy of North America*: New York, Plenum Press, p. 246.
- Frederickson, E.A., 1957, Geologic map of the Criner Hills area, Oklahoma: OGS Map GM-4, scale 1:20,000. (Woodford in Criner Hills)
- Frezon, S.E., and E.E. Glick, 1959, Pre-Atoka rocks of northern Arkansas: U.S. Geological Survey Professional Paper 314-H, p. 171-187. (Chattanooga Shale in Arkansas)
- Frezon, S.E., 1962, Correlation of Paleozoic rocks from Coal County, Oklahoma, to Sebastian County, Arkansas: OGS Circular 58, 53 p.
- Fritz, R.D., and E.A. Beaumont, 2001, Depositional environment and sequence stratigraphy of Silurian through Mississippian strata in the Midcontinent, *in* K.S. Johnson, ed., *Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent, 1999 symposium*: OGS Circular 105, p. 173.

- Galvis Portilla, H., D. Becerra-Rondon, D. Duarte, and R. Slatt, 2016, Rock and fracture characterization of the Woodford Shale along the I-35 outcrop: AAPG Search and Discovery Article #51240, 3 p.
http://www.searchanddiscovery.com/pdfz/documents/2016/51240galvis/ndx_glavis.pdf.html
- Galvis Portilla, H.A., 2017, Detailed lithostratigraphic characterization and sequence stratigraphy of a complete Woodford Shale outcrop section in southern Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 155 p.
- Galvis, H., D. Becerra, and R. Slatt, 2018, Lithofacies and stratigraphy of a complete Woodford Shale outcrop section in south central Oklahoma: Geologic considerations for the evaluation of unconventional shale reservoirs: Interpretation, v. 6, no. 1, p. SC15 – SC27.
- Galvis-Portilla, H., D. Becerra-Rondon, P.K. Pedersen, and R.M. Slatt, 2019, Multi-scale integration of mudstone properties in interbedded reservoirs, insights into additional criteria for evaluating unconventional reservoirs: Examples from the Duvernay Formation (Alberta, Canada) and the Woodford Shale (Oklahoma, USA): Unconventional Resources Technology Conference, URTEC 500, 18 p.
- Gaswirth, S.B., and D.K. Higley, 2013, Petroleum system analysis of the Hunton Group in West Edmond field, Oklahoma: AAPG Bulletin, v. 97, p. 1163-1179.
- Gautier, D.L., 2012, Strategy for assessment of European gas shales: AAPG Search and Discovery Article #80208, 37 p.
http://www.searchanddiscovery.com/documents/2012/80208gautier/ndx_gautier.pdf
- Gentzis, T., H. Carvajal-Ortiz, S.G. Ocubalidet, and B. Wawak, 2017, Organic petrology characteristics of selected shale oil and shale gas reservoirs in the USA: Examples from “The Magnificent Nine”, in I. Suárez-Ruiz, and J.G. Mendonça Filho, eds., The role of organic petrology in the exploration of conventional and unconventional hydrocarbon systems: Sharjah, U.A.E., Bentham Science Publishers, p. 131-168.
- Ghosh, S.G., 2017, Integrated studies on Woodford Shale natural fracture attributes, origin, and their relation to hydraulic fracturing: Norman, University of Oklahoma, unpublished PhD dissertation, 264 p.
- Ghosh, S., J.N. Hooker, C.P. Bontempi, and R.M. Slatt, 2018, High-resolution stratigraphic characterization of natural fracture attributes in the Woodford Shale, Arbuckle Wilderness and US-77D outcrops, Murray County, Oklahoma: Interpretation, v. 6, no. 1, p. SC29 – SC41.
- Ghosh, S., H.A. Galvis-Portilla, C.M. Klockow, and R.M. Slatt, 2018, An application of outcrop analogues to understanding the origin and abundance of natural fractures in the Woodford Shale: Journal of Petroleum Science and Engineering, v. 164, p. 623-639.
- Ghosh, S., and R.M. Slatt, 2019, Tectonic joint size, abundance, and connectivity: Examples from Woodford Shale and Hunton Limestone: Oklahoma City Geological Society, Shale Shaker, v. 70, p. 112-136.
- Ghosh, S., D. Becerra, and R. Slatt, 2019, Discussion of: My favorite outcrop(s): The Woodford Shale SH-77D: Le Couer de Arbuckle Mountains, O.K.: Oklahoma City Geological Society, Shale Shaker, v. 70, p. 138-143.

- Girty, G.H., 1909, The fauna of the Caney Shale of Oklahoma: U.S. Geological Survey Bulletin 377, 106 p. (fauna in Woodford)
- Glash, S.J., 1987, Paleo-depth of burial of surface-exposed Paleozoic carbonates in Arbuckle Mountains, Oklahoma: Brooklyn College, C.U.N.Y., unpublished M.A. thesis, 83 p.
- Glash, S.J., and G.M. Friedman, 1988, Paleodepth of burial: case history of exposed Paleozoic carbonates in Arbuckle Mountains, Oklahoma [abstract]: AAPG Bulletin, v. 72, p. 962-963.
- Godoy, T.J., P. Li, and M.E. Ratchford, 2011, Exploration for the Arkansas Novaculite reservoir, in the southern Ouachita Mountains, Arkansas: AAPG Search and Discovery Article #10337, 25 p.
http://www.searchanddiscovery.com/documents/2011/10337godoy/ndx_godoy.pdf
- Goldstein, A., Jr., 1959, Cherts and novaculites of Ouachita facies, *in* H.A. Ireland, ed, Silica in sediments—a symposium: SEPM Special Publication 7, p. 135-149.
- Goral, J., and I. Miskovic, 2015, A workflow for multi-scale modeling and simulation transport phenomena in Woodford Shale rock matrix: Unconventional Resources Technology Conference, URTEC 2152959, 10 p.
- Goral, J., I. Miskovic, J. Gelb, and M. Marsh, 2016, Correlative x-ray and electron microscopy for multi-scale characterization of heterogeneous shale reservoir pore systems, *in* T. Olson, ed., Imaging unconventional reservoir pore systems: AAPG Memoir 112, p. 77-88.
- Gould, C.N., 1925, Index to the stratigraphy of Oklahoma: OGS Bulletin 35, 115 p. (Woodford Chert on p. 22)
- Gross, J.S., S.A. Thompson, B.L. Claxton, and M.B. Carr, 1995, Reservoir distribution and exploration potential of the Spiro Sandstone in the Choctaw trend, Arkoma basin, Oklahoma and Arkansas: AAPG Bulletin, v. 79, p. 159-185. (Woodford as source rock, p. 178).
- Guo, Y., 2010, Seismic attributes illumination of the Woodford Shale, Arkoma Basin, Oklahoma: Norman, Oklahoma, University of Oklahoma, unpublished M.S. thesis, 53 p.
- Guo, Y., K. Zhang, and K.J. Marfurt, 2010, Seismic attribute illumination of Woodford Shale faults and fractures, Arkoma Basin, OK: SEG Annual Meeting, p. 1372-1376.
- Gupta, I., C. Rai, C. Sondergeld, and D. Devegowda, 2017, Rock typing in Eagle Ford, Barnett, and Woodford formations: Unconventional Resources Technology Conference, URTEC 2669624, 20 p.
<http://archives.datapages.com/data/urtec/2017/2669624.html>
- Gupta, I., C. Rai, C. Sondergeld, and D. Devegowda, 2018, Rock typing in the Upper Devonian-Lower Mississippian Woodford Shale Formation, Oklahoma, USA: Interpretation, v. 6, no. 1, p. SC55 – SC66.
- Gupta, N., S. Sarkar, and K.J. Marfurt, 2011, Seismic characterization of the Woodford Shale in the Anadarko Basin: SEG Annual Meeting, p. 1083-1087.
- Gupta, N., 2012, Multi-scale characterization of the Woodford Shale in west-central Oklahoma: from scanning electron microscope to 3D seismic: Norman, University of Oklahoma, unpublished Ph.D. dissertation, 148 p.

- Gupta, N., C.S. Rai, and C.H. Sondergeld, 2012, Integrated petrophysical characterization of the Woodford Shale in Oklahoma: SPWLA conference paper, p. 250-285.
- Gupta, N., S. Sarkar, and K.J. Marfurt, 2013, Seismic attribute driven integrated characterization of the Woodford Shale in west-central Oklahoma: Interpretation, v. 1, issue 2, p. SB85-SB96.
- Guy-Ohlson, D., 1996, Chapter 7 Green and blue-green algae, 7B – Prasinophycean algae, *in* J. Jansonius and D.C. McGregor, eds., Palynology: principles and applications: American Association of Stratigraphic Palynologists Foundation, v. 1, p. 181-189. (*Tasmanites*)
- Hackley, P.C., and B.J. Cardott, 2016, Application of organic petrography in North American shale petroleum systems: A review: International Journal of Coal Geology, v. 163, p. 8-51. <http://ogs.ou.edu/docs/articles/IJCG-V163-P8-51.pdf>
- Hackley, P.C., 2017, Application of organic petrology in high maturity shale gas systems, *in* I. Suárez-Ruiz, and J.G. Mendonça Filho, eds., The role of organic petrology in the exploration of conventional and unconventional hydrocarbon systems: Sharjah, U.A.E., Bentham Science Publishers, p. 206-236.
- Haines, L., 2006, Activity builds in Woodford Shale: Supplement to Oil & Gas Investor, January 2006, p. 17.
- Haines, L., 2006, Unconventional gas resources: the Woodford Shale: Oil and Gas Investor, v. 26, no. 8, p. 79-81.
- Hair, T.J., 2012, Constructing a geomechanical model of the Woodford Shale, Cherokee Platform, Oklahoma, USA: Effects of confining stress and rock strength on fluid flow: Fort Worth, Texas Christian University, unpublished M.S. thesis, 68 p.
- Hair, T., H. Alsleben, M. Enderlin, and N. Donovan, 2012, Constructing a geomechanical model of the Woodford Shale, Cherokee Platform, Oklahoma, USA: Effects of confining stress and rock strength on fluid flow: AAPG Search and Discovery Article #50716, 2 p. http://www.searchanddiscovery.com/documents/2012/50716hair/ndx_hair.pdf
- Ham, W.E., 1959, Correlation of pre-Stanley strata in the Arbuckle-Ouachita Mountain regions, *in* The geology of the Ouachita Mountains, a symposium: Dallas Geological Society and Ardmore Geological Society, p. 71-86.
- Ham, W.E., and others, 1973, Regional geology of the Arbuckle Mountains, Oklahoma: OGS Special Publication 73-3, 61 p.
- Hanzel, J., 2014, Lidar-based fracture characterization: An outcrop-scale study of the Woodford Shale, McAlister shale pit, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 72 p.
- Hasbrook, N., 2015, Micro porosity of the Woodford Shale in Canadian and Washington Counties, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 106 p. (Anthis 2 core; 1-20H Ridenour core)
- Hasbrook, S., 2015, Geologic characterization of the Woodford Shale across the Arbuckle Uplift counties, south central Oklahoma: Norman, Oklahoma, University of Oklahoma, unpublished M.S. thesis, 103 p.
- Hass, W.H., 1951, Age of Arkansas novaculite: AAPG Bulletin, v. 35, p. 2526-2541.

- Hass, W.H., 1956, Conodonts from the Arkansas novaculite, Stanley shale, and Jackfork sandstone: Ardmore Geological Society Guidebook, Ouachita Mountain Field Conference, p. 25-33.
- Hass, W.H., and J.W. Huddle, 1965, Late Devonian and Early Mississippian age of the Woodford Shale in Oklahoma as determined by conodonts, *in* Geological Survey research: U.S. Geological Survey Professional Paper 525-D, p. 125-132.
- Hatch, J.R., D.D. Rice, R.C. Burruss, J.W. Schmoker, and J.L. Clayton, 1986, Thermal maturity modeling and geochemical characterization of hydrocarbon source rocks, oils, and natural gases of the Anadarko basin, *in* L.M.H. Carter, ed., USGS research on energy resources—1986, program and abstracts: U.S. Geological Survey Circular 974, p. 21-23.
- Hatch, J.R., J.D. King, and T.A. Daws, 1989, Geochemistry of Cherokee Group oils of southeastern Kansas and northeastern Oklahoma: Kansas Geological Survey Subsurface Geology Series 11, 20 p.
- Heasler, H.P., and R.C. Surdam, 1989, Thermal and hydrocarbon maturation modeling of the Pismo and Santa Mario basins, coastal California, *in* N.D. Naeser, and T.H. McCulloh, eds., Thermal history of sedimentary basins: New York, Springer-Verlag, p. 297-309.
- Hemmesch, N.T., N.B. Harris, C.A. Mnich, and D. Selby, 2014, A sequence-stratigraphic framework for the Upper Devonian Woodford Shale, Permian Basin, west Texas: AAPG Bulletin, v. 98, p. 23-47.
- Henbest, L.G., 1936, Radiolaria in the Arkansas novaculite, Caballos novaculite, and Bigfork chert: Journal of Paleontology, v. 10, p. 76-78.
- Henderson, S., 2013, Woodford Shale development in the Ardmore Basin, Oklahoma: Initial thoughts on beginning an infill drilling program: Presentation at OGS Oklahoma Shale Gas and Oil Workshop, November 20, 2013, http://ogs.ou.edu/docs/meetings/OGS-Workshop-Shale_Gas_7_March_2013-Henderson.pdf
- Hendrick, S.J., 1992, Vitrinite reflectance and deep Arbuckle maturation at Wilburton field, Latimer County, Oklahoma, *in* K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 176-184.
- Hester, T.C., and J.W. Schmoker, 1987a, Determination of organic content from formation-density logs, Devonian-Mississippian Woodford Shale, Anadarko basin, Oklahoma: U.S. Geological Survey Open-File Report 87-20, 11p.
- Hester, T.C., and J.W. Schmoker, 1987b, Formation resistivity as an indicator of oil generation in black shales [abstract]: AAPG Bulletin, v. 71, p. 1007.
- Hester, T.C., H.L. Sahl, and J.W. Schmoker, 1988, Cross sections based on gamma-ray, density, and resistivity logs showing stratigraphic units of the Woodford Shale, Anadarko basin, Oklahoma: U.S. Geological Survey Miscellaneous Field Studies Map MF-2054, 2 sheets.
- Hester, T.C., J.W. Schmoker, and H.L. Sahl, 1990, Log-derived regional source-rock characteristics of the Woodford Shale, Anadarko basin, Oklahoma: U.S. Geological Survey Bulletin 1866-D, 38 p.
- Hester, T.C., J.W. Schmoker, and H.L. Sahl, 1990, Woodford Shale in the Anadarko Basin: Could it be another 'Bakken type' horizontal target?: Oil and Gas Journal, v. 88, no. 49, p. 73-78.
- Hester, T.C., and J.W. Schmoker, 1991, Regional geologic characteristics relevant to horizontal drilling, Woodford Shale, Anadarko basin, Oklahoma [abstract]: AAPG Bulletin, v. 75, p. 1128.

- Hester, T.C., J.W. Schmoker, and H.L. Sahl, 1992, Structural controls on sediment distribution and thermal maturation of the Woodford Shale, Anadarko basin, Oklahoma, *in* K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 321-326.
- Hester, T.C., J.W. Schmoker, and H.L. Sahl, 1992, Tectonic controls on deposition and source-rock properties of the Woodford Shale, Anadarko basin, Oklahoma; loading, subsidence, and forebulge development, *in* C.H. Thorman, ed., Application of structural geology to mineral and energy resources of the central and western United States: U.S. Geological Survey Bulletin 2012, p. B1-B11.
- Hester, T.C., and J.W. Schmoker, 1993, Regional geology of the Woodford Shale, Anadarko basin, Oklahoma—an overview of relevance to horizontal drilling, *in* K.S. Johnson and J.A. Campbell, eds., Petroleum-reservoir geology in the southern midcontinent, 1991 symposium: OGS Circular 95, p. 74-81.
- Higley, D.K., S.B. Gaswirth, M.M. Abbott, R.R. Charpentier, T.A. Cook, G.S. Ellis, N.J. Gianoutsos, J.R. Hatch, T.R. Klett, P. Nelson, M.J. Pawlewicz, O.N. Pearson, R.M. Pollastro, and C.J. Schenk, 2011, Assessment of undiscovered oil and gas resources of the Anadarko Basin Province of Oklahoma, Kansas, Texas, and Colorado, 2010: U.S. Geological Survey Fact Sheet 2011–3003, 2 p.
- Higley, D.K., 2013, 4D petroleum system model of the Mississippian System in the Anadarko Basin Province, Oklahoma, Kansas, Texas, and Colorado, U.S.A.: RMAG, *The Mountain Geologist*, v. 50, p. 81-98.
- Higley, D.K., 2014, Thermal maturation of petroleum source rocks in the Anadarko Basin Province, Colorado, Kansas, Oklahoma, and Texas, *in* D.K. Higley, compiler, Petroleum systems and assessment of undiscovered oil and gas in the Anadarko Basin Province, Colorado, Kansas, Oklahoma, and Texas — USGS Province 58: U.S. Geological Survey Digital Data Series DDS-69-EE, chapter 3, 52 p. <https://pubs.usgs.gov/dds/dds-069/dds-069-ee/>
- Higley, D.K., T.A. Cook, and M.J. Pawlewicz, 2014, Petroleum systems and assessment of undiscovered oil and gas in the Anadarko Basin Province, Colorado, Kansas, Oklahoma, and Texas —Woodford Shale assessment units, *in* D.K. Higley, compiler, Petroleum systems and assessment of undiscovered oil and gas in the Anadarko Basin Province, Colorado, Kansas, Oklahoma, and Texas — USGS Province 58: U.S. Geological Survey Digital Data Series DDS-69-EE, chapter 6, 24 p. <https://pubs.usgs.gov/dds/dds-069/dds-069-ee/>
- Holbrook, D.F., and C.G. Stone, 1978, Arkansas novaculite—a silica resource, *in* K.S. Johnson and J.A. Russell, eds., Thirteenth annual forum on the geology of industrial minerals: OGS Circular 79, p. 51-58.
- Holden, P.N., P. Sundararaman, and M.J. Gaffey, 1991, Estimation of porphyrin concentration in the kerogen fraction of shales using high-resolution reflectance spectroscopy: *Geochimica et Cosmochimica Acta*, v. 55, p. 3893-3899.
- Honess, C.W., 1923, Geology of the southern Ouachita Mountains of Oklahoma, parts 1 and 2: OGS Bulletin 32, 355 p.
- Horsfield, B., 1989, Practical criteria for classifying kerogens: some observations from pyrolysis-gas chromatography: *Geochimica et Cosmochimica Acta*, v. 53, p. 891-901.

- Hoskins, J.H., and A.T. Cross, 1952, The petrification flora of the Devonian-Mississippian black shale: *The Palaeobotanist*, v. 1, p. 215-238.
- Houseknecht, D.W., W.A. Rouse, S.T. Paxton, J.C. Mars, and B. Fulk, 2014, Upper Devonian-Lower Mississippian stratigraphic framework of the Arkoma Basin and distribution of potential source-rock facies in the Woodford-Chattanooga and Fayetteville-Caney shale-gas systems: *AAPG Bulletin*, v. 98, p. 1739-1759.
- Hu, H., T. Zhang, J.D. Wiggins-Camacho, G.S. Ellis, M.D. Lewan, and X. Zhang, 2015, Experimental investigation of changes in methane adsorption of bitumen-free Woodford Shale with thermal maturation induced by hydrous pyrolysis: *Marine and Petroleum Geology*, v. 59, p. 114-128.
- Huffman, G.G., 1958, Geology of the flanks of the Ozark Uplift: *OGS Bulletin 77*, 281 p. (Chattanooga Shale, p. 38-40)
- Huffman, G.G., 1959, Pre-Desmoinesian isopachous and paleogeologic studies in central Mid-Continent region: *AAPG Bulletin*, v. 43, p. 2541-2574.
- Huffman, G.G., 1960, Regional relations of pre-Desmoinesian rocks, central mid-continent region: Lawrence, Kansas Geological Society Guidebook, p. 48-71. (Upper Devonian isopach)
- Huffman, G.G., and J.M. Starke, Jr., 1960, Noel shale in northeastern Oklahoma: *OGS Oklahoma Geology Notes*, v. 20, p. 159-163. (Division of Chattanooga Formation into Sylamore Sandstone member and Noel Black Shale member)(Sylamore Sandstone was named for Sylamore Creek in Stone County, Arkansas; see Hasenmueller, 1993, *USGS Bulletin 1909*, p. C6)
- Huffman, G.G., and J.M. Starke, Jr., 1960, A new fossil plant locality in the Sylamore member, Chattanooga Formation, northeastern Cherokee County, Oklahoma: *Oklahoma Geology Notes*, v. 20, p. 89-91.
- Huffman, G.G., T.A. Hart, L.J. Olson, J.D. Currier, and R.W. Ganser, 1978, Geology and mineral resources of Bryan County, Oklahoma: *OGS Bulletin 126*, 113 p.
- Huffman, G.G., K.F. Bridges, R.W. Ganser, A.M. Holtzman, Jr., and M.L. Merritt, 1987, Geology and mineral resources of Marshall County, Oklahoma: *Oklahoma Geological Survey Bulletin 142*, 126 p. (Woodford Shale exposed along Turkey Creek, p. 18-20; 58)
- Hull, D., and A. Cullen, 2023, Preliminary assessment of the phosphate and rare earth element potential in the Upper Woodford Shale on the Lawrence Uplift, Ada, Oklahoma: AAPG Midcontinent Section meeting, poster.
- Hunt, J.M., and G.W. Jamieson, 1958, Oil and organic matter in source rocks of petroleum, *in* L.G. Weeks, ed., *Habitat of oil*: AAPG, p. 735-746.
- Hunt, J.M., 1961, Distribution of hydrocarbons in sedimentary rocks: *Geochimica et Cosmochimica Acta*, v. 22, p. 37-49.
- Hunt, J.M., M.D. Lewan, and R.J.-C. Hennet, 1991, Modeling oil generation with time-temperature index graphs based on the Arrhenius equation: *AAPG Bulletin*, v. 75, p. 795-807.
- Hunt, J.M., and R.J.-C. Hennet, 1992, Modeling petroleum generation in sedimentary basins, *in* J.K. Whelan and J.W. Farrington, eds., *Organic matter productivity: accumulation, and preservation in Recent and ancient sediments*: New York, Columbia University Press, p. 20-52. (Woodford Shale, p. 25-28)

- Hussain, M., and M.A. Bloom, 1991, Pyrolysis and hydrocarbon source bed potential of the Upper Devonian Woodford Shale, Hovey Channel, southern Permian basin, West Texas [abstract]: AAPG Bulletin, v. 75, p. 599.
- Imbus, S.W., M.H. Engel, and J.E. Zumberge, 1987, A geochemical correlation study of Oklahoma crude oils using multivariate statistical method [abstract]: AAPG Bulletin, v. 71, p. 570.
- Infante Paez, L., 2015, Seismically-determined distribution of total organic carbon (TOC) in the Woodford Shale through integrated reservoir characterization, Payne County, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 79 p.
- Infante-Paez, L., L.-F. Cardona, B. McCullough, and R. Slatt, 2017, Seismic analysis of paleotopography and stratigraphic controls on total organic carbon: Rich sweet spot distribution in the Woodford Shale, Oklahoma, USA: Interpretation, v. 5, no. 1, p. T33-T47.
- Iztan, Y.H., 1985, Geochemical correlation between crude oils from Misener reservoirs and potential source rocks in central and north-central Oklahoma: University of Tulsa, unpublished M.S. thesis, 191 p.
- Jacobi, D., J. Breig, B. LeCompte, M. Kopal, G. Hursan, F. Mendez, S. Bliven, and J. Longo, 2009, Effective geochemical and geomechanical characterization of shale gas reservoirs from the wellbore environment: Caney and the Woodford Shale: Society of Petroleum Engineers, Annual Technical Conference and Exhibition, SPE 124231, 20 p.
- Janssen, K.W., 2017, A study of the effects of organic matter on illitization in the Woodford Shale, Oklahoma and Kansas: Manhattan, Kansas State University, unpublished M.S. thesis, 79 p.
- Jaques, R.C., 1993, Graphitization of organic matter and its relation to wire-line log response, Arkoma Basin, Oklahoma and Arkansas: Columbia, University of Missouri, unpublished M.S. thesis, 88 p.
- Jensen, F.S., T.L. Thompson, and J.R. Howe, 2001, Discovery of economic fractured source-rock reservoirs in the Devonian and Mississippian of Oklahoma, *in* K.S. Johnson, ed., Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent, 1999 symposium: OGS Circular 105, p. 177.
- Johnson, K.S., and others, 1988, Southern Midcontinent region, *in* L.L. Sloss, ed., Sedimentary cover—North America craton; U.S.: GSA, The Geology of North America, v. D-2, p. 307-359. (Reprinted as OGS Special Publication 89-2)
- Johnson, K.S., and B.J. Cardott, 1992, Geologic framework and hydrocarbon source rocks of Oklahoma, *in* K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 21-37.
<http://ogs.ou.edu/docs/circulars/C93.pdf>
- Jolly, G.D., 1988, Correlation of the Woodford Formation in south-central Oklahoma using gamma-ray scintillation measurements of the natural background radiation: Nacogdoches, Texas, Stephen F. Austin State University, unpublished M.S. thesis, 154 p.
- Jones, D.L., and L.P. Knauth, 1979, Oxygen isotopic and petrographic evidence relevant to the origin of the Arkansas novaculite: Journal of Sedimentary Petrology, v. 49, p. 581-597.

- Jones, L.C., 2017, An integrated analysis of sequence stratigraphy, petroleum geochemistry, and Devonian mass extinction events in the Woodford Shale, southern Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 198 p.
- Jones, P.J., 1986, The petroleum geochemistry of the Pauls Valley area, Anadarko basin, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 175 p.
- Jones, P.J., and R.P. Philp, 1990, Oils and source rocks from Pauls Valley, Anadarko basin, Oklahoma, U.S.A.: Applied Geochemistry, v. 5, p. 429-448.
- Jordan, L., 1957, Subsurface stratigraphic names of Oklahoma: OGS Guidebook 6, 220 p.
- Jordan, L., 1959, Oil and gas in Creek County, Oklahoma, *in* M.C. Oakes, Geology and mineral resources of Creek County, Oklahoma: OGS Bulletin 81, p. 61-100.
- Kareem, M.R., 1992, Geologically constrained modeling of the temporal and spatial evolution of hydrocarbon generation in the Anadarko basin: Norman, University of Oklahoma, unpublished M.S. thesis, 191 p.
- Katz, B.J., L.M. Liro, J.E. Lacey, and H.W. White, 1982, Time and temperature formation: application of Lopatin's method to petroleum exploration: discussion: AAPG Bulletin, v. 66, p. 1150-1151.
- Katz, B.J., and L.M. Liro, 1987, Thermal maturation by vitrinite reflectance of Woodford Shale, Anadarko basin, Oklahoma: discussion: AAPG Bulletin, v. 71, p. 897.
- Keller, W.D., G.W. Viele, and C.H. Johnson, 1977, Texture of Arkansas novaculite indicates thermally induced metamorphism: Journal of Sedimentary Petrology, v. 47, p. 834-843.
- Keller, W.D., C.G. Stone, and A.L. Hoersch, 1985, Textures of Paleozoic chert and novaculite in the Ouachita Mountains of Arkansas and Oklahoma and their geological significance: GSA Bulletin, v. 96, p. 1353-1363.
- Kelly, B.K., W.L. Manger, and G. Klapper, 1997, Conodonts from the Chattanooga shale and the Devonian-Mississippian boundary, southern Ozark region [abstract]: GSA Abstracts with Programs, v. 29, no. 6, p. A-159.
- Kennedy, M.J., S.C. Löhr, S.A. Fraser, and E.T. Baruch, 2014, Direct evidence for organic carbon preservation as clay-organic nanocomposites in a Devonian black shale; from deposition to diagenesis: Earth and Planetary Science Letters, v. 388, p. 59-70.
- Kibria, M.G., Q. Hu, H. Liu, Y. Zhang, and J. Kang, 2018, Pore structure, wettability, and spontaneous imbibition of Woodford Shale, Permian Basin, West Texas: Marine and Petroleum Geology, v. 91, p. 735-748.
- Kilian, B.J., 2012, Sequence stratigraphy of the Woodford Shale, Anadarko Basin, Oklahoma: Implications on regional Woodford target correlation: Norman, University of Oklahoma, unpublished M.S. thesis, 102 p.
- Kim, D., R.P. Philp, and R.P. Sorenson, 2010, Geochemical characterization of solid bitumen in the Chesterian (Mississippian) sandstone reservoir of the Hitch field, southwest Kansas: AAPG Bulletin, v. 94, p. 1031-1057.
- Kirkland, D.W., R.E. Denison, D.M. Summers, and J.R. Gormly, 1992, Geology and organic geochemistry of the Woodford Shale in the Criner Hills and western Arbuckle Mountains, *in* K.S. Johnson and B.J. Cardott, eds., Source rocks in the

- southern Midcontinent, 1990 symposium: OGS Circular 93, p. 38-69.
<http://ogs.ou.edu/docs/circulars/C93.pdf>
- Klockow, C.M., 2017, Structural survey of the Woodford Shale at McAlister Cemetery quarry, Carter County, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 45 p.
- Ko, L.T., S.C. Ruppel, R.G. Loucks, P.C. Hackley, T. Zhang, and D. Shao, 2018, Pore-types and pore-network evolution in Upper Devonian-Lower Mississippian Woodford and Mississippian Barnett mudstones: Insights from laboratory thermal maturation and organic petrology: *International Journal of Coal Geology*, v. 190, p. 3-28.
- Ko, L.T.-W., R.G. Loucks, K.L. Milliken, T. Zhang, P.C. Hackley, R.M. Reed, S.C. Ruppel, and P. Smith, 2019, How depositional environment, diagenesis, and thermal maturity affect the evolution and significance of organic and mineral pore systems in unconventional oil and gas reservoirs: Current understanding and future research: *AAPG Search and Discovery Article #80705*, 50 p.
http://www.searchanddiscovery.com/pdfz/documents/2019/80705ting-wei%20ko/ndx_ting-wei%20ko.pdf.html
- Kominz, M.A., and G.C. Bond, 1991, Unusually large subsidence and sea-level events during middle Paleozoic time: new evidence supporting mantle convection models for supercontinent assembly: *Geology* v. 19, p. 56-60.
- Kondas, M., P. Filipiak, M. Paszkowski, A. Piszczowska, R.D. Elmore, I. Jelonek, and M. Kasprzyk, 2018, The organic matter composition of the Devonian/Carboniferous deposits (south flank of Arbuckle Anticline, Oklahoma, USA): *International Journal of Coal Geology*, v. 198, p. 88-99.
- Kornacki, A.S., and J.E. Dahl, 2016, Evidence some oil accumulations in the Woodford Formation and the Meramec Formation received an additional charge of very dry thermal gas: *AAPG Search and Discovery*, Article No. 41879, 16 p.
http://www.searchanddiscovery.com/pdfz/documents/2016/41879kornacki/ndx_kornacki.pdf.html
- Kornacki, A.S., and D.B. Eddins, 2016, Using SARA data to reduce uncertainty about the type of petroleum fluid in the Woodford Formation and the Meramec Formation in the Anadarko Basin and the Arkoma Basin, Oklahoma: *AAPG Search and Discovery*, Article No. 41845, 5 p.
http://www.searchanddiscovery.com/pdfz/documents/2016/41845kornacki/ndx_kornacki.pdf.html
- Kornacki, A.S., M.A. Sutcliffe, and D.B. Eddins, 2016, Using geochemical data to show a gas-shale well is producing crude oil—not retrograde condensate: *Unconventional Resources Technology Conference*, URTeC 2436190, 12 p.
- Krystyniak, A.M., S.T. Paxton, and W.S. Coffey, 2005, Detailed outcrop gamma-ray characterization of the Woodford Shale, south-central Oklahoma (abstract): *AAPG 2005 Annual Convention Abstracts Volume*, p. A76.
- Krystyniak, A.M., 2005, Outcrop-based gamma-ray characterization of the Woodford Shale of south-central Oklahoma: Stillwater, OK, Oklahoma State University, unpublished M.S. thesis, 145 p.
- Kumar, V., M.E. Curtis, N. Gupta, C.H. Sondergeld, and C.S. Rai, 2012, Estimation of elastic properties of organic matter and Woodford Shale through nano-

- indentation measurements: Society of Petroleum Engineers Canadian Unconventional Resources conference, SPE 162778, 11 p.
- Kumar, V., C. Sondergeld, and C.S. Rai, 2015, Effect of mineralogy and organic matter on mechanical properties of shale: Interpretation, v. 3, no. 3, p. SV9-SV15. (nanoindentation)
- Kuo, L.-C., H.H. Hardy, and A.S.C. Owili-Eger, 1995, Quantitative modeling of organic matter connectivity in source rocks using fractal geostatistical analysis: Organic Geochemistry, v. 23, p. 29-42.
- Kvale, E.P., and J. Bynum, 2014, Regional upwelling during Late Devonian Woodford deposition in Oklahoma and its influence on hydrocarbon production and well completion: AAPG Search and Discovery Article #80410, 34 p.
http://www.searchanddiscovery.com/pdfz/documents/2014/80410kvale/ndx_kvale.pdf.html
- Lambert, M.W., 1992, Internal stratigraphy of the Chattanooga Shale in Kansas and Oklahoma, *in* K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 94-105.
- Lambert, M.W., 1992, Lithology and geochemistry of shale members within the Devonian-Mississippian Chattanooga (Woodford) Shale, Midcontinent, U.S.A.: Lawrence, University of Kansas, unpublished Ph.D. dissertation, 163 p. (Kansas Geological Survey Open-File Report 92-26)
- Lambert, M.W., 1993, Internal stratigraphy and organic facies of the Devonian-Mississippian Chattanooga (Woodford) Shale in Oklahoma and Kansas, *in* B.J. Katz and L.M. Pratt, eds., Source rocks in a sequence stratigraphic framework: AAPG Studies in Geology 37, p. 163-176.
- Lambert, M.W., 1994, Revised Upper Devonian and Lower Mississippian stratigraphic nomenclature in Kansas, *in* D.L. Baars, compiler, Revision of stratigraphic nomenclature in Kansas: Kansas Geological Survey Bulletin 230, p. 75-77.
- Landais, P., R. Michels, and M. Elie, 1994, Are time and temperature the only constraints to the simulation of organic matter maturation?: Organic Geochemistry, v. 22, p. 617-630.
- Landis, C.R., 1990, Organic maturation, primary migration, and clay mineralogy of selected Permian basin shales: Texas Tech University, unpublished Ph.D. dissertation, 227 p.
- Landis, C.R., S. Ganopadhyay, and W.L. Borst, 1991, Photochemistry of an unusual exsudatinite in Permian basin shales, *in* J.A. Curiale, R. Alexander, and P.W. Brooks, eds., Organic geochemistry of hydrocarbon basins: Chemical Geology, v. 93, p. 111-128.
- Landis, C.R., A. Trabelsi, and G. Strathearn, 1992, Hydrocarbon potential of selected Permian basin shales as classified within the organic facies concept, *in* K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 229-247.
- Landis, E.R., 1958, Radioactivity and uranium content of Devonian and Mississippian black shales in the central Midcontinent area: U.S. Geological Survey report TEI-740, p. 202-208.

- Landis, E.R., 1962, Uranium and other trace elements in Devonian and Mississippian black shales in the central midcontinent area: U.S. Geological Survey Bulletin 1107-E, p. 289-336.
- Laughrey, C.D., P.F. Purrazzella, and K.N. Hooghan, 2017, Petroleum geochemistry and mudstone diagenesis of the Woodford Shale, Anadarko Basin, USA – An integrated approach: Unconventional Resources Technology Conference, URTeC 2691776, 12 p.
<http://archives.datapages.com/data/urtec/2017/2691776.html>
- Leatherock, C., and N.W. Bass, 1936, Chattanooga shale in Osage County, Oklahoma, and adjacent areas: AAPG Bulletin, v. 20, p. 91-101.
- Le Calvez, J., R. Downey, and M. McClay, 2009, Real-time borehole-based microseismic monitoring of simultaneous hydraulic fracturing treatment in the Woodford Shale Formation (abstract): AAPG Mid-Continent Meeting, Official Program, p. 30.
- Lee, W., 1940, Subsurface Mississippian rocks of Kansas: Kansas Geological Survey Bulletin 33, 114 p.
- Levorsen, A.I., 1929, Greater Seminole district, Seminole and Pottawatomie Counties, Oklahoma, *in* S. Powers, ed., Structure of typical American oil fields: AAPG, v. 2, p. 315-361. (Chattanooga shale, p. 326-328)
- Lewan, M.D., J.C. Winters, and J.H. McDonald, 1979, Generation of oil-like pyrolyzates from organic-rich shales: Science, v. 203, no. 4383, p. 897-899.
- Lewan, M.D., 1983, Effects of thermal maturation on stable organic carbon isotopes as determined by hydrous pyrolysis of Woodford Shale: Geochimica et Cosmochimica Acta, v. 47, p. 1471-1479.
- Lewan, M.D., 1985, Evaluation of petroleum generation by hydrous pyrolysis experimentation: Philosophical Transactions of the Royal Society of London, series A, v. 315, p. 123-134.
- Lewan, M.D., 1986, Stable carbon isotopes of amorphous kerogens from Phanerozoic sedimentary rocks: Geochimica et Cosmochimica Acta, v. 50, p. 1583-1591.
- Lewan, M.D., 1987, Petrographic study of primary petroleum migration in the Woodford Shale and related rock units, *in* B. Doligez, ed., Migration of hydrocarbons in sedimentary basins: Paris, Collection Colloques et Séminaires, Editions Technip, p. 113-130.
- Lewan, M.D., 1993, Laboratory simulation of petroleum formation: hydrous pyrolysis, *in* M.H. Engel and S.A. Macko, eds., Organic geochemistry: principles and applications: New York, Plenum Press, p. 419-442.
- Lewan, M.D., 1994, Assessing natural oil expulsion from source rocks by laboratory pyrolysis, *in* L.B. Magoon and W.G. Dow, eds., The petroleum system—From source to trap: AAPG Memoir 60, p. 201-210.
- Lewan, M.D., and J.B. Fisher, 1994, Organic acids from petroleum source rocks, *in* E.D. Pittman and M.D. Lewan, eds., Organic acids in geological processes: New York, Springer-Verlag, p. 70-114.
- Lewan, M.D., and T.E. Ruble, 2002, Comparison of petroleum generation kinetics by isothermal hydrous and nonisothermal open-system pyrolysis: Organic Geochemistry, v. 33, p. 1457-1475.

- Li, P., M.E. Ratchford, and D.M. Jarvie, 2010, Geochemistry and thermal maturity analysis of the Fayetteville Shale and Chattanooga Shale in the western Arkoma Basin of Arkansas: Arkansas Geological Survey, Information Circular 40, 205 p., CD-ROM.
- Li, X., and J. Horitz, 2022, Kinetic and equilibrium reactions on natural and laboratory generation of thermogenic gases from Type II marine shale: *Geochimica et Cosmochimica Acta*, v. 333, p. 263-283. (Woodford)
- Liborius, A., and A. Sneddon, 2017, Organic-inorganic distribution of the Woodford Shale in Kingfisher County, STACK play, northern Oklahoma: AAPG Search and Discovery Article #51444, 22 p.
http://www.searchanddiscovery.com/pdfz/documents/2017/51444liborius/ndx_liborius.pdf.html
- Lin, L.H., 1987, Effect of biodegradation on tar sand bitumen of south Woodford area, Carter County, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 91 p.
- Lin, L.H., G.E. Michael, G. Kovachev, H. Zhu, R.P. Philp, and C.A. Lewis, 1989, Biodegradation of tar-sand bitumens from the Ardmore and Anadarko basins, Carter County, Oklahoma: *Organic Geochemistry*, v. 14, p. 511-523.
- Liu, C., P. Liu, G.P. McGovern, and J. Horita, 2019, Molecular and intramolecular isotope geochemistry of natural gases from the Woodford Shale, Arkoma Basin, Oklahoma: *Geochimica et Cosmochimica Acta*, v. 255, p. 188-204.
- Liu, L., R.P. Philp, and T.X. Nguyen, 2017, Origin and history of the oils in the Lawton oil field, southwestern Oklahoma: AAPG Bulletin, v. 101, p. 205-232.
- Liu, M., 2015, The utilization of carbazole and benzocarbazole as possible indicators of relative migration distances for Woodford oils in the Anadarko Basin: Norman, University of Oklahoma, unpublished M.S. thesis, 125 p.
- Liu, M., and R.P. Philp, 2023, Utilization of pyrrolic compounds as indicators of secondary migration for Woodford oils in the Anadarko Basin, Oklahoma, USA: *Journal of Earth Science*.
- Liu, S., 2011, Geochemical characterization and comparison of condensates from the Barnett Shale, Fort Worth Basin, Texas and the Woodford Shale, Arkoma Basin, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 170 p.
- Lo, H.B., and B.J. Cardott, 1994, Detection of natural weathering of Upper McAlester coal and Woodford Shale, Oklahoma, U.S.A.: *Organic Geochemistry*, v. 22, p. 73-83.
- Löhr, S.C., E.T. Baruch, P.A. Hall, and M.J. Kennedy, 2015, Is organic pore development in gas shales influenced by the primary porosity and structure of thermally immature organic matter?: *Organic Geochemistry*, v. 87, p. 119-132.
- Lowe, D.R., 1976, Nonglacial varves in lower member of Arkansas novaculite (Devonian), Arkansas and Oklahoma: AAPG Bulletin, v. 60, p. 2103-2116.
- Lowe, D.R., 1977, The Arkansas novaculite: some aspects of its physical sedimentation, *in* C.G. Stone, and others, eds., Symposium on the geology of the Ouachita Mountains, vol. 1: Arkansas Geological Commission MP-13, p. 132-138.
- Lowe, D.R., 1989, Stratigraphy, sedimentology, and depositional setting of pre-orogenic rocks of the Ouachita Mountains, Arkansas and Oklahoma, *in* R.D. Hatcher, Jr.,

- W.A. Thomas, and G.W. Viele, eds., The Appalachian-Ouachita orogen in the United States: GSA, The Geology of North America, v. F-2, p. 575-590.
- Lüning, S., and S. Kolonic, 2003, Uranium spectral gamma-ray response as a proxy for organic richness in black shales: applicability and limitations: *Journal of Petroleum Geology*, v. 26, p. 153-174.
- Ma, X., and M.D. Zoback, 2016, Geomechanical study of hydraulic fracturing in Woodford Shale, Oklahoma: AAPG Search and Discovery Article #41909, 21 p. http://www.searchanddiscovery.com/pdfz/documents/2016/41909ma/ndx_ma.pdf.html
- Ma, X., and M.D. Zoback, 2017, Lithology-controlled stress variations: A case study of the Woodford Shale, Oklahoma: Unconventional Resources Technology Conference, URTeC 2689088, 5 p. <http://archives.datapages.com/data/urtec/2017/2689088.html>
- Manger, W.L., P.R. Shelby, and S.G. Farris, 1988, Devonian-Lower Mississippian lithostratigraphy, northwestern Arkansas: *The Compass of Sigma Gamma Epsilon*, v. 65, p. 223-231.
- Mann, E., 2014, Stratigraphic study of organic-rich microfacies of the Woodford Shale, Anadarko Basin, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 122 p.
- Maples, C.G., 1994, Revision of Mississippian stratigraphic nomenclature in Kansas, *in* D.L. Baars, compiler, *Revision of stratigraphic nomenclature in Kansas*: Kansas Geological Survey Bulletin 230, p. 67-74.
- Marshall, A.O., V. Nowaczewski, and C.P. Marshall, 2013, Microchemical differentiation of conodont and scolecodont microfossils: *Palaios*, v. 28, p. 433-437.
- Martin, D.P., 2017, Geologic characterization of enigmatic carbonate masses in the Woodford Shale, Criner Hills area, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 92 p. (McAlister cemetery quarry)
- Maxwell, R.W., 1959, Post-Hunton pre-Woodford unconformity in southern Oklahoma, *in* *Petroleum geology of southern Oklahoma—a symposium*: AAPG, v. 2, p. 101-126.
- Maynard, S., 2016, Correlation of bioturbated facies, chemostratigraphy, total organic carbon, and sequence stratigraphy in the Woodford Shale of south central Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 119 p.
- McCreight, K., 2014, Geochemical analysis of the Woodford Shale, Anadarko Basin, Oklahoma: University of Texas at Arlington, unpublished M.S. thesis, 55 p.
- McColloch, A., 2016, Mapping and geochemical analysis of the Chattanooga Shale as a potential source rock for Kansas oil: Kansas State University, unpublished M.S. thesis, 47 p.
- McCullough, B.J., 2014, Sequence stratigraphic framework and characterization of the Woodford Shale on the southern Cherokee Platform of central Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 211 p.
- McCullough, B.J., and R.M. Slatt, 2014, Stratigraphic variability of the Woodford Shale across Oklahoma: AAPG Search and Discovery Article #80417, 24 p. http://www.searchanddiscovery.com/pdfz/documents/2014/80417mccullough/ndx_mccullough.pdf.html

- McCullough, B.J., and R.M. Slatt, 2015, Paleotopographic control on the variability of Woodford Shale strata across the southern Cherokee Platform area of central Oklahoma: A mechanism for increased preservation-potential of organic content: AAPG Search and Discovery Article #51125, 31 p.
http://www.searchanddiscovery.com/pdfz/documents/2015/51125mccullough/ndx_mccullough.pdf.html
- McCullough, B.J., 2017, Sequence-stratigraphic framework of the Woodford Shale on the southern Cherokee Platform of central Oklahoma: Oklahoma City Geological Society, Shale Shaker, v. 68, p. 112-138.
- McKerrow, W.S., and C.R. Scotese, eds., 1990, Paleozoic palaeogeography and biogeography: Geological Society of London Memoir 12, 435 p.
- Mescher, P.K., D.J. Schultz, S.J. Hendrick, M.A. Ward, and J.A. Schwarz, 1993, Lithology and reservoir development of the Arbuckle dolomite, Wilburton field, Latimer County, Oklahoma, *in* K.S. Johnson and J.A. Campbell, eds., Petroleum-reservoir geology in the southern Midcontinent, 1991 symposium: OGS Circular 95, p. 240-245. (Woodford source of Arbuckle gas)
- Metcalf, W.J., III, 1985, Investigation of paleotemperatures in the vicinity of the Washita Valley fault, southern Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 94 p.
- Miceli Romero, A.A., 2010, Geochemical characterization of the Woodford Shale, central and southeastern Oklahoma: Norman, Oklahoma, University of Oklahoma, unpublished M.S. thesis, 133 p.
- Miceli Romero, A., and R.P. Philp, 2012, Organic geochemistry of the Woodford Shale, southeastern Oklahoma: How variable can shales be?: AAPG Bulletin, v. 96, p. 493-517.
- Michael, G.E., 1987, Effect of biodegradation upon porphyrin biomarkers in Upper Mississippian tar sands and related oils, southern Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 118 p.
- Michael, G.E., L.H. Lin, R.P. Philp, C.A. Lewis, and P.J. Jones, 1989, Biodegradation of tar-sand bitumens from the Ardmore/Anadarko basins, Oklahoma. II.— Correlation oil oils, tar sand and source rocks: Organic Geochemistry, v. 14, p. 619-633.
- Michels, R., P. Landais, R.P. Philp, and B.E. Torkelson, 1994, Effects of pressure on organic matter maturation during confined pyrolysis of Woodford kerogen: Energy Fuels, v. 8, p. 741-754.
- Michels, R., P. Landais, B.E. Torkelson, and R.P. Philp, 1995, Effects of effluents and water pressure on oil generation during confined pyrolysis and high-pressure hydrous pyrolysis: Geochimica et Cosmochimica Acta, v. 59, p. 1589-1604.
- Michels, R., P. Landais, R.P. Philp, and B.E. Torkelson, 1995, Influence of pressure and the presence of water on the evolution of the residual kerogen during confined, hydrous, and high-pressure Hydrous Pyrolysis of Woodford Shale: Energy Fuels, v. 9, p. 204-
- Milad, B., 2017, The effect of karsting on natural fracture, hardness, and brittleness of the Hunton Limestone and paleo-deposition of the Woodford Shale: A study using 3-D seismic, outcrop, well log, and core data: AAPG Search and Discovery Article #51417, 26 p.

- http://www.searchanddiscovery.com/pdfz/documents/2017/51417milad/ndx_milad.pdf.html
- Milad, B., and R. Slatt, 2017, Integrated 3D seismic and core data for characterization of natural fractures of the Hunton Limestone and the Woodford Shale in central Oklahoma: AAPG Search and Discovery Article #51382, 3 p.
http://www.searchanddiscovery.com/pdfz/documents/2017/51382milad/ndx_milad.pdf.html
- Miller, R.C., 2006, Characterization of the Woodford Shale in outcrop and subsurface in Pontotoc and Coal Counties, Oklahoma: Norman, OK, University of Oklahoma, unpublished M.S. thesis, 110 p.
- Miser, H.D., 1944, The Devonian System in Arkansas and Oklahoma: Illinois State Geological Survey Bulletin 68, p. 132-138.
- Molinares, C.E., R.M. Slatt, and R. Sierra, 2016, Effect of anisotropy (lamination) on rock fracability for Vertical Transverse Isotropic (VTI) unconventional reservoirs, a comparison between upper (Highstand System Tract – HST) and middle (Transgressive System Tract – TST) Woodford Shale: SEG International Exposition and 86th Annual Meeting, p. 485-489.
- Molinares Blanco, C.E., 2013, Stratigraphy and palynomorphs composition of the Woodford Shale in the Wyche Farm Shale Pit, Pontotoc County, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 90 p.
- Molinares Blanco, C.E., and R.M. Slatt, 2014, Thomas Amsden's pre-Woodford sub-crop maps and the Late Devonian-Early Mississippian unconventional plays in the Arkoma Basin: Shale Shaker, v. 65, p. 212-219.
- Molinares Blanco, C.E., M. Matemilola, J. Zhang, H. Galvis, D. Becerra, L. Infante, and R. Slatt, 2017, Reservoir optimization, mechanical stratigraphy, and stress field orientation in the Woodford Shale SCOOP (South Central Oklahoma Oil Province) play: A case study from Grady County, Oklahoma: AAPG Search and Discovery Article #10984, 26 p.
- Molinares Blanco, C.E., R.M. Slatt, and R. Sierra, 2017, The effects of lamination/bedding on the brittleness for the Woodford Shale silica-rich intervals, from the Wyche-1 core-well analysis, Pontotoc County, Oklahoma: AAPG Search and Discovery Article #51394, 4 p.
- Molinares Blanco, C.E., 2019, Paleoenvironments and sediments around the Frasnian/Famennian (F/F) transition in the Woodford Shale, south central Oklahoma—A multiproxy approach: Norman, University of Oklahoma, unpublished PhD dissertation, 88 p.
- Moran, J.E., 1996, Origin of Iodine in the Anadarko basin, Oklahoma: an ¹²⁹I study: AAPG Bulletin, v. 80, p. 685-694.
- Morgan, G.D., 1924, Geology of the Stonewall Quadrangle, Oklahoma: Oklahoma Bureau of Geology Bulletin 2, 248 p.
- Morrison, L.S., 1980a, Oil in the fascinating Ouachitas: Shale Shaker, v. 31, p. 20-30. (Arkansas Novaculite)
- Morrison, L.S., 1980b, Oil production from fractured cherts of Woodford and Arkansas novaculite formations, Oklahoma [abstract]: AAPG Bulletin, v. 64, p. 754.

- Murgatroyd, C., 1980, Significance of silicified carbonate rocks near the Devonian-Mississippian boundary, Ouachita Mountains, Oklahoma: *Shale Shaker*, v. 31, p. 1-12.
- Musa, M.O., 2013, Factors controlling organic matter preservation and selected metals concentration in the Upper Devonian shales in southern North America (Chattanooga Shale, Tennessee and Woodford Shale, Oklahoma): Stillwater, OK, Oklahoma State University, unpublished PhD dissertation.
- Newell, K.D., J.H. Doveton, and M.W. Lambert, 2001, Facies and petrophysical characteristics of the Chattanooga shale and Misener Sandstone in central Kansas, *in* K.S. Johnson, ed., *Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent*, 1999 symposium: OGS Circular 105, p. 57-70.
- Noble, P.J., 1993, Paleooceanographic and tectonic implications of a regionally extensive Early Mississippian hiatus in the Ouachita system, southern mid-continental United States: *Geology*, v. 21, p. 315-318.
- Noble, P.J., 1995, Regional sedimentation patterns associated with the passive- to active-margin transition, Ouachita Orogeny, southern Midcontinent, U.S.A., *in* K.S. Johnson, ed., *Structural styles in the southern Midcontinent*, 1992 symposium: OGS Circular 97, p. 99-112.
- Northcutt, R.A., K.S. Johnson, and G.C. Hinshaw, 2001, Geology and petroleum reservoirs in Silurian, Devonian, and Mississippian rocks in Oklahoma, *in* K.S. Johnson, ed., *Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent*, 1999 symposium: OGS Circular 105, p. 1-15.
- Nowaczewski, V., 2011, Biomarker and paleontological investigations of the Late Devonian extinctions, Woodford Shale, southern Oklahoma: Lawrence, University of Kansas, unpublished M.S. thesis.
- Nowaczewski, V., M. Lewan, J. Barton, C. Palmer, A. Tang, and S. Chipera, 2016, Evaluating petroleum character and charge from different source-rock lithologies in the Woodford Shale and Caney Shale with hydrous pyrolysis: *AAPG Search and Discovery Article #51251*, 24 p.
http://www.searchanddiscovery.com/pdfz/documents/2016/51251nowaczewski/n dx_nowaczewski.pdf.html
- Oakes, M.C., 1977, Geology and mineral resources (exclusive of petroleum) of Muskogee County, Oklahoma: OGS Bulletin 122, 78 p.
- O'Brien, N.R., and R.M. Slatt, 1990, Woodford Formation, *in* *Argillaceous rock atlas*: New York, Springer-Verlag, p. 104-105.
- O'Brien, N.R., R.M. Slatt, and J. Senftle, 1994, The significance of oil shale fabric in primary hydrocarbon migration: *Fuel*, v. 73, p. 1518-1522.
- O'Brien, N.R., 1995, Origin of shale fabric — clues from framboids: *Northeastern Geology and Environmental Sciences*, v. 17, p. 146-150.
- O'Brien, N.R., M.D. Cremer, and D.G. Canales, 2002, The role of argillaceous rock fabric in primary migration of oil, *in* E.D. Scott, A.H. Bouma, and W.R. Bryant, eds., *Depositional processes and characteristics of siltstones, mudstones, and shales: Gulf Coast Association of Geological Societies Transactions*, v. 52, Siltstone Symposium, p. 1103-1112.

- Olson, R.K., 1982a, Factors controlling uranium distribution in Upper Devonian-Lower Mississippian black shales in Oklahoma [abstract]: GSA Abstracts with Programs, v. 14, no. 7, p. 580.
- Olson, R.K., 1982b, Factors controlling uranium distribution in Upper Devonian-Lower Mississippian black shales of Oklahoma and Arkansas: University of Tulsa unpublished Ph.D. dissertation, 209 p.
- Orth, C.J., L.R. Quintana, J.S. Gilmore, J.E. Barrick, J.N. Haywa, and S.A. Spesshardt, 1988, Pt-group metal anomalies in the Lower Mississippian of southern Oklahoma: *Geology*, v. 16, p. 627-630.
- Over, D.J., 1990, Conodont biostratigraphy of the Woodford Shale (Late Devonian-early Carboniferous) in the Arbuckle Mountains, south-central Oklahoma: Texas Tech University, unpublished Ph.D. dissertation, 174 p.
- Over, D.J., and J.E. Barrick, 1990, The Devonian/Carboniferous boundary in the Woodford Shale, Lawrence uplift, south-central Oklahoma, *in* S.M. Ritter, ed., Early to middle Paleozoic conodont biostratigraphy of the Arbuckle Mountains, southern Oklahoma: OGS Guidebook 27, p. 63-73.
- Over, D.J., 1992, Conodonts and the Devonian-Carboniferous boundary in the upper Woodford Shale, Arbuckle Mountains, south-central Oklahoma: *Journal of Paleontology*, v. 66, p. 293-311.
- Over, D.J., 2002, The Frasnian/Famennian boundary in central and eastern United States: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 181, p. 153-169.
- Owens, B., and M. Streel, 1970, Palynology of the Devonian-Carboniferous boundary, *in* *Colloque sur la Stratigraphie du Carbonifère: Congrès et Colloques*, Univ. Liège, v. 55, p. 113-120.
- Park, D.E., Jr., and C. Croneis, 1969, Origin of Caballos and Arkansas novaculite formations: *AAPG Bulletin*, v. 53, p. 94-111.
- Party, J.M., R.A. Wipf, J.M. Byl, J. Lawton, and J.M. Hill, 2008, Woodford Shale, Ardmore Basin, Oklahoma: A developing shale play: Oklahoma Geological Survey, Gas Shale Workshop presentation, 51 slides.
<http://www.ogs.ou.edu/pdf/GSPartyS.pdf>
- Pawlewicz, M.J., 1989, Thermal maturation of the eastern Anadarko basin, Oklahoma: *U.S. Geological Survey Bulletin* 1866-C, p. C1-C12.
- Pawlewicz, M.J., 1992, Thermal maturation of the eastern Anadarko basin, Oklahoma: *in* K.S. Johnson and B.J. Cardott, eds., *Source rocks in the southern Midcontinent*, 1990 symposium: OGS Circular 93, p.327-329.
- Paxton, S.T., A.M. Cruse, and A.M. Krystyniak, 2006, Detailed fingerprints of global sea-level change revealed in Upper Devonian/Mississippian Woodford Shale of south-central Oklahoma: *AAPG Search and Discovery Article #40211*, 47 p.
<http://www.searchanddiscovery.com/documents/2006/06095paxton/index.htm>
- Paxton, S.T., and B.J. Cardott, 2008, Oklahoma gas shales field trip, October 21 & 23, 2008: Oklahoma Geological Survey Open File Report 2-2008, 110 p.
<http://ogs.ou.edu/docs/openfile/OF2-2008.pdf>
- Paxton, S.T., T. Olsen, C. Price, E. Gross, and M.D. Allison, 2014, Stop 1. A new spectral gamma-ray profile of Upper Devonian/Lower Mississippian Woodford Shale (OHMEGCO exposure) on the south limb of the Arbuckle Anticline,

- Arbuckle Mountains, Oklahoma: Second Biennial Field Conference of the AAPG Mid-Continent Section, Field Guidebook & General Information, p. 1-22.
- Peace, H.W., 1994, Mississippian facies relationships, eastern Anadarko basin, Oklahoma: OCGS Shale Shaker, v. 45, no. 2, p. 26-35. (structure map, top of Woodford, SE Anadarko basin)
- Perez, R.S., 2011, Integrated geomechanics and geological characterization of the Devonian-Mississippian Woodford Shale: Norman, University of Oklahoma, unpublished M.S. thesis, 110 p.
- Peryam, T., M.W. Rahman, J. Anderson, S. Parks, and D. Veach, 2017, Woodford-sourced oil in the Mississippian STACK play: A two-phase migration model (abstract): AAPG Mid-Continent Section Meeting, Search and Discovery Article #90309.
- Petsch, S.T., R.A. Berner, and T.I. Eglinton, 2000, A field study of the chemical weathering of ancient sedimentary organic matter: Organic Geochemistry, v. 31, p. 475-487. (weathering of Woodford Shale from Arbuckle Mountains)
- Petsch, S.T., R.J. Smernik, T.I. Eglinton, and J.M. Oades, 2001, A solid state ¹³C-NMR study of kerogen degradation during black shale weathering: Geochimica et Cosmochimica Acta, v. 65, p. 1867-1882.
- Peza, E., E. Kvale, R. Hand, W. Harper, R. Jayakumar, D. Wood, E. Wigger, B. Dean, Z. Al-Jalal, and S. Ganpule, 2014, 3-D integrated workflow for understanding the fracture interference and its impact into the gas production of the Woodford Shale: Unconventional Resources Technology Conference, URTeC 1923397, 26 p. <http://archives.datapages.com/data/urtec/2014/1923397.pdf>
- Philp, R.P., P.J. Jones, L.H. Lin, G.E. Michael, and C.A. Lewis, 1989, An organic geochemical study of oils, source rocks, and tar sands in the Ardmore and Anadarko basins, in K.S. Johnson, ed., Anadarko basin symposium, 1988: OGS Circular 90, p. 65-76.
- Philp, R.P., J. Chen, A. Galvez-Sinibaldi, H. Wang, and J.D. Allen, 1992, Effects of weathering and maturity on the geochemical characteristics of the Woodford Shale, in K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 106-121.
- Philp, R.P., and C.D. DeGarmo, 2020, Geochemical characterization of the Devonian-Mississippian Woodford Shale from the McAlister Cemetery Quarry, Criner Hills Uplift, Ardmore Basin, Oklahoma: Marine and Petroleum Geology, v. 112, 104078.
- Philp, R.P., and C. Symcox, 2021, A preliminary geochemical investigation into shales and oil-stained sands from the Simpson Group in the Anadarko Basin: Oklahoma City Geological Society, Shale Shaker, v. 72, p. 14-23.
- Philp, R.P., C. Symcox, M. Wood, T. Nguyen, H. Wang, and D. Kim, 2021, Possible explanations for the predominance of tricyclic terpanes over pentacyclic terpanes in oils and rock extracts: Organic Geochemistry, v. 155, 104220.
- Philp, R.P., M. Wood, Y.S. Gorenekli, T. Nguyen, G.T. Connock, C. Pezzaro, C. Symcox, and D. Villalba, 2022, Re-arranged hopanes and novel re-arranged tricyclic terpanes in Paleozoic rock extracts and oils in the Anadarko Basin, Oklahoma: Organic Geochemistry, v. 173, 104493.
- Pittenger, A., 1988, Provenance and depositional environment of the Sylamore sandstone in northeastern Oklahoma and northern Arkansas: Shale Shaker, v. 38, p. 50-61.

- Portas Arroyal, R.M., 2009, Characterization and origin of fracture patterns in the Woodford Shale in southeastern Oklahoma for application to exploration and development: Norman, University of Oklahoma, unpublished M.S. thesis, 110 p.
- Price, L.C., J.L. Clayton, and L.L. Rumen, 1981, Organic geochemistry of the 9.6 km Bertha Rogers no. 1 well, Oklahoma: Organic Geochemistry, v. 3, p. 59-77.
- Price, L.C., 1997, Minimum thermal stability levels and controlling parameters of methane, as determined by C15+ hydrocarbon thermal stabilities: USGS. Bulletin 2146-K, 176 p. (Bertha Rogers 1 well)
- Price, L.C., 1997, Origins, characteristics, evidence for, and economic variabilities of conventional and unconventional gas resource bases: U.S. Geological Survey, Bulletin 2146-L, 207 p. (Bertha Rogers 1 well)
- Puckette, J., D.R. Boardman, and W.L. Watney, 2013, Woodford Shale: Correlating rock properties in outcrop and core with wireline log characteristics: AAPG Search and Discovery Article #50885, 46 p.
http://www.searchanddiscovery.com/pdf/documents/2013/50885puckette/ndx_puckette.pdf.html
- Qin, C., J.M. Maxwell, and P. Ortleva, 1994, Basin scale overpressured “megacompartments”: three dimensional diagenetic, hydrologic, mechanical predictive modeling [abstract]: AAPG Annual Convention, Official Program, v. 3, p. 239. (Woodford Shale is basal seal)
- Quan, T.M., E.N. Adegwe, N. Riedinger, and J. Puckette, 2013, Evaluating nitrogen isotopes as proxies for depositional environmental conditions in shales: Comparing Caney and Woodford shales in the Arkoma Basin, Oklahoma: Chemical Geology, v. 360-361, p. 231-240.
- Raef, A.E., A. Kamari, M. Totten, D. Harris, K. Janssen, and M. Lambert, 2018, The dynamic elastic and mineralogical brittleness of Woodford Shale of the Anadarko Basin: Ultrasonic P-wave and S-wave velocities, XRD-mineralogy and predictive models: Journal of Petroleum Science and Engineering, v. 169, p. 33-43.
- Rahman, M.W., D. Veach, R. Jayakumar, and S. Esmaili, 2017, Application of organic geochemistry on assessment of fluid behavior and oil migration within the Woodford Shale in the Anadarko Basin: Unconventional Resources Technology Conference, URTeC 2688342, 12 p.
<http://archives.datapages.com/data/urtec/2017/2688342.html>
- Rahman, M.W., T. Peryam, D. Veach, M. Homan, J. Anderson, and B. Price, 2017, Geochemical fingerprinting and fluid phase behavior of produced oils from Meramec and Woodford reservoirs from the STACK play, Anadarko Basin (abstract): AAPG Mid-Continent Section Meeting, Search and Discovery Article #90309.
- Rahman, M.W., 2023, Geochemistry for unconventional petroleum exploration and development: A case study from Anadarko Basin, Oklahoma, USA (abstract): AAPG Midcontinent Section meeting.
- Rahman, M.W., 2024, Geochemistry of unconventional petroleum systems: Anadarko Basin case study, Oklahoma, USA: AAPG Academy Webinar presentation.
<https://www.youtube.com/watch?v=-mwpeParYJg>

- Reber, J.J., 1988, Correlation and biomarker characterization of Woodford-type oil and source rock, Aylesworth field, Marshall County, Oklahoma: University of Tulsa, unpublished M.S. thesis, 96 p.
- Reber, J.J., 1989, Biomarker characterization of Woodford-type oils and correlation to source rock, Aylesworth field, Marshall County, Oklahoma, *in* K.S. Johnson, ed., Anadarko basin symposium, 1988: OGS Circular 90, p. 271.
- Redden, J., 2016, Woodford Shale: SCOOP, Stack sweet spots provide some relief: *World Oil*, v. 237, no. 1, p. 68-74.
- Reeds, C.A., 1910, A report on the geological and mineral resources of the Arbuckle Mountains, Oklahoma: OGS Bulletin 3, 69 p.
- Reeds, C.A., 1927, The Arbuckle Mountains, Oklahoma: OGS Circular 14, 15 p.
- Reese, E.C., 2016, Lithofacies and chemostratigraphic evaluation of the Woodford Shale in the western Arkoma and eastern Anadarko Basins, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 191 p.
- Rice, D.D., C.N. Threlkeld, and A.K. Vuletic, 1989, Characterization and origin of natural gases of the Anadarko basin, *in* K.S. Johnson, ed., Anadarko basin symposium, 1988: OGS Circular 90, p. 47-52.
- Ripley, W.F., 2001, Geologic setting provides keys to locating the elusive Devonian Misener sandstone in central northern Oklahoma, *in* K.S. Johnson, ed., Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent, 1999 symposium: OGS Circular 105, p. 37-46.
- Rivera, K.T., 2013, Geologic controls on nitrogen isotopes in marine black shale: A case study of the Woodford Shale, Anadarko Basin, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis.
- Rivera, K., and T.M. Quan, 2014, Thermal maturation effects on the nitrogen isotopes in marine shales: A case study of the Woodford Shale: AAPG Search and Discovery Article # 50920, 26 p.
- Rivera, K.T., J. Puckette, and T.M. Quan, 2015, Evaluation of redox versus thermal maturity controls on $\delta^{15}\text{N}$ in organic rich shales: A case study of the Woodford Shale, Anadarko Basin, Oklahoma, USA: *Organic Geochemistry*, v. 83-84, p. 127-139.
- Roberts, C., 1988, Laminated black shale-chert cyclicity in the Woodford Formation (Upper Devonian of southern Mid-Continent): University of Texas at Dallas, unpublished M.S. thesis, 85 p.
- Roberts, C.T., and R.M. Mitterer, 1992, Laminated black shale-bedded chert cyclicity in the Woodford Formation, southern Oklahoma, *in* K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 330-336.
- Roberts, J.M., 2017, A diagenetic and paleomagnetic study of the Woodford Shale, Oklahoma, U.S.A.: Norman, University of Oklahoma, unpublished M.S. thesis, 63 p.
- Roberts, J.M., and R.D. Elmore, 2018, A diagenetic study of the Woodford Shale in the southeastern Anadarko Basin, Oklahoma, USA: Evidence for hydrothermal alteration in mineralized fractures: *Interpretation*, v. 6, no. 1, p. SC1 - SC13.

- Rosenberg, Y.O., and I.J. Reznik, 2021, Evaluating transformation of marine kerogens from Rock-Eval measurements: A. Derivation of a scaled thermal maturation path from laboratory maturation data: *Organic Geochemistry*, v. 162, 104305.
- Roth, R., 1929, A comparative faunal chart of the Mississippian and Morrow formations of Oklahoma and Arkansas: OGS Circular 18, 16 p. (fauna in the Woodford)
- Rottmann, K., E.A. Beaumont, R.A. Northcutt, Z. Al-Shaieb, J. Puckette, and P. Blubaugh, 2000, Hunton play in Oklahoma (including northeast Texas panhandle): Oklahoma Geological Survey Special Publication 2000-2, 131 p.
- Rottmann, K., 2000, Isopach map of Woodford Shale, *in* Hunton play in Oklahoma (including northeast Texas panhandle): Oklahoma Geological Survey Special Publication 2000-2, plate 2.
- Rottmann, K., 2000, Defining the role of Woodford–Hunton depositional relationships in Hunton stratigraphic traps of western Oklahoma, *in* K.S. Johnson, ed., Platform carbonates in the southern Midcontinent, 1996 symposium: OGS Circular 101, p. 139-146.
- Rowe, H., N. Hughes and K. Robinson, 2012, The quantification and application of handheld energy-dispersive x-ray fluorescence (ED-XRF) in mudrock chemostratigraphy and geochemistry: *Chemical Geology*, v. 324-325, p. 122-131.
- Russell, P.L., 1990, Oil shales of the world, their origin, occurrence and exploitation: New York, Pergamon Press, 753 p. (Chattanooga in NE Oklahoma as oil shale)
- Ryan, B.E., 2017, Petrophysical properties of the Woodford Formation in the Ardmore Basin in Oklahoma, U.S.A.: Arlington, Texas, University of Texas at Arlington, unpublished M.S. thesis, 90 p.
- Scaggs, T., E. Hutto, B. Grieser, and J. Calvin, 2017, Software guides Woodford completion: *American Oil & Gas Reporter*, v. 60, no. 12, p. 52-61.
- Schmoker, J.W., 1986, Oil generation in the Anadarko basin, Oklahoma and Texas: modeling using Lopatin's method: OGS Special Publication 86-3, 40 p.
- Schmoker, J.W., and T.C. Hester, 1989, Formation resistivity as an indicator of the onset of oil generation in the Woodford Shale, Anadarko basin, Oklahoma, *in* K.S. Johnson, ed., Anadarko basin symposium, 1988: OGS Circular 90, p. 262-266.
- Schmoker, J.W., and T.C. Hester, 1990, Formation resistivity as an indicator of oil generation—Bakken Formation of North Dakota and Woodford Shale of Oklahoma: *The Log Analyst*, v. 31, p. 1-9.
- Schopf, J.M., and J.F. Schwietering, 1970, The *Foerstia* zone of the Ohio and Chattanooga shales: U.S. Geological Survey Bulletin 1294-H, 15 p. (Oklahoma locality at Spavinaw dam, Delaware County)
- Schwartzapfel, J.A., 1990, Biostratigraphic investigations of late Paleozoic (Upper Devonian to Mississippian) Radiolaria within the Arbuckle Mountains and Ardmore basin of south-central Oklahoma: Dallas, University of Texas, unpublished Ph.D. dissertation, 475 p.
- Schwartzapfel, J.A., and B.K. Holdsworth, 1996, Upper Devonian and Mississippian radiolarian zonation and biostratigraphy of the Woodford, Sycamore, Caney, and Goddard Formations, Oklahoma: Cambridge, MA, Cushman Foundation for Foraminiferal Research, Special Publication 33, 275 p.

- Senftle, J.T., 1989, Influence of kerogen isolation methods on petrographic and bulk chemical composition of a Woodford Shale sample: The Society for Organic Petrology, Research Committee Report, 35 p.
- Shannon, J.P., Jr., 1962, Hunton Group (Silurian-Devonian) and related strata in Oklahoma: AAPG Bulletin, v. 46, p. 1-29.
- Shao, D., T. Zhang, L.T. Ko, Y. Li, J. Yan, L. Zhang, H. Luo, and B. Qiao, 2020, Experimental investigation of oil generation, retention, and expulsion within Type II kerogen-dominated marine shales: Insights from gold-tube nonhydrous pyrolysis of Barnett and Woodford Shale using miniature core plugs: International Journal of Coal Geology, v. 217, 103337.
- Sharifi, M., M. Kelkar, and A. Karkevandi-Talkhooncheh, 2021, A workflow for flow simulation in shale oil reservoirs: A case study in Woodford Shale: Advances in Geo-Energy Research, v. 5, p. 365-375.
- Shed, A.C., 1964, Some phosphate nodules and the beds from which they were derived: Oklahoma Academy of Science Proceedings, v. 44, p. 74-76.
- Shed, A.C., 1968, Spherulites in the phosphatic concretions of the Woodford Chert, Arbuckle Mountains, Oklahoma: Oklahoma Academy of Science Proceedings, v. 47, p. 171-172.
- Sheppard, R.E., P.J. Polissar, and H.M. Savage, 2015, Organic thermal maturity as a proxy for frictional fault heating: Experimental constraints on methylphenanthrene kinetics at earthquake timescales: Geochimica et Cosmochimica Acta, v. 151, p. 103-116.
- Sholes, M.A., 1977, Arkansas novaculite stratigraphy, *in* C.G. Stone, and others, eds., Symposium on the geology of the Ouachita Mountains, vol. 1: Arkansas Geological Commission MP-13, p. 139-145.
- Sholes, M.A., 1978, Stratigraphy and petrography of the Arkansas novaculite of Arkansas and Oklahoma: Austin, University of Texas, unpublished Ph.D. dissertation, 312 p.
- Sholes, M.A., and E.F. McBride, 1975, Arkansas novaculite, *in* G. Briggs, E.F. McBride, and R.J. Muiola, eds., A guidebook to the sedimentology of Paleozoic flysch and associated deposits, Ouachita Mountains–Arkoma basin, Oklahoma: Dallas Geological Society, p. 69-87.
- Sierra, R., M.H. Tran, Y.N. Abousleiman, and R.M. Slatt, 2010, Woodford Shale mechanical properties and the impacts of lithofacies: American Rock Mechanics Association, ARMA 10-461, 10 p.
- Sierra, R., 2011, Integrated geomechanics and geological characterization of the Devonian-Mississippian Woodford Shale: Norman, University of Oklahoma, unpublished M.S. thesis, 110 p.
- Siy, S.E., 1988, Geochemical and petrographic study of phosphate nodules of the Woodford Shale (Upper Devonian-Lower Mississippian) of southern Oklahoma: Texas Tech University, unpublished M.S. thesis, 172 p.
- Siy, S.E., 1993, The Woodford Shale (Upper Devonian-Lower Mississippian) and associated phosphate nodules, south-central and southeastern Oklahoma, *in* D.R. Keller and C.L. Reed, eds., Paleokarst, karst-related diagenesis, reservoir development, and exploration concepts: examples from the Paleozoic section of the southern mid-continent: PBS-SEPM Field Trip Guidebook 93-34, p. 85-98.

- Slatt, R.M., and N.R. O'Brien, 2011, Pore types in the Barnett and Woodford gas shales: Contribution to understanding gas storage and migration pathways in fine-grained rocks: AAPG Bulletin, v. 95, p. 2017-2030.
- Slatt, R.M., N. Buckner, Y. Abousleiman, R. Sierra, P. Philp, A. Micelli-Romero, R. Portas, N. O'Brien, M. Tran, R. Davis, and T. Wawrzyniec, 2012, Outcrop-behind outcrop (quarry): multiscale characterization of the Woodford gas shale, Oklahoma, *in* J. Breyer, ed., Shale reservoirs—Giant resources for the 21st century: AAPG Memoir 97, p. 382-402.
- Slatt, R.M., P.R. Philp, Y. Abousleiman, P. Singh, R. Perez, R. Portas, K.J. Marfurt, S. Madrid-Arroyo, N. O'Brien, E.V. Eslinger, and E.T. Baruch, 2012, Pore-to-regional-scale integrated characterization workflow for unconventional gas shales, *in* J. Breyer, ed., Shale reservoirs—Giant resources for the 21st century: AAPG Memoir 97, p. 127-150.
- Slatt, R.M., 2013, Sequence stratigraphy of the Woodford Shale and application to drilling and production: AAPG Search and Discovery Article #50792, 20 p.
http://www.searchanddiscovery.com/documents/2013/50792slatt/ndx_slatt.pdf
- Slatt, R.M., C. Molinares-Blanco, J.D. Amorocho, C.L. Cabarcas, and E. Torres-Parada, 2014, Sequence stratigraphy, geomechanics, microseismicity, and geochemistry relationships in unconventional resource shales: Unconventional Resources Technology Conference, URTEC 1934195, 16 p.
- Slatt, R.M., B. McCullough, C. Molinares, E. Baruch, F. Cardona, and B. Turner, 2015, Paleotopographic and depositional environment control on “sweet spot” locations in unconventional resource shales: Woodford and Barnett shale examples: AAPG Search and Discovery Article #10713, 16 p.
http://www.searchanddiscovery.com/documents/2015/10713slatt/ndx_slatt.pdf
- Slatt, R.M., B. McCullough, C. Molinares, E. Baruch, and B. Turner, 2015, Paleotopographic and depositional environment controls on “sweet spot” locations in unconventional resource shales: Woodford and Barnett shale examples: Part 2: AAPG Search and Discovery Article #80467, 22 p.
http://www.searchanddiscovery.com/pdfz/documents/2015/80467slatt/ndx_slatt.pdf.html
- Slatt, R.M., 2015, Sequence stratigraphy of unconventional resource shales, *in* R. Rezaee, ed., Fundamentals of gas shale reservoirs: John Wiley & Sons, Inc., p. 71-88.
- Slatt, R.M., H. Galvis-Portillo, D. Becerra-Rondon, I.C. Ekwunife, R. Brito, J. Zhang, C. Molinares, E. Torres, D. Duarte, and B. Milad, 2018, Outcrop and subsurface geology applied to drilling, sweet spot and target zone detection of resource shales: the Woodford example: Unconventional Resources Technology Conference, URTEC 2893838, 17 p.
- Slatt, R.M., and students of Stack-Merge-SCOOP industry consortium, 2018, Conventional analysis of unconventional resource shales: Oklahoma City Geological Society, Shale Shaker, v. 69, p. 292-328.
- Slatt, R.M., 2020, Characterization of unconventional resource shales (mudstones): The necessity of multiscale scientific integration, *in* T. Dewers, J. Heath, and M. Sánchez, Shale: Subsurface science and engineering: American Geophysical Union, Geophysical Monograph 245, p. 163-195.

- Smith, C.H., A. Bashkirtseva, M. Robinson, J. Atteberry, and R. Barber, 2016, Geological factors affect horizontal well completions: AAPG Search and Discovery Article #41763, 9 p.
- Smith, P.W., 1992, Factors controlling Simpson Group production in central Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 78 p. (Woodford as source rock of Simpson oil)
- Smith, P.W., 1997, Structural and stratigraphic factors that influence Simpson Group production in central Oklahoma: Oklahoma Geological Survey, Circular 99, p. 111-136. (Woodford Rock-Eval data, p. 128, 131-132)
- Smith, T.N., 1987, Geochemical biomarker study of the Woodford Shale in the Witcher field, Oklahoma County, Oklahoma: University of Tulsa, unpublished M.S. thesis, 122 p.
- Smith, T.N., 1989, Evidence of early oil generation in the Woodford Shale, Witcher field, central Oklahoma, *in* K.S. Johnson, ed., Anadarko basin symposium, 1988: OGS Circular 90, p. 267.
- Snider, A., 2014, Characterization of the Woodford Shale in southern Noble and northern Payne Counties, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis.
- Snider, L.C., 1915, Geology of a portion of northeastern Oklahoma: OGS Bulletin 24, pt. 1, 65 p.
- Sorenson, R.P., 2005, Dynamic model for the Permian Panhandle and Hugoton fields, western Anadarko Basin: AAPG Bulletin, v. 89, p. 921-938.
- Spesshardt, S.A., 1985, Late Devonian-Early Mississippian phosphorite-bearing shales, Arbuckle Mountain region, south-central Oklahoma: Texas Tech University, unpublished M.S. thesis, 109 p.
- Spötl, C., D.W. Houseknecht, and R.C. Jaques, 1998, Kerogen maturation and incipient graphitization of hydrocarbon source rocks in the Arkoma basin, Oklahoma and Arkansas: a combined petrographic and Raman spectrometric study: Organic Geochemistry, v. 28, p. 535-542.
- Stanley, T.M., 2001, Stratigraphy and facies relationships of the Hunton Group, northern Arbuckle Mountains and Lawrence uplift, Oklahoma: OGS Guidebook 33, 73 p.
- Stanley, T.M., 2013, The Hunton Anticline Quarry: Oklahoma City Geological Society, Shale Shaker, v. 64, p. 228-237.
- Stark, P., and L.K. Smith, 2017, Giant oil and gas fields of the 2000s: A new century ushers in deeper water, unconventional, and more gas, *in* R.K. Merrill and C.A. Sternbach, eds., Giant fields of the decade 2000–2010: AAPG Memoir 113, p. 15-28.
- Starke, J.M., Jr., 1961, Geology of northeastern Cherokee County, Oklahoma: OGS Circular 57, 62 p.
- Stueck, H., D. Houseknecht, D. Franke, D. Gautier, A. Bahr, and S. Ladage, 2016, Shale-gas assessment: Comparison of gas-in-place versus performance-based approaches: Natural Resources Research, v. 25, p. 315-329. (Woodford, p. 319-320)
- Suhm, R.W., 2016, The Simpson play (including parts of the Arbuckle and Viola): OGS Open File Report 3-2016, 115 p. (source beds p. 80-81)
- Sullivan, K.L., 1983, Organic facies variation of the Woodford Shale, in western Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 101 p.

- Sullivan, K.L., 1985, Organic facies variation of the Woodford Shale in western Oklahoma: *Shale Shaker*, v. 35, p. 76-89.
- Suneson, N.H., and J.A. Campbell, 1990, Pinetop section, *in* N.H. Suneson, J.A. Campbell, and M.J. Tilford, eds., *Geology and resources of the frontal belt of the western Ouachita Mountains, Oklahoma*: OGS Special Publication 90-1, p. 50-53. (Woodford Shale at Pinetop Chert locality)
- Surdam, R.C., L.J. Crossey, E.S. Hagen, and H.P. Heasler, 1989, Organic-inorganic interactions and sandstone diagenesis: *AAPG Bulletin*, v. 73, p. 1-23.
- Swanson, V.E., 1960, Oil yield and uranium content of black shales: U.S.G.S. Professional Paper 356-A, 44 p.
- Swanson, V.E., 1961, Geology and geochemistry of uranium in marine black shales, a review: U.S.G.S. Professional Paper 356-C, p. 67-112.
- Swanson, V.E., and E.R. Landis, 1962, Geology of a uranium-bearing black shale of Late Devonian age in north-central Arkansas: *Arkansas Geological Commission Information Circular 22*, 16 p.
- Symcox, C., and R.P. Philp, 2019, Some observations on the geochemical character of STACK and SCOOP oils: *Oklahoma City Geological Society, Shale Shaker*, v. 70, p. 248-260.
- Symcox, C., 2021, *Geochemistry of the STACK and SCOOP oil plays, Anadarko Basin, Oklahoma*: Norman, Oklahoma, University of Oklahoma, unpublished Ph.D. dissertation, 261 p.
- Symcox, C., and R.P. Philp, 2023, Geochemical characteristics of oils from the Sooner Trend Anadarko Basin, Canadian, and Kingfisher Counties and South-Central Oklahoma Oil Province plays, Anadarko Basin, Oklahoma: *AAPG Bulletin*, v. 107, p. 593-627.
- Taff, J.A., 1902, Description of the Atoka quadrangle [Indian Territory]: U.S. Geological Survey Geologic Atlas Folio 79, scale 1:125,000, 8 p. (named Woodford Chert)
- Taff, J.A., 1903, Description of the Tishomingo quadrangle [Indian Territory]: U.S. Geological Survey Geologic Atlas Folio 98, scale 1:125,000, 8 p.
- Taff, J.A., 1904, Preliminary report on the geology of the Arbuckle and Wichita Mountains in Indian Territory and Oklahoma: U.S. Geological Survey Professional Paper 31, 111 p.
- Taff, J.A., 1905, Description of the Tahlequah quadrangle [Indian Territory]: U.S. Geological Survey Geologic Atlas Folio 122, scale 1:125,000, 7 p.
- Taff, J.A., 1928, Preliminary report on the geology of the Arbuckle and Wichita Mountains: *OGS Bulletin 12*, 95 p.
- Tarafa, M.E., J.K. Whelan, and J.W. Farrington, 1988, Investigation on the effects of organic solvent extraction on whole-rock pyrolysis: multiple-lobed and symmetrical P2 peaks: *Organic Geochemistry*, v. 12, p. 137-149.
- Tarr, R.S., 1955, Paleogeologic map at base of Woodford, and Hunton isopachous map of Oklahoma: *AAPG Bulletin*, v. 39, p. 1851-1858.
- Tarr, R.S., L. Jordan, and T.L. Rowland, 1965, Geologic map and section of pre-Woodford rocks in Oklahoma showing surface and subsurface distribution: *OGS Map GM-9*, scale 1:750,000.

- Tegelaar, E.W., and R.A. Noble, 1994, Kinetics of hydrocarbon generation as a function of the molecular structure of kerogen as revealed by pyrolysis-gas chromatography: *Organic Geochemistry*, v. 22, p. 543-574.
- Testa, S.M., C.F. Hoffman, and M.J. Mavor, 2003, Reservoir property analysis Mangles 24-2SD Woodford Shale Cherokee Basin: Gas Research Institute, GRI-04-0060, 46 p.
- Thomas, D., 2018, Discoveries from the updip expansion of the SCOOP play: AAPG Search and Discovery Article #11041, 19 p.
http://www.searchanddiscovery.com/pdfz/documents/2018/11041thomas/ndx_thomas.pdf.html
- Thompson, C.L., and H. Dembicki, Jr., 1986, Optical characteristics of amorphous kerogens and the hydrocarbon-generating potential of source rocks: *International Journal of Coal Geology*, v. 6, p. 229-249.
- Thompson-Rizer, C.L., R.A. Woods, and K. Ottenjann, 1988, Quantitative fluorescence results from sample exchange studies: *Organic Geochemistry*, v. 12, p. 323-332. (Woodford Shale from Arbuckle Mountains)
- Tinni, A., E. Odusina, I. Sulucarnain, C. Sondergeld, and C.S. Rai, 2015, Nuclear-Magnetic-Resonance response of brine, oil, and methane in organic-rich shales: *SPE Reservoir Evaluation & Engineering*, v. 18, p. 400-406.
- Todd, H.W., 2001, Mississippian Springer sands as conduits for emplacement of hydrocarbons in prolific Ordovician reservoirs in southern Oklahoma, *in* K.S. Johnson, ed., *Silurian, Devonian, and Mississippian geology and petroleum in the southern Midcontinent*, 1999 symposium: OGS Circular 105, p. 83-88. (Woodford as source rock)
- Tokunaga, T.K., W. Shen, J. Wan, Y. Kim, A. Cihan, Y. Zhang, and S. Finsterle, 2017, Water saturation relations and their diffusion-limited equilibration in gas shale: Implications for gas flow in unconventional reservoirs: *American Geophysical Union, Water Resources Research*, p. 9757-9770.
- Tomlinson, C.W., 1959, Best exposures of various strata in Ardmore basin, 1957, *in* J.W. Mayes, and others, eds., *Petroleum geology of southern Oklahoma*, v. 2: AAPG, p. 302-334. (Woodford Shale, p. 325)
- Torres, E.J., R.M. Slatt, K.J. Marfurt, L.E. Infante, and L.A. Castillo, 2017, Identification of potential lacustrine stratigraphic intervals in the Woodford Shale, Oklahoma, using multi-attribute 3-D seismic displays and a supervised neural network: *Unconventional Resources Technology Conference, URTeC 2692737*, 13 p.
<http://archives.datapages.com/data/urtec/2017/2692737.html>
- Torres-Parada, E.J., S. Sinha, L.E. Infante-Paez, R.M. Slatt, and K.J. Marfurt, 2018, Seismic to simulation: Woodford Shale case study in Oklahoma, USA: *URTeC 2886614*, 17 p.
- Torres-Parada, E.J., 2020, Woodford Shale enclosed mini-basin fill on the Hunton paleo shelf. A depositional model for unconventional resource shales: Norman, University of Oklahoma, unpublished Ph.D. dissertation, 326 p.
- Totten, M.W., and R.O. Fay, 1982, Map of Oklahoma showing localities of reported uranium and radioactivity values: OGS Map GM-25. (Woodford Shale, p. 9)

- Totten, M.W., Jr., 2011, Electron probe micro-analysis of the Woodford Shale, south-central Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 125 p.
- Trabelsi, A.S., 1990, Depositional environment of the Woodford Shale in the Midland basin [abstract]: GSA Abstracts with Programs, v. 22, no. 1, p. 34.
- Tran, M.H., Y.N. Abousleiman, S.K. Hoang, A.J. Ortega, C. Bobko, and F. Ulm, 2007, The acoustic signature of Woodford Shale and upscale relationship from nano-scale mechanical properties and mineralogy: Eos, Transactions, American Geophysical Union, 88 (52 Supplement), Dec. 10-14, 2007.
- Tran, M.H., S. Chen, S.P. Rafael, Y.N. Abousleiman, and R.M. Slatt, 2014, A geomechanics approach to evaluate gas shale frackability: A case study with the Woodford Shale: AAPG Search and Discovery Article #50913, 25 p.
- Traverse, A., and H.T. Ames, compilers, 1970, Catalog of fossil spores and pollen, v. 32, Devonian spores: University Park, Pennsylvania State University, Palynology Labs, 345 p. (Woodford, p. 298-300)
- Tréanton, J., 2014, Outcrop-derived chemostratigraphy of the Woodford Shale, Murray County, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis 83 p.
- Trivett, M.L., 1993, An architectural analysis of Archaeopteris, a fossil tree with pseudomonopodial and opportunistic adventitious growth: Botanical Journal of the Linnean Society, v. 111, p. 301-329. (silicified Callixylon log from Woodford Shale was examined)
- Turner, B.W., and R.M. Slatt, 2013, Chemostratigraphy and its application to the Woodford Shale, Oklahoma: Oklahoma Geological Survey, Oklahoma Shale Gas & Oil Workshop presentation, 29 p. http://ogs.ou.edu/docs/meetings/OGS-Workshop-Shale_Gas_7_March_2013-Turner.pdf (cores: Hall 2B, Anthis 2, Ray 1-13)
- Turner, B.W., J.A. Tréanton, and R.M. Slatt, 2015, The use of chemostratigraphy to refine ambiguous sequence stratigraphic correlations in marine shales: An example from the Woodford Shale, Oklahoma: Unconventional Resources Technology Conference, URTEC 2154166, 10 p.; AAPG Search and Discovery Article #51181, 17 p.
- Turner, B.W., C.E. Molinares-Blanco, and R.M. Slatt, 2015, Chemostratigraphic, palynostratigraphic, and sequence stratigraphic analysis of the Woodford Shale, Wyche farm quarry, Pontotoc County, Oklahoma: Interpretation, v. 3, no. 1, p. SH1-SH9.
- Turner, B.W., J.A. Tréanton, and R.M. Slatt, 2016, The use of chemostratigraphy to refine ambiguous sequence stratigraphic correlations in marine mudrocks. An example from the Woodford Shale, Oklahoma, USA: London, Journal of the Geological Society, v. 173, p. 854-868. (Hunton anticline quarry)
- Turner, B.W., and R.M. Slatt, 2016, Assessing bottom water anoxia within the Late Devonian Woodford Shale in the Arkoma Basin, southern Oklahoma: Marine and Petroleum Geology, v. 78, p. 536-546.
- Turner, B.W., 2016, Utilization of chemostratigraphic proxies for generating and refining sequence stratigraphic frameworks in mudrocks and shales: Norman, University of Oklahoma, unpublished Ph.D. dissertation, 135 p.

- Urban, J.B., 1960, Microfossils of the Woodford Shale (Devonian) of Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 77 p.
- Van Berkel, G.J., 1987, The role of kerogen in the origin and evolution of nickel and vanadyl geoporphyryns: Washington State University, unpublished Ph.D. dissertation, 246 p.
- Verma, S., and K. Marfurt, 2014, A way of TOC characterization on Barnett and Woodford Shale: AAPG Search and Discovery Article #80429, 12 p.
- Vernik, L., and C. Landis, 1996, Elastic anisotropy of source rocks: implications for hydrocarbon generation and primary migration: AAPG Bulletin, v. 80, p. 531-544. (Woodford, p. 534)
- Villalba, D.M., 2016, Organic geochemistry of the Woodford Shale, Cherokee Platform, OK and its role in a complex petroleum system: Norman, University of Oklahoma, unpublished M.S. thesis, 126 p.
- Villalba, D., and R.P. Philp, 2023, Characteristics of oils and their potential source rocks from the Cherokee Platform, Oklahoma: Marine and Petroleum Geology, v. 157, 106457.
- Von Almen, W.F., 1970a, Palynomorphs of the Woodford Shale of south-central Oklahoma with observations on their significance in zonation and paleoecology: Michigan State University, unpublished Ph.D. dissertation, 179 p.
- Von Almen, W.F., 1970b, Miospores from Devonian-Mississippian boundary, Carter County, Oklahoma, U.S.A., *in* Colloques sur la Stratigraphie du Carbonifère: Contrés et Colloques, Univ. Liège, v. 55, p. 423-427.
- Walker, D., R.D. Elmore, and K. Bloomfield, 2005, Remagnetization and the timing of organic-matter-maturation in the Woodford Shale, Oklahoma (abstract), *in* B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 131.
- Walters, D.L., 1958, The pre-Woodford subcrop and its relationship to an overlying detrital lithofacies in northeast Marshall and southwest Johnston counties, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 37 p.
- Wang, H.D., 1993, A geochemical study of potential source rocks and crude oils in the Anadarko basin, Oklahoma: Norman, University of Oklahoma, unpublished Ph.D. dissertation, 296 p.
- Wang, H.D., and R.P. Philp, 1997, Geochemical study of potential source rocks and crude oils in the Anadarko basin, Oklahoma: AAPG Bulletin, v. 81, p. 249-275.
- Wang, H.D., and R.P. Philp, 2001, Geochemical characterization of selected oils and source rocks from the Chester Formation, Springer Formation, and Morrow Group of the Anadarko basin, *in* K.S. Johnson, ed., Pennsylvanian and Permian geology and petroleum in the southern Midcontinent, 1998 symposium: OGS Circular 104, p. 41-57.
- Wang, L., 1989, Modeling of hydrocarbon generation and migration for the Woodford Shale in the Anadarko basin, *in* K.S. Johnson, ed., Anadarko basin symposium, 1988: OGS Circular 90, p. 268-270.
- Wang, L., and C. Barker, 1992, Investigation of the pyrolysis process from pyrolyzing the Woodford Shale and the Excello Shale, *in* K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 346.

- Wang, T., 2016, An organic geochemical study of Woodford Shale and Woodford-Mississippian tight oil from central Oklahoma: Norman, Oklahoma, University of Oklahoma, unpublished Ph.D. dissertation, 297 p.
- Wang, T., L. Liu, M. Liu, and R.P. Philp, 2018, Source rock of Woodford/Mississippian tight oil play on the Cherokee Platform (Oklahoma): AAPG Search and Discovery Article #51485, 4 p.
http://www.searchanddiscovery.com/pdfz/documents/2018/51485wang/ndx_wang.pdf.html
- Wang, T., and R.P. Philp, 2019, Oil families and inferred source rocks of the Woodford-Mississippian tight oil play in northcentral Oklahoma: AAPG Bulletin, v. 103, p. 871-903.
- Wang, T., D.-L. Zhang, X.-Y. Yang, J.-Q. Xu, C. Matthew, and Y.-J. Tang, 2020, Light hydrocarbon geochemistry: insight into oils/condensates families and inferred source rocks of the Woodford-Mississippian tight oil play in north-central Oklahoma, USA: Petroleum Science, v. 17, p. 582-597.
- Watney, W.L., D.R. Boardman, N.H. Suneson, J. Puckette, T.L. Thompson, J.H. Doveton, E.K. Franseen, J.R. Victorine, K. Stalder, and R. Walton, 2009, Preliminary high-resolution stratigraphic analysis of the Caney and Woodford Shales in a continuous shallow corehole (KGS-OGS Current #1) from the Lawrence Uplift in Pontotoc County, Oklahoma: Kansas Geological Survey, Open File # 2009-5, 4 slides.
https://www.kgs.ku.edu/PRS/publication/2009/OFR09_5/Watney-OKShaleGas-5-20-09.pdf
- Watney, W.L., D.R. Boardman, J.O. Puckette, J.R. Victorine, J.H. Doveton, A. Cruse, and N. Suneson, 2013, Analysis of the Upper Devonian to Lower Carboniferous (Frasnian-Tournaisian) Woodford Shale in the KGS-OGS Current #1, southwestern Arkoma Basin: AAPG Search and Discovery Article #50815, 41 slides.
http://www.searchanddiscovery.com/documents/2013/50815watney/ndx_watney.pdf
- Watson, B.P., 2008, Internal stratigraphy, composition, and depositional setting of the Woodford Shale in southern Seminole County, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 141 p.
- Wavrek, D.A., 1989, Characterization of oil types along Hewitt trend, Carter County, Oklahoma: implications for future exploration [abstract]: AAPG Bulletin, v. 73, p. 424.
- Wavrek, D.A., 1992, Characterization of oil types in the Ardmore and Marietta basins, southern Oklahoma aulacogen, in K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: OGS Circular 93, p. 185-195.
- Weber, J.L., 1992, Organic matter content of outcrop samples from the Ouachita Mountains, Oklahoma, in K.S. Johnson and B.J. Cardott, eds., Source rocks in the southern Midcontinent, 1990 symposium: Oklahoma Geological Survey Circular 93, p. 347-352.
- Webster, R.E., 1980, Evolution of S. Oklahoma aulacogen: Oil and Gas Journal, v. 78, no. 7, p. 150-172.

- Welte, D.H., H.W. Hagemann, A. Hollerbach, and D. Leythaeuser, 1975, Correlation between petroleum and source rock, *in* J.A. Momper, chairman, Time and temperature relations affecting the origin, expulsion, and preservation of oil and gas: 9th World Petroleum Congress Proceedings, v. 2, Applied Science publishers, London, p. 179-191. (visual kerogen analysis of Woodford, p. 180-181, 186, fig. 5)
- Weng, R.-F., W.-L. Huang, C.-L. Kuo, and S. Inan, 2003, Characterization of oil generation and expulsion from coals and source rocks using diamond anvil cell pyrolysis: *Organic Geochemistry*, v. 34, p. 771-787.
- Whittington, R.A., II, 2009, Clay mineralogy and illite crystallinity in the Late Devonian to Early Mississippian Woodford Shale in the Arbuckle Mountains, Oklahoma, USA: Atlanta, GA, Georgia State University, unpublished M.S. thesis, 138 p.
- Willey, T.J., 2015, Handheld XRF as a proxy for onsite evaluation of unconventional targets: an investigation of the Woodford Shale, Anadarko Basin, Oklahoma: Manhattan, Kansas State University, unpublished M.S. thesis.
- Willis, B., 1912, Index to the stratigraphy of North America: U.S. Geological Survey Professional Paper 71, 894 p. (Woodford Shale, p. 273-274)
- Wilson, E.N., W.L. Watney, and G.M. Grammer, 2019, An overview of the giant heterogeneous Mississippian carbonate system of the Midcontinent: Ancient structure, complex stratigraphy, conventional traps, and unconventional technology in a high fluid volume world, *in* G.M. Grammer, J.M. Gregg, J.O. Puckette, P. Jaiswal, S.J. Mazzullo, M.J. Pranter, and R.H. Goldstein, eds., Mississippian reservoirs of the Midcontinent: AAPG Memoir 122, p. 1-24.
- Wilson, L.R., 1958, Oklahoma's oldest fossil trees: *Oklahoma Geology Notes*, v. 18, p. 172-176.
- Wilson, L.R., 1963, A geological history of Oklahoma's vegetation: *Shale Shaker*, v. 13, p. 4-20.
- Wilson, L.R., and J.B. Urban, 1963, An *Incertae Sedis* palynomorph from the Devonian of Oklahoma: *Oklahoma Geology Notes*, v. 23, p. 16-19.
- Wilson, L.R., and J.J. Skvarla, 1967, Electron-microscope study of the wall structure of *Quisquilites* and *tasmanites*: *Oklahoma Geology Notes*, v. 27, p. 54-63.
- Wilson, L.R., and J.J. Skvarla, 1971, Electron microscope studies of the marine palynomorph *Quisquilites*: *Micropaleontology*, v. 17, p. 239-243.
- Wilson, M.E., and P. Berendsen, 1988, Chattanooga Shale isopach: Kansas Geological Survey Open-File Report 88-6, 1 plate, scale 1:1,000,000.
- Winters, J.C., J.A. Williams, and M.D. Lewan, 1983, A laboratory study of petroleum generation by hydrous pyrolysis, *in* M. Bjorøy, and others, eds., *Advances in organic geochemistry 1981*: New York, John Wiley and Sons, p. 524-533.
- Wise, O.A., and W.M. Caplan, 1979, Silurian and Devonian rocks of northern Arkansas: Arkansas Geological Commission Information Circular 25, 14 p.
- Witzke, B.J., and P.H. Heckel, 1988, Paleoclimatic indicators and inferred Devonian paleolatitudes of Euramerica, *in* N.J. McMillan, A.F. Embry, and D.J. Glass, eds., *Regional syntheses*, vol. 1 of *Devonian of the world*: Canadian Society of Petroleum Geologists, p. 49-63.
- Woodhouse, J.C., II, 1989, Fracturing in a "novaculite" reservoir: a surface example from Black Knob Ridge, Atoka County, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 140 p.

- Work, P.L., 1975, Digitized well logs can help boost success in exploring shale intervals: Oil and Gas Journal, v. 73, no. 7, p. 84-88.
- Wright, W.F., 1963, Woodford: source of 10% of Permian basin oil reserves: Oil and Gas Journal, v. 61, no. 40, p. 188-190.
- Zemmels, I., P.L. Grizzle, C.C. Walters, and F.R. Haney, 1985, Devonian novaculites as source of oil in Marathon-Ouachita thrust system [abstract]: AAPG Bulletin, v. 69, p. 318-319.
- Zemmels, I., D.M. Tappmeyer, and C.C. Walters, 1987, Source of shallow Simpson Group oils in Murray County, Oklahoma [abstract]: AAPG Bulletin, v. 71, p. 245.
- Zemmels, I., and C.C. Walters, 1987, Variation of oil composition in vicinity of Arbuckle Mountains, Oklahoma [abstract]: AAPG Bulletin, v. 71, p. 998-999.
- Zeszotarski, J.C., R.R. Chromik, R.P. Vinci, M.C. Messmer, R. Michels, and J.W. Larsen, 2004, Imaging and mechanical property measurements of kerogen via nanoindentation: Geochimica et Cosmochimica Acta, v. 68, p. 4113-4119.
- Zhang, J., 2016, Comprehensive reservoir characterization of the Woodford Shale in parts of Garfield and Kingfisher counties, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 142 p.
- Zhang, J., and R. Slatt, 2019, The significance of karst unconformities on overlying resource shales: Lessons learned from the Devonian Woodford Formation applied to the Permian Wolfcamp Shale: Interpretation, v. 7, no. 4, p. SK33-SK43.
- Zheng, T., S. Grohmann, A. Arysanto, A. Baniasad, Q. Zhang, and R. Littke, 2023, Petrographical and geochemical investigation on maturation and primary migration in intact source rock micro-plugs: Insight from hydrous pyrolysis on Woodford Shale: International Journal of Coal Geology, v. 266, 104170.
- Zheng, T., R. Littke, L. Zieger, J. Schmatz, C. Hartkopf-Fröder, L. Burnaz, and S. Grohmann, 2023, Kerogen structure and porosity in Woodford Shale before and after hydrous closed-system pyrolysis: International Journal of Coal Geology, v. 279, 104375.
- Zou, F., 2015, Integrated study on sequence stratigraphic framework of deepwater Jackfork Group and Woodford Shale: Norman, Oklahoma, University of Oklahoma, unpublished Ph.D. dissertation, 244 p.
- Zou, F., and R.M. Slatt, 2015, Relationships between bioturbation, microfacies and chemostratigraphy and their implication to the sequence stratigraphic framework of the Woodford Shale in Anadarko Basin, Oklahoma, USA: Unconventional Resources Technology Conference, URTeC 2153831, 19 p.