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Publications

May 9, 2006

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Publications

Reports, Monographs, Brochures, Pamphlets, Bulletins

- Dutton, S. P., Kim, E. M., Broadhead, R. F., Breton, C. L., Raatz, W. D., Ruppel, S. C., and Kerans, Charles, 2005, Play analysis and digital portfolio of major oil reservoirs in the Permian Basin: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations No. 271, 287 p., CD-ROM.
- Kerans, Charles, and Fitchen, W. M., 1995, Sequence hierarchy and facies architecture of a carbonate-ramp system: San Andres Formation of Algerita Escarpment and western Guadalupe Mountains, West Texas and New Mexico: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations No. 235, 86 p., 2 pl.
- Ruppel, S. C., Kerans, Charles, Major, R. P., and Holtz, M. H., 1995, Controls on reservoir heterogeneity in Permian shallow-water-platform carbonate reservoirs, Permian Basin: implications for improved recovery: The University of Texas at Austin, Bureau of Economic Geology Geological Circular 95-2, 30 p.
- Lucia, F. J., Kerans, Charles, and Vander Stoep, G. W., 1992, Characterization of a karsted, highenergy, ramp-margin carbonate reservoir: Taylor-Link West San Andres Unit, Pecos County, Texas: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations No. 208, 46 p.
- Tyler, Noel, Bebout, D. G., Garrett, C. M., Jr., Guevara, E. H., Hocott, C. R., Holtz, M. H., Hovorka, S. D., Kerans, Charles, Lucia, F. J., Major, R. P., and Ruppel, S. C., 1991, Integrated characterization of Permian Basin reservoirs, University Lands, West Texas: targeting the remaining resource for advanced oil recovery: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations No. 203, 136 p.
- Kerans, Charles, 1990, Depositional systems and karst geology of the Ellenburger Group (Lower Ordovician), subsurface West Texas: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations No. 193, 63 p., 6 pl.
- Kerans, Charles, 1989, Karst-controlled reservoir heterogeneity and an example from the Ellenburger Group (Lower Ordovician) of West Texas: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations No. 186, 40 p.
- Kerans, Charles, 1985, Petrology of Devonian and Carboniferous carbonates of the Canning and Bonaparte Basins: Western Australian Mining and Petroleum Research Institute, Report No. 12, 384 p.
- Kerans, Charles, Ross, G. M., and Donaldson, J. A., 1980, Stratigraphy, sedimentation and tectonism in the Hornby Bay and Dismal Lakes Groups, Proterozoic, NWT: Department of Indian Northern Affairs, Open-File Report, 25 p.

Guidebooks

- Lucia, Jerry, Kerans, Charlie, and Loucks, Robert, 2004, Collapse Breccia Field Trip: Ordovician El Paso and Montoya Groups, Southern Franklin Mountains, El Paso, Texas: The University of Texas at Austin, Bureau of Economic Geology Field Trip Guidebook for Hedberg Research Conference, unpaginated [21 p.].
- Kerans, Charles, Jennings, James, and Lucia, Jerry, 2004, Algerita Escarpment field trip: The University of Texas at Austin, Bureau of Economic Geology, Reservoir Characterization Research Laboratory Field Trip Guidebook for Hedberg Research Conference, variously paginated.
- Janson, Xavier, Kerans, Charles, and Bellian, Jerry, 2004, Carboniferous and Ordovician digital outcrop studies: The University of Texas at Austin, Bureau of Economic Geology, RCRL Laboratory Field Trip Guidebook, 86 p.
- Kerans, Charles, Lucia, Jerry, Bellian, Jerry, Loucks, Bob, and Playton, Ted, 2003, Cretaceous buildups and Paleokarst systems, Lake Medina area, South Texas: The University of Texas at Austin, Bureau of Economic Geology RCRL Annual Field Trip Guidebook, 29 p.
- Janson, Xavier, Kerans, Charles, Bellian, J. A., and Playton, T. E., 2003, 3D modeling of mixed siliciclastic-carbonate cycles in the Upper Pennsylvanian Holder Formation, Dry Canyon area, Oro Grande Basin: The University of Texas at Austin, Bureau of Economic Geology, RCRL Laboratory Field Trip Guidebook, 46 p.
- Kerans, Charles, Bellian, Jerry, and Playton, Ted, 2002, 3D modeling of carbonate heterogeneity styles: The University of Texas at Austin, Bureau of Economic Geology Reservoir Characterization Research Laboratory annual field trip guidebook, 48 p.
- Kerans, Charles, Kempter, K., Rush, Jason, and Tinker, S. W., 1999, Pennsylvanian stratigraphic framework and distribution of reservoir facies, Big Hatchet Mountains, southwestern New Mexico: The University of Texas at Austin, Bureau of Economic Geology RCRL Annual Field Trip Guidebook, 44 p.
- Kerans, Charles, Kempter, K., and Rush, Jason, 1998, Anatomy of a coastal paleokarst, Abo Formation (Leonardian), Apache Canyon, West Texas: The University of Texas at Austin, Bureau of Economic Geology Field Trip Guidebook, 75 p.
- Kerans, Charles, and Tinker, S. W., 1998, Process approach to sequence stratigraphic reservoir model construction: American Association of Petroleum Geologists Field Seminar, Carlsbad, New Mexico Notebook and Exercises, unpaginated.
- Kerans, Charles, Zahm, L., Kempter, K., and Ward, W. B., 1997, Sequence stratigraphy of reservoir analog Cretaceous (Albian) carbonates, Pecos River, West Texas: The University of Texas at Austin, Bureau of Economic Geology Field Trip Guidebook, 85 p.
- Kerans, C., Fitchen, W., Zahm, L., Ward, B., Osleger, D., Barnaby, R., and Jennings, J., 1997, Carbonate reservoir heterogeneity styles within a sequence stratigraphic framework: Albian (Cretaceous), Pecos River Canyon: The University of Texas at Austin, Bureau of Economic Geology, RCRL Laboratory Field Trip Guidebook, 130 p.
- Kerans, Charles, Barnaby, R. J., Ward, W. B., and Jennings, J. W., Jr., 1996, Painted Canyon window, tide-dominated foreshore-shoreface rudist grainstones and bafflestones, Albian 19 HST: The University of Texas at Austin, Bureau of Economic Geology Field guide for Carbonate Reservoir Characterization Research Laboratory annual meeting, 47 p.
- Kerans, Charles, Fitchen, W. M., Kempter, K., and Zahm, L., 1996, High-frequency sequence framework of Cretaceous (Albian) carbonate ramp reservoir analog outcrops, Pecos River Canyon, northwestern Gulf of Mexico Basin: The University of Texas at Austin, Bureau of Economic Geology Field Trip Guidebook, 105 p.
- Kerans, Charles, Bebout, D. G., and Kempter, K., 1994, Cycle hierarchy and sequence framework for predicting reservoir heterogeneity styles—Fredericksburg Division, Cretaceous (Albian) of the Austin area: The University of Texas at Austin, Bureau of Economic Geology guidebook prepared for StrataModel Conference, 34 p.
- Bebout, D. G., and Kerans, Charles, 1993, Guide to the Permian Reef Geology Trail, McKittrick Canyon, Guadalupe Mountains National Park, West Texas: The University of Texas at Austin, Bureau of Economic Geology Guidebook 26, 48 p.

Ruppel, S. C., and Kerans, Charles, 1987, Paleozoic buildups and associated facies, Llano Uplift, Central Texas: Austin Geological Society Guidebook 10, 33 p.

Chapters/Sections

- Osleger, D. A., Barnaby, Roger, and Kerans, Charles, 2004, Chapter 5. A laterally accreting grainstone margin from the Albian of northern Mexico: outcrop model for Cretaceous carbonate reservoirs, *in* Grammer, G. M., Harris, P. M., and Eberli, G. P., eds., Integration of outcrop and modern analogs in reservoir modeling: American Association of Petroleum Geologists, AAPG Memoir 80, p. 93–108.
- French, V. L., and Kerans, Charles, 2004, Chapter 9. Accommodation-controlled systems-tractspecific facies partitioning and resulting geometric development of reservoir grainstone rampcrest shoal bodies, *in* Grammer, G. M., Harris, P. M., and Eberli, G. P., eds., Integration of outcrop and modern analogs in reservoir modeling: American Association of Petroleum Geologists, AAPG 80 Memoir, p. 171–190.
- Hovorka, S. D., Nance, H. S., and Kerans, Charles, 1994, Chapter 19, Parasequence geometry as a control on permeability evolution: examples from the San Andres and Grayburg Formations in the Guadalupe Mountains, New Mexico, *in* Loucks, R. G., and Sarg, J. F., eds., Carbonate sequence stratigraphy: recent developments and applications: American Association of Petroleum Geologists, Memoir 57, p. 493–514.
- Kerans, Charles, and Nance, H. S., 1991, High frequency cyclicity and regional depositional patterns of the Grayburg Formation, Guadalupe Mountains, New Mexico, *in* Meader-Roberts, Sally, Candelaria, M. P., and Moore, G. E., eds., Sequence stratigraphy, facies, and reservoir geometries of the San Andres, Grayburg, and Queen Formations, Guadalupe Mountains, New Mexico and Texas: Society of Economic Paleontologists and Mineralogists, Permian Basin Section, and Society of Sedimentary Geology, Publication 91-32, p. 53–70.
- Kerans, Charles, and Nance, H. S., 1991, Road log: third day, Grayburg Formation on the Shattuck Valley wall, *in* Meader-Roberts, Sally, Candelaria, M. P., and Moore, G. E., eds., Sequence stratigraphy, facies, and reservoir geometries of the San Andres, Grayburg, and Queen Formations, Guadalupe Mountains, New Mexico and Texas: Society of Economic Paleontologists and Mineralogists, Permian Basin Section, and Society of Sedimentary Geology, Publication 91-32, p. 91–96.
- Weber, L. J., Jr., Kerans, Charles, and Nance, H. S., 1991, Road log: second day, Carlsbad, New Mexico, to Algerita Escarpment via Dark Canyon, *in* Meader-Roberts, Sally, Candelaria, M. P., and Moore, G. E., eds., Sequence stratigraphy, facies, and reservoir geometries of the San Andres, Grayburg, and Queen Formations, Guadalupe Mountains, New Mexico and Texas: Society of Economic Paleontologists and Mineralogists, Permian Basin Section, and Society of Sedimentary Geology, Publication 91-32, p. 71–90.
- Kerans, Charles, 1991, Geologic characterization of San Andres reservoirs: outcrop-analog mapping, Algerita Escarpment, Guadalupe Mountains, and Seminole San Andres unit, northern Central Basin Platform, *in* Kerans, Charles, Lucia, F. J., Senger, R. K., Fogg, G. E., Nance, H. S., Kasap, Ekrem, and Hovorka, S. D., Characterization of reservoir heterogeneity in carbonate-ramp systems, San Andres/Grayburg, Permian Basin: The University of Texas at Austin, Bureau of Economic Geology, Reservoir Characterization Research Laboratory, final contract report, p. 3– 46.
- Playford, P. E., Hurley, N. F., Kerans, Charles, and Middleton, M. F., 1989, Reefal platform development, Devonian of the Canning Basin, western Australia, *in* Controls on carbonate platform and basin development: Society of Economic Paleontologists and Mineralogists, Special Publication No. 44, p. 187–202.
- Kerans, Charles, and Donaldson, J. A., 1989, Deepwater conical stromatolite reef, Sulky Formation (Dismal Lakes Group), Middle Proterozoic, Northwest Territories, *in* Geldsetzer, H. H. J., James, N. P., and Tebbutt, G. E., eds., Reefs, Canada and adjacent area: Canadian Society of Petroleum Geologists, Memoir 13, p. 81–88.

- Kerans, Charles, and Lucia, F. J., 1989, Recognition of second, third, and fourth/fifth order scales of cyclicity in the El Paso Group and their relation to genesis and architecture of Ellenburger reservoirs, *in* Cunningham, B. K., and Cromwell, D. W., eds., The lower Paleozoic of West Texas and southern New Mexico—modern exploration concepts: Permian Basin Section, Society of Economic Paleontologists and Mineralogists, Publication No. 89-31, p. 105–110.
- Kerans, Charles, and Donaldson, J. A., 1988, Proterozoic paleokarst profile, Dismal Lakes Group, N.W.T., Canada, *in* James, N. P., and Choquette, P. W., eds., Paleokarst: New York, Springer-Verlag, p. 167–182.
- Kerans, Charles, Hurley, N. F., and Playford, P. E., 1986, Marine diagenesis in Devonian reef complexes of the Canning Basin, Western Australia, *in* Schroeder, J. H., and Purser, B. H., eds., Reef diagenesis: Berlin, Springer Verlag, p. 357–380.

<u>Articles</u>

- Bellian, J. A., Kerans, Charles, and Jennette, D. C., 2005, Digital outcrop models: applications of terrestrial scanning lidar technology in stratigraphic modeling: Journal of Sedimentary Research, v. 75, no. 2, p. 166–176.
- Dutton, S. P., Kim, E. M., Broadhead, R. F., Raatz, W. D., Breton, C. L., Ruppel, S. C., and Kerans, Charles, 2005, Play analysis and leading-edge oil-reservoir development methods in the Permian basin: increased recovery through advanced technologies: American Association of Petroleum Geologists Bulletin, v. 89, no. 5, p. 553–576.
- Kerans, C., 2005, Field trip stop 4: Lower Glen Rose rudist bioherms, Pipe Creek, Bandera County, *in* Filkorn, H. F., Johnson, C. C., Molineux, A., and Scott, R. W., eds., Seventh International Congress on Rudists: abstracts and post-congress field guide, p. 156–166.
- Scott, R. W., and Kerans, Charles, 2004, Late Albian carbonate platform chronostratigraphy, Devils River Formation cycles, West Texas: Courier Forschungsinstitut Senckenberg, v. 247, p. 129– 148.
- Zeng, Hongliu, and Kerans, Charles, 2003, Seismic frequency control on carbonate seismic stratigraphy: a case study of the Kingdom Abo sequence, West Texas: American Association of Petroleum Geologists Bulletin, v. 87, no. 2, p. 273–293.
- Lucia, F. J., Kerans, Charles, and Jennings, J. W., Jr., 2003, Carbonate reservoir characterization: Journal of Petroleum Technology, v. 55, no. 6, p. 70–72.
- Loucks, R. G., and Kerans, Charles, 2003, Lower Cretaceous Glen Rose "Patch Reef" reservoir in the Chittim Field, Maverick County, South Texas: Gulf Coast Association of Geological Societies Transactions, v. 53, p. 490–503.
- Kerans, Charles, and Kempter, Kirt, 2002, Hierarchical stratigraphic analysis of a carbonate platform, Permian of the Guadalupe Mountains: The University of Texas at Austin, Bureau of Economic Geology (American Association of Petroleum Geologists/Datapages Discovery Series No. 5), CD-ROM.
- Kerans, Charles, 2002, Styles of rudist buildup development along the northern margin of the Maverick Basin, Pecos River Canyon, southwest Texas: Gulf Coast Association of Geological Societies Transactions, v. 52, p. 501–516.
- Kerans, Charles, and Loucks, R. G., 2002, Stratigraphic setting and controls on occurrence of highenergy carbonate beach deposits: Lower Cretaceous of the Gulf of Mexico: Gulf Coast Association of Geological Societies Transactions, v. 52, p. 517–526.
- Playton, T. E., and Kerans, Charles, 2002, Slope and toe-of-slope deposits shed from a late Wolfcampian tectonically active carbonate ramp margin: Gulf Coast Association of Geological Societies Transactions, v. 52, p. 811–820.
- Kerans, Charles, Kempter, K., and Rush, Jason, 2000, Facies and stratigraphic controls on a coastal paleokarst, Lower Permian, Apache Canyon, West Texas, *in* Lindsay, R. F., Trentham, R. C., Ward, R. F., and Smith, A. H., eds., Classic Permian geology of West Texas and southeastern New Mexico: West Texas Geological Society, p. 55–81.

- Kerans, Charles, 2000, Stratigraphic framework of the San Andres Formation, Algerita Escarpment, Guadalupe Mountains, New Mexico, *in* Lindsay, R. F., Trentham, R. C., Ward, R. F., and Smith, A. H., eds., Classic Permian geology of West Texas and southeastern New Mexico: 75 years of Permian Basin oil and gas exploration and development: West Texas Geological Society, Geo 2000 field trip guidebook, Publication 00-108, p. 153–178.
- Kerans, Charles, 1999, Stratigraphic correlation surfaces and 3-D reservoir model construction: constraints from Walther's law models and outcrop analog data, *in* Transactions, Gulf Coast Section SEPM 19th Annual Bob F. Perkins Research Conference, December 5–8, Houston: p. 205–211.
- Kerans, Charles, and Tinker, S. W., 1999, Extrinsic stratigraphic controls on development of the Capitan Reef Complex, *in* Geologic framework of the Capitan Reef: SEPM (Society for Sedimentary Geology), Special Publication No. 65, p. 15–36.
- Wang, F. P., Lucia, F. J., and Kerans, Charles, ed., 1998, Integrated reservoir characterization study of a carbonate ramp reservoir: Seminole San Andres Unit, Gaines County, Texas: SPE Reservoir Evaluation & Engineering, v. 1, no. 2, p. 105–113.
- Wang, F. P., Lucia, F. J., and Kerans, Charles, ed., 1998, Modeling dolomitized carbonate-ramp reservoirs: a case history of the Seminole San Andres unit --Part 1, petrophysical and geologic characterizations: Geophysics, v. 63, no. 6, p. 1866–1875.
- Wang, F. P., Dai, J., and Kerans, Charles, 1998, Modeling dolomitized carbonate-ramp reservoirs: a case study of the Seminole San Andres unit—Part II, seismic modeling, reservoir geostatistics, and reservoir simulation: Geophysics, v. 63, no. 6, p. 1876–1884.
- Kerans, Charles, 1997, What's new in carbonates for 1996: Geotimes, v. 42, no. 2, p. 51-52.
- Wang, F. P., Lucia, F. J., and Kerans, Charles, 1997, Modeling dolomitized carbonate ramp reservoirs: a case study of Seminole San Andres Unit and outcrop analogs: The Leading Edge, September, p. 5.
- Hammes, Ursula, Kerans, Charles, and Lucia, F. J., 1996, Development of a multiphase cave system: Ellenburger Formation, Lower Ordovician, West Texas, *in* Martin, R. L., ed., Permian Basin oil and gas fields: keys to success that unlock future reserves: West Texas Geological Society, Publication No. 96-101, p. 139–143.
- Hammes, Ursula, Lucia, F. J., and Kerans, Charles, 1996, Reservoir heterogeneity in karst-related reservoirs: Lower Ordovician Ellenburger Group, West Texas, *in* Stoudt, E. L., ed., Precambrian– Devonian geology of the Franklin Mountains, West Texas—analogs for exploration and production in Ordovician and Silurian karsted reservoirs in the Permian Basin: West Texas Geological Society, Publication No. 96-100, p. 99–117.
- Kerans, Charles, Banner, J., and Goldhammer, R. K., 1996, Carbonates: Geotimes, v. 41, no. 2, p. 52.
- Kerans, Charles, and Fitchen, W. M., 1996, Stratigraphic constraints on the origin of Brushy Canyon sandstones, *in* DeMis, W. D., and Cole, A. G., eds., The Brushy Canyon play in outcrop and subsurface: concepts and examples: guidebook: Permian Basin Section, SEPM, Publication 96-38, p. 61–68.
- Ye, Qiucheng, and Kerans, Charles, 1996, Reconstructing Permian eustacy from 2-D backstripping and its use in forward models, *in* DeMis, W. D., and Cole, A. G., eds., The Brushy Canyon play in outcrop and subsurface: concepts and examples: guidebook: Permian Basin Section, SEPM, Publication 96-38, p. 69–74.
- Wang, F. P., Lucia, F. J., and Kerans, Charles, 1996, Integrated reservoir characterization of a carbonate ramp reservoir: Seminole San Andres Unit, Gaines County, Texas, *in* Proceedings of Formation Evaluation and Reservoir Geology, 1996 SPE Annual Technical Conference and Exhibition, October 7-9, Denver, p. 237–250.
- Lucia, F. J., Kerans, Charles, and Wang, F. P., 1995, Fluid-flow characterization of dolomitized carbonate-ramp reservoirs: San Andres Formation (Permian) of Seminole field and Algerita Escarpment, Permian Basin, Texas and New Mexico, *in* Stoudt, E. L., and Harris, P. M., eds., Hydrocarbon reservoir characterization: geologic framework and flow unit modeling: SEPM (Society for Sedimentary Geology), SEPM Short Course No. 34, p. 129–153.

- Kerans, Charles, 1995, Stratigraphic framework of the San Andres Formation, Algerita Escarpment, Guadalupe Mountains, New Mexico, *in* The San Andres in outcrop and subsurface: guidebook to the Permian Basin–SEPM 1995 Annual Field Conference: Permian Basin Section, SEPM, Publication 95-37, p. 7–30.
- Zahm, L., Kerans, Charles, and Wilson, J. L., 1995, Cyclostratigraphic and ichnofacies analysis of the Upper Albian Salmon Peak Formation, Maverick: Gulf Coast Association of Geological Societies Transactions, v. 45, p. 595–604.
- Kerans, Charles, Lucia, F. J., and Wang, F. P., 1994, Integration of rock-fabric facies and geostatistical models within a sequence stratigraphic framework: implications of the West Texas experience for recovery in Middle Eastern carbonate ramp reservoirs, *in* Al-Husseini, M. I., ed., GEO '94: the Middle East petroleum geosciences, volume II: selected Middle East papers from the Middle East Geoscience Conference: Manama, Bahrain, Gulf PetroLink, p. 579–590.
- Kerans, Charles, Lucia, F. J., and Senger, R. K., 1994, Integrated characterization of carbonate ramp reservoirs using Permian San Andres Formation outcrop analogs: American Association of Petroleum Geologists Bulletin, v. 78, no. 2, p. 181–216.
- Kerans, Charles, and Lucia, F. J., 1994, Taylor Link West (San Andres) field, *in* Pausé, Paul, and Entzminger, David, eds., Oil and gas fields in West Texas, symposium volume VI: West Texas Geological Society Publication No. 94-96, p. 251–259.
- Wang, F. P., Lucia, F. J., and Kerans, Charles, 1994, Critical scales, upscaling, and modeling of shallow-water carbonate reservoirs: Society of Petroleum Engineers, Paper No. SPE 27715, p. 765–773.
- Kerans, Charles, and Ruppel, S. C., 1994, San Andres sequence framework, Guadalupe Mountains: implications for San Andres type section and subsurface reservoirs, *in* Garber, R. A., and Keller, D. R., eds., Field guide to the Paleozoic section of the San Andres Mountains: Permian Basin Section—SEPM (Society for Sedimentary Geology), Publication No. 94-35, p. 105–115.
- Ruppel, S. C., Kerans, Charles, Major, R. P., and Holtz, M. H., 1994, Controls on reservoir heterogeneity in Permian shallow-water platform carbonate reservoirs, U.S.A.: implications for secondary recovery: The Arabian Journal for Science and Engineering, v. 19, no. 2B, p. 215–236.
- Senger, R. K., Lucia, F. J., Kerans, Charles, Ferris, Malcolm, and Fogg, G. E., 1993, Dominant control on reservoir-flow behavior in carbonate reservoirs as determined from outcrop studies, *in* Linville, Bill, ed., Burchfield, T. E., and Wesson, T. C., chairmen, Reservoir characterization III: Proceedings, Third International Reservoir Characterization Technical Conference, Tulsa, November 1991:Tulsa, PennWell Books, p. 107–150.
- Bebout, D. G., Kerans, Charles, and Harris, P. M., 1993, Introduction, *in* Bebout, D. G., and Kerans, Charles, eds., Guide to the Permian Reef Geology Trail, McKittrick Canyon, Guadalupe Mountains National Park, West Texas: The University of Texas at Austin, Bureau of Economic Geology, Guidebook 26, p. 1–4.
- Harris, P. M., Kerans, Charles, and Bebout, D. G., 1993, Ancient outcrop and modern examples of platform carbonate cycles—implications for subsurface correlation and understanding reservoir heterogeneity, *in* Loucks, R. G., and Sarg, J. F., eds., Carbonate sequence stratigraphy: recent developments and applications: American Association of Petroleum Geologists, Memoir 53, p. 475–492.
- Hovorka, S. D., Nance, H. S., and Kerans, Charles, 1993, Parasequence geometry as a control on permeability evolution: examples from the San Andres and Grayburg Formations in the Guadalupe Mountains, New Mexico, *in* Loucks, R. G., and Sarg, J. F., eds., Carbonate sequence stratigraphy: recent developments and applications: American Association of Petroleum Geologists, Memoir 53, p. 493–514.
- Kerans, Charles, 1993, Review of Sedimentology and sequence stratigraphy of reefs and carbonate platforms by Wolfgang Schlager, 1992, AAPG Continuing Education Course Note Series No. 34: Journal of Sedimentary Petrology, v. 63, no. 2, p. 313.
- Kerans, Charles, and Harris, P. M., 1993, Outer shelf and shelf crest, *in* Bebout, D. G., and Kerans, Charles, eds., Guide to the Permian Reef Geology Trail, McKittrick Canyon, Guadalupe

Mountains National Park, West Texas: The University of Texas at Austin, Bureau of Economic Geology, Guidebook 26, p. 32–43.

- Lucia, F. J., Kerans, Charles, and Senger, R. K., 1992, Defining flow units in dolomitized carbonateramp reservoirs: Society of Petroleum Engineers, Paper No. SPE 24702, p. 399–406.
- Tyler, Noel, Major, R. P., Bebout, D. G., Kerans, Charles, Lucia, F. J., Ruppel, S. C., and Holtz, M. H., 1992, Styles of heterogeneity in dolomitized platform carbonate reservoirs: examples from the Central Basin Platform of the Permian Basin, southwestern USA: Journal of Petroleum Science and Engineering, v. 6, p. 301–339.
- Kerans, Charles, 1992, Chapter II: Outcrop delineation of carbonate sand body distribution in a sequence-stratigraphic framework, *in* Tyler, Noel, Barton, M. D., Bebout, D. G., Fisher, R. S., Grigsby, J. D., Guevara, Edgar, Holtz, Mark, Kerans, Charles, Nance, H. S., and Levey, R. A., eds., Characterization of oil and gas reservoir heterogeneity: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the U.S. Department of Energy under contract no. DE-FG22-89BC-14403, p. 7–39.
- Senger, R. K., Lucia, F. J., Kerans, Charles, Ferris, Malcolm, and Fogg, G. E., 1992, Geostatistical/geological permeability characterization of carbonate ramp deposits in San Andres outcrop, Algerita Escarpment, New Mexico: Society of Petroleum Engineers, Paper No. SPE 23967, p. 287–302.
- Kerans, Charles, Fitchen, W. M., Gardner, M. H., Sonnenfeld, M. D., Tinker, S. W., and Wardlaw, B. R., 1992, Styles of sequence development within uppermost Leonardian through Guadalupian strata of the Guadalupe Mountains, Texas and New Mexico, *in* Mruk, D. H., and Curran, B. C., eds., Permian basin exploration and production strategies: applications of sequence stratigraphic and reservoir characterization concepts: West Texas Geological Society, Symposium No. 92-91, p. 1–7.
- Holtz, M. H., and Kerans, Charles, 1992, Characterization and categorization of West Texas and Ellenburger reservoirs, *in* Candelaria, M. P., and Reed, C. L., eds., Paleokarst, karst-related diagenesis, and reservoir development: examples from Ordovician–Devonian age strata of West Texas and the Mid-Continent: Permian Basin Section, SEPM (Society for Sedimentary Geology), Field Trip Guidebook, p. 45–54.
- Kerans, Charles, 1991, Description and interpretation of karst-related breccia fabrics, Ellenburger Group, West Texas, *in* Johnson, K. S., ed., Arbuckle Group core workshop and field trip: Oklahoma Geological Survey, Special Publication 91-3, p. 145–156.
- Milling, M. E., Jackson, M. P. A., Kerans, Charles, and Schultz-Ela, D., 1991, Advanced geoscience technology can optimize hydrocarbon exploration and recovery efficiency: Geotimes, v. 36, no. 3, p. 20–22.
- Milling, M. E., Jackson, M. P. A., Kerans, Charles, and Schultz-Ela, D., 1991, Advanced geoscience technology can optimize hydrocarbon exploration and recovery efficiency: Houston Geological Society Bulletin, v. 34, no. 1, p. 52–55.
- Pelechaty, S. M., James, N. P., Kerans, Charles, and Grotzinger, J. P., 1991, A middle Proterozoic palaeokarst unconformity and associated sedimentary rocks, Elu Basin, northwest Canada: Sedimentology, v. 38, p. 775–797.
- Senger, R. K., Lucia, F. J., Kerans, Charles, Ferris, Malcolm, and Fogg, G. E., 1991, Dominant control on reservoir-flow behavior in carbonate reservoirs as determined from outcrop studies, *in* Linville, Bill, Burchfield, T. E., and Wesson, T. C., eds., Reservoir characterization III, Proceedings, Third International Reservoir Characterization Technical Conference: IIT Research Institute, National Institute for Petroleum and Energy Research, and U.S. Department of Energy, v. 1, p. 109–150.
- Wallace, M. W., Kerans, Charles, Playford, P. E., and McManus, Andrew, 1991, Burial diagenesis in the Upper Devonian reef complexes of the Geikie Gorge region, Canning basin, western Australia: American Association of Petroleum Geologists Bulletin, v. 75, no. 6, p. 1018–1038.
- Kerans, Charles, 1990, Karst-controlled reservoir heterogeneity in Ellenburger Group carbonates of West Texas: reply: American Association of Petroleum Geologists Bulletin, v. 74, no. 7, p. 1124– 1125.

- Garrett, C. M., Jr., and Kerans, Charles, 1990, Correlation of San Andres and Grayburg (Guadalupian) reservoirs, University Lands, Central Basin Platform, *in* Bebout, D. G., and Harris, P. M., eds., Geologic and engineering approaches in evaluation of San Andres/Grayburg hydrocarbon reservoirs—Permian Basin: The University of Texas at Austin, Bureau of Economic Geology, p. 49–52.
- Kerans, Charles, and Lucia, F. J., 1989, Recognition of second, third, and fourth/fifth order scales of cyclicity in the El Paso Group and their relation to genesis and architecture of Ellenburger reservoirs, *in* Cunningham, B. K., and Cromwell, D. W., eds., The lower Paleozoic of West Texas and southern New Mexico—modern exploration concepts: Permian Basin Section: Society of Economic Paleontologists and Mineralogists, Publication No. 89-31, p. 105–110.
- Kerans, Charles, 1988, Karst-controlled reservoir heterogeneity in Ellenburger Group carbonates of West Texas: reply: American Association of Petroleum Geologists Bulletin, v. 72, no. 10, p. 1160–1183.
- Kupecz, J. A., Kerans, Charles, and Land, L. S., 1988, Deep-burial dolomitization in the Ordovician Ellenburger Group carbonates, West Texas and southeastern New Mexico—discussion: Journal of Sedimentary Petrology, v. 58, no. 5, p. 908–910.
- Kerans, Charles, 1983, Timing of emplacement of the Muskox intrusion: constraints from Coppermine Homocline cover strata: Canadian Journal of Earth Science, v. 20, p. 673–683.
- Kerans, Charles, Ross, G. M., Donaldson, J. A., and Geldsetzer, H. J., 1981, Tectonism and depositional history of the Helikian Hornby Bay and Dismal Lakes Groups, District of Mackenzie, *in* Geological Survey, Canada, Paper 81-10, p. 157–182.
- Horodyski, R. J., Donaldson, J. A., and Kerans, Charles, 1980, A new shale-facies microbiota from the Middle Proterozoic Dismal Lakes Group, District of Mackenzie, Northwest Territories: Canadian Journal of Earth Science, v. 17, p. 1166–1173.

Internet/Web Sites/Modules

- Loucks, R. G., Kerans, Charles, and Janson, Xavier, 2004, Platform-interior carbonate depositional environments: American Association of Petroleum Geologists Interactive Online Learning, Module 17, Product Code #928.
- Loucks, R. G., Kerans, Charles, and Janson, Xavier, 2004, Platform-margin, slope, and basinal carbonate depositional environments: American Association of Petroleum Geologists Interactive Online Learning, Module 18, Product Code #929.
- Loucks, R. G., Kerans, Charles, and Janson, Xavier, 2004, Introduction to carbonate environments, facies, and facies tracts: American Association of Petroleum Geologists Interactive Online Learning, Module 16, Product Code #927.
- Kerans, Charles, and Tinker, S. W., 2004, AGIWEB Module—Carbonate sequence stratigraphy and field examples: fundamentals of carbonate sequence stratigraphy: The University of Texas at Austin, Bureau of Economic Geology, http://www.beg.utexas.eu/agitest/_IOL-CM05/cm-ovw-01.htm.
- Kerans, Charles, Fitchen, W. M., Zahm, L., and Kempter, K., 1996, High-frequency sequence framework of a Cretaceous (Albian) carbonate ramp: The University of Texas at Austin, Bureau of Economic Geology, hypertext publication at http://www.utexas.edu/research/beg/rcrl/paper.

Abstracts

- Bellian, J. A., Kerans, Charles, Beck, R. A., Price, Yolanda, and Nedunuri, Kumar, 2006, Calcitedolomite delineation using airborne hyperspectral data for Ordovician paleokarst mapping (abs.): American Association of Petroleum Geologists Annual Convention, v. 15, p. p.
- Dutton, S. P., Kim, E. M., Ruppel, S. C., Kerans, Charles, Broadhead, R. F., Raatz, W. D., and Breton, C. L., 2006, Oil-play analysis of the Permian Basin: a tool for increasing recovery from a mature oil-producing province (abs.): American Association of Petroleum Geologists Annual Convention, v. 15, p. 28.

- Loucks, R. G., Kerans, Charles, Janson, Xavier, and Marhx, Alfredo, 2006, Origin and organization of mass-transported carbonate debris in the Lower Cretaceous (Albian) Tamabra Formation, Poza Rica field area, Mexico (abs.): American Association of Petroleum Geologists Annual Convention, v. 15, p. 66.
- Phelps, R. M., and Kerans, Charles, 2006, Outer ramp carbonate mudstone channelization and levee development, Last Chance Canyon, New Mexico (abs.): American Association of Petroleum Geologists Annual Convention, v. 15, p. 85.
- Tomasso, Mark, Bonnaffe, Florence, Pyles, D. R., Janson, Xavier, Bouroullec, Renaud, Jennette, David, Bellian, J. A., and Kerans, Charles, 2006, Application of seismic forward modeling of detailed outcrop data in improving sub-surface interpretation (abs.): American Association of Petroleum Geologists Annual Convention, v. 15, p. 107.
- Bellian, J. A., Kerans, C., Beck, R. A., and Lucia, F. J., 2005, Integration of hyperspectral data with airborne and ground-based lidar for paleocave mapping in the Franklin Mountains of El Paso, Texas (abs.): EOS Transactions of the American Geophysical Union, v. 86, no. 52, Fall Meeting Supplement, Abstract NumberG33D-05 INVITED.
- Bellian, J. A., Kerans, Charles, Beck, R. A., Lucia, F. J., and Loucks, R. G., 2005, Ordovician karst mapping with hyperspectral and lidar data (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 14, p. A22.
- Kerans, Charles, Bellian, Jerry, Janson, Xavier, Wang, Fred, Lucia, F. J., and Playton, Ted, 2005, Three-dimensional modeling of complex carbonate reservoir analog outcrops using lidar-based templates (abs.), *in* Lufholm, Peter, and Cox, Denise, eds., Unconventional reservoirs technology and strategies: alternative perspectives for the Permian Basin: West Texas Geological Society Fall Symposium, October 26–28, Publication #05-115, p. 215–217.
- Janson, Xavier, Kerans, Charles, Bellian, J. A., Phelps, Ryan, Frost, Ned, and Playton, Ted, 2005, Interaction of tectonism and eustasy in icehouse carbonate buildups and shelf strata, Pennsylvanian Holder Formation, New Mexico (abs.): American Association of Petroleum Geologists Annual Convention abstracts volume, v. 14, p. A68.
- Zeng, Hongliu, Wang, Fred, Janson, Xavier, and Kerans, Charles, 2005, Seismic sensitivity of vuggy porosity: example from Lawyer Canyon outcrop, New Mexico (abs.): American Association of Petroleum Geologists Annual Convention abstracts volume, v. 14, p. A140.
- Loucks, R. G., and Kerans, Charles, 2005, Lower Cretaceous (Albian) Glen Rose "patch reef" development in the Chittim Field, Maverick County, South Texas (abs.), *in* Filkorn, H. F., Johnson, C. C., Molineux, A., and Scott, R. W., eds., Seventh International Congress on Rudists: abstracts and post-congress field guide, p. 43.
- Zeng, Hongliu, and Kerans, Charles, 2004, High-frequency sequence- and wireline log-guided progressive inversion (ext. abs.), *in* SEG International Exposition and 74th Annual Meeting, Denver [4 p.].
- Bellian, J. A., Calkins, Craig, Davis, M. H., Frost, E., Fullmer, Shawn, Garcia-Fresca, B., Kerans, Charles, Kimball, J., and Loucks, R. G., 2004, Facies description and high-frequency cyclicity of the upper Glen Rose and Edwards Formations, Lower Cretaceous of Austin, Texas (abs): Gulf Coast Association of Geological Societies Transactions, v. 54, p. 195.
- Bellian, J. A., Kerans, Charles, Playton, Ted, Jennings, James, and Dunn, Paul, 2004, 3-D Cretaceous rudist reef reservoir model: integration of GPR, RTK GPS, and lidar (abs.): American Association of Petroleum Geologists Annual Convention Abstracts Volume, v. 13, p. A12.
- Janson, Xavier, Kerans, Charles, Bellian, J. A., Playton, T. E., and Fitchen, W. M., 2004, Outcropbased 3-D synthetic seismic of Early Permian deep water carbonate deposits, Victorio Canyon, West Texas (abs.): American Association of Petroleum Geologists Annual Convention Abstracts Volume, v. 13, p. A70.
- Loucks, R. G., Kerans, Charles, Janson, Xavier, Marhx, Alfredo, and Reyes, Carlos, 2004, Depositional facies and reservoir quality of the deep-water, Lower Cretaceous Tamabra carbonate slope reservoir in the Poza Rica field, Mexico (abs.): American Association of Petroleum Geologists Annual Convention Abstracts Volume, v. 13, p. A87.

- Zeng, Hongliu, Ruppel, S. C., and Kerans, Charles, 2004, Geologic model-guided, progressive inversion: key for high-resolution reservoir model from seismic (ext. abs.), *in* Feazel, Chip, Byrnes, Alan, Honefenger, Jim, Leibrecht, Bob, Loucks, Bob, McCants, Steve, and Saller, Art, Carbonate reservoir characterization and simulation: from facies to flow units: American Association of Petroleum Geologists Hedberg Research Conference, El Paso, March 15–18, unpaginated [2 p.]
- Bellian, J. A., Kerans, Charles, Janson, Xavier, and Playton, Ted, 2004, Digital outcrop models (ext. abs.), *in* Feazel, Chip, Byrnes, Alan, Honefenger, Jim, Leibrecht, Bob, Loucks, Bob, McCants, Steve, and Saller, Art, Carbonate reservoir characterization and simulation: from facies to flow units: American Association of Petroleum Geologists Hedberg Research Conference, El Paso, March 15–18, unpaginated [2 p.]
- Kerans, Charles, 2004, Progress and potential in building and populating 3D static models of carbonate reservoirs (ext. abs.), *in* Feazel, Chip, Byrnes, Alan, Honefenger, Jim, Leibrecht, Bob, Loucks, Bob, McCants, Steve, and Saller, Art, Carbonate reservoir characterization and simulation: from facies to flow units: American Association of Petroleum Geologists Hedberg Research Conference, El Paso, March 15–18, unpaginated [2 p.]
- Janson, Xavier, Gale, J. F., Jennings, J. W., Kerans, Charles, Loucks, R. G., Lucia, F. J., Ruppel, Stephen, and Wang, F. P., 2004, Importance of core in understanding carbonate reservoirs (abs.), *in* Feazel, Chip, Byrnes, Alan, Honefenger, Jim, Leibrecht, Bob, Loucks, Bob, McCants, Steve, and Saller, Art, Carbonate reservoir characterization and simulation: from facies to flow units: American Association of Petroleum Geologists Hedberg Research Conference, El Paso, March 15–18, unpaginated [1 p.]
- Kerans, Charles, 2004, Characterizing chaos in a giant oil field—reservoir architecture of the Horseshoe Atoll Trend, Late Carboniferous (peak icehouse) of the Permian Basin (abs.), *in* Feazel, Chip, Byrnes, Alan, Honefenger, Jim, Leibrecht, Bob, Loucks, Bob, McCants, Steve, and Saller, Art, Carbonate reservoir characterization and simulation: from facies to flow units: American Association of Petroleum Geologists Hedberg Research Conference, El Paso, March 15–18, unpaginated [1 p.]
- Lucia, F. J., and Kerans, Charles, 2004, Permeability estimation using porosity logs and rock fabric stratigraphy: an example from the Sacroc (Pennsylvanian) field, Scurry County, Texas (ext. abs.), in (abs.), *in* Trentham, R. C. (ed.), Banking on the Permian Basin: plays, field studies, and techniques: West Texas Geological Society Fall Symposium: West Texas Geological Society, Publication #04-112, 271–274.
- Dutton, S. P., Kim, E. M., Breton, C. L., Broadhead, R. F., Raatz, W. D., Ruppel, S. C., and Kerans, Charles, 2004, Digital portfolio of oil plays in the Permian Basin, *in* (abs.), in Trentham, R. C. (ed.), Banking on the Permian Basin: plays, field studies, and techniques: West Texas Geological Society Fall Symposium: West Texas Geological Society, Publication #04-112, p. 7.
- Janson, Xavier, Loucks, R. G., Kerans, Charles, Sakurai, Shinichi, Wang, F. P., Marhx, Alfredo, and Reyes, Carlos, 2004, Stratigraphic and reservoir architecture of the giant Poza Rica field, Cretaceous, Mexico, using seismic facies based on 3D seismic attributes (abs.): American Association of Petroleum Geologists Annual Convention Abstracts Volume, v. 13.
- Bellian, J. A., Kerans, Charles, Jennings, J. W., Jr., Janson, Xavier, and Playton, T. E., 2004, Carbonate digital outcrop modeling (abs.): American Association of Petroleum Geologists Annual Convention Abstracts Volume, v. 13.
- Janson, Xavier, Kerans, Charles, Loucks, R. G., Sakurai, Shinichi, Wang, F. P., Marhx, Alfredo, and Reyes, Carlos, 2004, Stratigraphic patterns and controls on reservoir quality of the giant Poza Rica field, Albian Cretaceous, Mexico (abs.): American Association of Petroleum Geologists Annual Convention Abstracts Volume, v. 13, p. A75.
- Janson, Xavier, Loucks, R. G., Kerans, Charles, Sakurai, Shinichi, Wang, F. P., Marhx, Alfredo, and Reyes, Carlos, 2004, Karstification of the Lower Cretaceous Tuxpan detached platform, Golden Lane, Mexico (abs.): American Association of Petroleum Geologists Annual Convention Abstracts Volume, v. 13, p. A71.

- Zeng, Hongliu, Kerans, Charles, and Ruppel, S. C., 2004, Integrating detailed stratigraphic architecture with 3-D seismic for high-resolution reservoir modeling (abs.): American Association of Petroleum Geologists Annual Convention Abstracts Volume, v. 13, p. A153–154.
- Loucks, R. G., and Kerans, Charles, 2003, Description of a Lower Cretaceous Glen Rose "patch reef" in the Prime Operating Company #1-84 La Paloma well from the Chittim West field, Maverick County, Texas (ext. abs.), *in* Structure and stratigraphy of South Texas and northeast Mexico: applications to exploration: Gulf Coast Section SEPM Foundation and South Texas Geological Society, p. 255–259.
- Kerans, Charles, and Loucks, R. G., 2003, Evolution of Late Aptian/Albian carbonate platforms of the northwest Gulf of Mexico (ext. abs.), *in* Structure and stratigraphy of South Texas and northeast Mexico: applications to exploration: Gulf Coast Section SEPM Foundation and South Texas Geological Society, p. 79–83.
- Bellian, J. A., Kerans, Charles, and Playton, Ted, 2003, Textural mapping with lidar and real-time kinematic GPS on the flow-unit scale: an example from the Pipe Creek early Albian rudist buildup, Central Texas (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 12, p. A12.
- Kerans, Charles, Bellian, Jerome, and Playton, Ted, 2003, 3-D modeling of deepwater carbonate outcrops using laser technology (lidar) (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 12, p. A91.
- Zeng, Hongliu, Courme, Bruno, and Kerans, Charles, 2003, Realistic reservoir model from seismic data—lessons from seismic modeling and inversion of prograding carbonate-ramp sequences (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 12, p. A188.
- Kerans, Charlie, Bellian, Jerry, and Playton, Ted, 2003, 3-D mapping and visualization of carbonate slope and basin floor reservoir strata: bringing the outcrop to the desktop (abs.): American Association of Petroleum Geologists International Conference Official Program, p. A49.
- Bellian, J. A., Jennette, David, Kerans, Charles, Gibeaut, J. C., Andrews, J. R., Ysseldyk, B., and Larue, D., 2002, 3-Dimensional digital outcrop data collection and analysis using eye-safe laser (LIDAR) technology (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 11, p. A16.
- Kerans, Charles, 2002, Mixed siliciclastic-carbonate systems—revisiting the reciprocal model (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 11, p. A92.
- Lucia, F. J., Jennings, J. W., Jr., Kerans, Charles, and Ruppel, S. C., 2002, Locating new oil in old carbonate reservoirs (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 11, p. A107–A108.
- Tinker, S. W., and Kerans, Charles, 2002, Depositional topography: key element of stratigraphic interpretation and panacea for log correlation; part 1: concepts and transitional icehousegreenhouse systems (abs.): Gulf Coast Section SEPM Foundation, 22nd Annual Bob F. Perkins Research Conference, Houston, Texas, December, p. 17.
- Kerans, Charles, and Tinker, S. W., 2002, Depositional topography: key element of stratigraphic interpretation and panacea for log correlation part 2: concepts and transitional icehousegreenhouse systems (abs.): Gulf Coast Section SEPM Foundation, 22nd Annual Bob F. Perkins Research Conference, Houston, Texas, December, p. 18.
- Kerans, Charles, 2002, Sequence architecture of Middle Eastern cretaceous reservoirs—view from the canoe (abs.): International American Association of Petroleum Geologists Distinguished Lecture Series.
- Kerans, Charles, 2001, 50 years hence—evolving technologies and opportunities in carbonate systems (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 10, p. A104.
- Sonnenfeld, M. D., Zahm, L., Ford, G. L., Canter, K. L., Buckner, S. J., Foulk, L. S., Kerans, Charles, Pluim, S. L., Simon, Michele, and Tinker, S. W., 2001, Paleostructural control on facies distribution and reservoir quality: Seminole San Andres unit (Permian, Guadalupian), West Texas

(abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 10, p. A189–A190.

- Kerans, Charles, and Lucia, F. J., 2001, Stratigraphic and diagenetic controls on reservoir architecture of a non-reefal icehouse isolated platform—Sacroc Unit, Horseshoe Atoll, Texas (abs): Southwest Section, AAPG Annual Meeting, Dallas, March, unpaginated.
- Kerans, Charles, 2001, Reservoir architecture at SACROC and the Canyon-Cisco Transition (abs.), *in* West Texas Geological Society Annual Fall Symposium, Midland, TX, October, unpaginated.
- Zeng, Hongliu, Kerans, Charles, and Lucia, F. J., 2000, Amplitude versus frequency—applications to seismic stratigraphy and reservoir characterization, part II: real 3-D data in Abo reservoir, Kingdom field, West Texas (exp. abs.), *in* 2000 technical program expanded abstracts: Society of Exploration Geophysicists, International Exposition and Seventieth Annual Meeting, Calgary, August 6–11: Society of Exploration Geophysicists, CD-ROM.
- Zahm, L., and Kerans, Charles, 2000, Stratigraphic framework and facies partitioning of a Lower Cretaceous carbonate ramp, Pecos River Canyon, Texas (abs.), *in* RMS-SEPM Luncheon Program, May 23.
- Kerans, Charles, 2000, Abo paleokarst heterogeneity styles, impacts on reservoir production characteristics (abs.), *in* Southwest Section, American Association of Petroleum Geologists, Geo-2000: into the future: West Texas Geological Society, unpaginated.
- Kerans, Charles, Kempter, K., and Rush, Jason, 2000, Predictive model for paleokarst heterogeneity styles at high-frequency/composite sequence boundaries (abs.): American Association of Petroleum Geologists, Annual Convention Official Program, p. A77.
- Tinker, S. W., Zahm, L., and Kerans, Charles, 2000, Structural controls on shelf margin evolution and reservoir distribution in Pennsylvanian Icehouse conditions: South Dagger Draw Field, New Mexico and Big Hatchet Mountains, New Mexico (abs.): American Association of Petroleum Geologists Annual Convention Official Program, p. A148.
- Zeng, Hongliu, and Kerans, Charles, 2000, Amplitude versus frequency—applications to seismic stratigraphy and reservoir characterization, part I: model (exp. abs.), *in* 2000 technical program expanded abstracts: SEG International Exposition and Seventieth Annual Meeting, Calgary, August 6–11: Society of Exploration Geophysicists, CD-ROM.
- Kerans, Charles, and Zahm, L., 1998, Facies partitioning at the high-frequency sequence scale in carbonate ramp systems (abs.): American Association of Petroleum Geologists Annual Meeting Official Program, p. 55.
- Kerans, Charles, 1998, Sedimentologic and sequence stratigraphic framework of the Shu'aiba reservoir, Idd el Shargi North Dome, Qatar (abs.), *in* Geo98: Bahrain, GeoArabia, v. 3, p. 109.
- Kerans, Charles, Sonnenfeld, M. D., and Lucia, F. J., 1997, Stratigraphic hierarchy as a key to a genetic classification of paleokarst heterogeneity styles (abs.): American Association of Petroleum Geologists, International Meeting, Vienna.
- Kerans, Charles, 1997, Stratigraphic architecture of a greenhouse carbonate ramp, Cretaceous (Albian–Cenomanian) of Pecos River Canyon, Texas (abs.): American Association of Petroleum Geologists Annual Meeting Official Program Abstracts, v. 6, p. A59–A60.
- Kerans, Charles, and Wright, B., 1997, Cretaceous carbonate ramp sequences of the Pecos River Canyon: world-class outcrops yield global perspective (abs.): West Texas Geological Society Bulletin, v. 37, no. 1, p. 13.
- Hammes, Ursula, Kerans, Charles, and Lucia, F. J., 1997, Development of a multiphase cave system: Ellenburger Formation, Lower Ordovician, West Texas (abs.): American Association of Petroleum Geologists Annual Convention Official Program.
- Ye, Qiucheng, Kerans, Charles, Fitchen, W. M., Gardner, M. H., Sonnenfeld, M. D., and Bowman, R. S., 1996, Forward stratigraphic modeling of the Permian of the Delaware Basin (abs.): American Association of Petroleum Geologists Annual Convention Official Program, San Diego, v. 5, p. A156.
- Levey, R. A., Tyler, Noel, Dutton, S. P., Kerans, Charles, and Lucia, F. J., 1995, Merging basic science and applied reservoir characterization research: an effective approach for assisting

industry in field optimization for incremental recovery of oil and gas (abs.): American Association of Petroleum Geologists Bulletin, v. 79, no. 8, p. 1230–1231.

- Kerans, Charles, Lucia, F. J., and Wang, F. P., 1995, The role of outcrop data in performance prediction of non-fractured carbonate fields (abs.): American Association of Petroleum Geologists Bulletin, v. 79, no. 8, p. 1226.
- Levey, R. A., Tyler, Noel, Dutton, S. P., Kerans, Charles, and Lucia, F. J., 1995, Merging basic science and applied reservoir characterization research: an effective approach for assisting industry in field optimization for incremental recovery of oil and gas (abs.), *in* Bienvenue a Nice: the 1995 AAPG International Conference and Exhibition: American Association of Petroleum Geologists, p. 40A–41A.
- Kerans, Charles, 1995, Cretaceous tide-dominated carbonate ramp: comparison of reservoir heterogeneity in tide- versus wave-dominated carbonate ramp systems (abs.): American Association of Petroleum Geologists Bulletin, v. 79, no. 8, p. 1226.
- Kerans, Charles, 1995, Carbonate stratigraphic research: evolution and future directions (abs.), *in* Pausé, P. H., and Candelaria, M. P., eds., Carbonate facies and sequence stratigraphy: practical applications of carbonate models: a joint Permian Basin Section–SEPM/Permian Basin Graduate Center Symposium in honor of Dr. James Lee Wilson: SEPM (Society for Sedimentary Geology)– Permian Basin Section, Publication 95-36, p. 201–202.
- Kerans, Charles, 1995, Role of high-frequency cycles in analysis of ancient facies: an example from shelf-crest teepee-pisolite facies of the Guadalupian section, Guadalupe Mountains and subsurface of the Central Basin Platform, West Texas (abs.), *in* AAPG 1995 Annual Convention Official Program: American Association of Petroleum Geologists, p. 49A.
- Lucia, F. J., Kerans, Charles, Senger, R. K., Wang, F. P., and Mishra, Anil, 1994, Characterization of reservoir heterogeneity in carbonate ramp reservoirs for simulation studies (abs.): American Association of Petroleum Geologists Annual Convention Abstracts, v. 3, p. 202.
- Lucia, F. J., Kerans, Charles, and Senger, R. K., 1992, Depositional cyclicity and scaling petrophysical parameters for characterization of fluid flow in carbonate platform reservoirs: San Andres outcrop, Algerita Escarpment, New Mexico (abs.): American Association of Petroleum Geologists Bulletin, v. 76, no. 4, p. 578–579.
- Lucia, F. J., Kerans, Charles, and Senger, R. K., 1992, Depositional cyclicity and scaling petrophysical parameters for characterization of fluid flow in carbonate platform reservoirs: San Andres outcrop, Algerita Escarpment, New Mexico (abs.), *in* Oltz, D. F., Tyler, Noel, and Watney, W. L., conveners, Unlocking the reservoir: advances in reservoir characterization for improved oil recovery: Illinois Geological Society, 1992 Symposium, p. 33.
- Kerans, Charles, Fitchen, W. M., Gardner, M. H., Sonnenfeld, M. D., Tinker, S. W., and Wardlaw, B. R., 1992, Styles of sequence development within uppermost Leonardian through Guadalupian strata of the Guadalupe Mountains, Texas and New Mexico (exp. abs.), *in* Mruk, D. H., and Curran, B. C., eds., Permian Basin exploration and production strategies: applications of sequence stratigraphic and reservoir characterization concepts: West Texas Geological Society, Publication, 92-91, p. 1–6.
- Kerans, Charles, and Harris, P. M., 1992, Relative sea level record of Yates and Tansill Formation shelf facies, Permian reef geology trail: implications for platform development (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 1, p. 65.
- Kerans, Charles, Fitchen, W. M., Gardner, M. H., Sonnenfeld, M. D., Tinker, S. W., and Wardlaw, B. R., 1992, Styles of sequence development within latest Leonardian through Guadalupian strata of the Guadalupe Mountains (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 1, p. 65.
- Fitchen, W. M., Gardner, M. H., Kerans, Charles, Little, L., Sonnenfeld, M. D., Tinker, S. W., and Wardlaw, B. R., 1992, Evolution of platform and basin architecture in mixed carbonate-siliciclastic sequences: latest Leonardian through Guadalupian, Delaware Basin (abs.): American Association of Petroleum Geologists Annual Convention Official Program, v. 1, p. 41.

- Fogg, G. E., Senger, R. K., Lucia, F. J., Kerans, Charles, and Ferris, Malcolm, 1991, Permeability of geologic facies in a carbonate outcrop: geostatistical characterization and implications for fluid flow (abs.): Geological Society of America Abstracts with Programs, v. 73, no. 5, p. A266–A267.
- Kerans, Charles, Lucia, F. J., Bebout, D. G., Major, R. P., and Ruppel, S. C., 1991, Role of parasequence-scale sequence stratigraphic analysis in integrated reservoir characterization and modeling of shallow-water carbonate strata (abs.): American Association of Petroleum Geologists Bulletin, v. 75, no. 8, p. 608.
- Lucia, F. J., Bebout, D. G., and Kerans, Charles, 1991, The Archie approach to characterizing carbonate reservoirs (abs.), *in* Sneider, Robert, Massell, Wulf, Mathis, Rob, Loren, Dennis, and Wichmann, Paul, conveners, The integration of geology, geophysics, petrophysics and petroleum engineering in reservoir delineation, description and management: Proceedings of the First Archie Conference: American Association of Petroleum Geologists, Society of Exploration Geophysicists, Society of Petroleum Engineers, and Society of Professional Well Log Analysts, p. 79.
- Lucia, F. J., Senger, R. K., Fogg, G. E., Kerans, Charles, and Kasap, Ekrem, 1991, Scale of heterogeneity and fluid flow response in carbonate ramp reservoirs: San Andres outcrop, Algerita Escarpment, New Mexico (abs.): Society of Petroleum Engineers, Paper No. SPE 22744, p. 839– 840.
- Senger, R. K., Lucia, F. J., Kerans, Charles, and Fogg, G. E., 1991, Dominant control on reservoirflow behavior in carbonate reservoirs as determined from outcrop studies, *in* Linville, Bill, Burchfield, T. E., and Wesson, T. C., eds., Reservoir characterization III: Proceedings, Third International Reservoir Characterization Technical Conference: IIT Research Institute, National Institute for Petroleum and Energy Research, and U.S. Department of Energy, v. 1, p. 109–150.
- Bebout, D. G., Major, R. P., Tyler, Noel, Harris, P. M., and Kerans, Charles, 1991, Platform-edge, shallow-marine, ooid grainstone shoals, Joulters Cays, Bahamas: a modern analog of carbonate hydrocarbon reservoirs: coastal depositional systems of the Gulf of Mexico, Quaternary framework and environmental issues (ext. abs.), *in* Proceedings, 12th Annual Research Conference, program and extended abstracts with illustrations: Society of Economic Paleontologists and Mineralogists Foundation, Gulf Coast Section, p. 26–29.
- Harris, P. M., Bebout, D. G., and Kerans, Charles, 1991, The Holocene sequence—implications for correlating parasequences and reservoir layers (abs.): American Association of Petroleum Geologists Bulletin, v. 75, no. 3, p. 589.
- Hovorka, S. D., and Kerans, Charles, 1991, Moldic porosity beneath bar crests, Permian San Andres Formation, Algerita Escarpment, New Mexico (abs.): American Association of Petroleum Geologists Bulletin, v. 75, no. 3, p. 598.
- Senger, R. K., Lucia, F. J., Kerans, Charles, and Fogg, G. E., 1991, Geostatistical/petrophysical permeability characterization from outcrop studies for evaluating multiphase flow behavior (abs.): Geological Society of America Abstracts with Programs, v. 73, no. 5, p. A323.
- Kerans, Charles, Nance, H. S., and Bebout, D. G., 1990, Outcrop analogs for modeling heterogeneous restricted platform reservoirs: Grayburg Formation (Guadalupian) of the Guadalupe Mountains and subsurface Permian Basin (abs.): American Association of Petroleum Geologists Bulletin, v. 74, no. 5, p. 693.
- Bebout, D. G., Harris, P. M., Holtz, M. H., Kerans, Charles, Major, R. P., Ratcliff, D. C., Tyler, Noel, and Vander Stoep, G. W., 1990, Heterogeneity in grainstone reservoirs—investigation of a modern analog, Joulters Cays, Bahamas (abs.): American Association of Petroleum Geologists Bulletin, v. 74, no. 5, p. 607.
- Bebout, D. G., Major, R. P., Harris, P. M., Tyler, Noel, and Kerans, Charles, 1990, Internal textural and diagenetic variations within a modern ooid grain bar—Joulters Cays, Bahamas (abs.): Geological Society of America, Abstracts with Programs, v. 22, no. 7, p. A132.
- Tyler, Noel, Bebout, D. G., Kerans, Charles, Major, R. P., and Ruppel, S. C., 1990, Potential for additional recovery in restricted platform carbonate reservoirs, Permian Basin, Texas (abs.): American Association of Petroleum Geologists Bulletin, v. 74, no. 5, p. 782.
- Kerans, Charles, Nance, H. S., and Bebout, D. G., 1990, Outcrop analogs for modeling heterogeneous restricted platform reservoirs: Grayburg Formation (Guadalupian) of the

Guadalupe Mountains and subsurface Permian Basin (abs.): American Association of Petroleum Geologists Bulletin, v. 74, no. 5, p. 693.

- Kerans, Charles, Holtz, M. H., and Tyler, Noel, 1989, Contrasting styles of reservoir heterogeneity in Ellenburger Group carbonates, West Texas (abs.), *in* Cunningham, B. K., and Cromwell, D. W., eds., The lower Paleozoic of West Texas and southern New Mexico—modern exploration concepts: Permian Basin Section, Society of Economic Paleontologists and Mineralogists, Publication No. 89-31, p. 131.
- Kerans, Charles, Vander Stoep, G. W., Lucia, F. J., and Parsley, M. P., 1988, Geological and engineering characterization of a fracture-modified grainstone reservoir: Taylor-Link West San Andres, Pecos County, Texas (abs.): American Association of Petroleum Geologists Bulletin, v. 72, no. 2, p. 205–206.
- Kerans, Charles, 1988, Origin of reservoir compartmentalization in lower Ordovician karstic dolostones, Ellenburger Group, West Texas (abs.): American Association of Petroleum Geologists Bulletin, v. 72, no. 2, p. 205.
- Playford, P. E., Hurley, N. F., Kerans, Charles, and Middleton, M. F., 1987, Reefal platform development, Devonian of the Canning Basin, Western Australia (abs.): American Association of Petroleum Geologists Bulletin, v. 71, no. 5, p. 502.
- Kupecz, J. A., and Kerans, Charles, 1987, Regionally extensive late dolomitization within the Lower Ordovician Ellenburger Group, West Texas (abs.), *in* Society of Economic Paleontologists and Mineralogists Annual Midyear Meeting, abstracts volume, p. 45.
- Kerans, Charles, and Donaldson, J. A., 1986, Morphologic diversity of subtidal stromatolite buildups: Proterozoic Dismal Lakes Group, NWT, Canada (abs.), *in* SEPM Annual Midyear Meeting Abstracts: Society of Economic Paleontologists and Mineralogists, v. 3, p. 60.
- Kerans, Charles, and Parsley, M. P., 1986, Depositional facies and porosity evolution in a karstmodified San Andres reservoir—Taylor Link west San Andres, Pecos County, Texas (abs.), *in* Bebout, D. G., and Harris, P. M., eds., Hydrocarbon reservoir studies, San Andres/Grayburg Formations, Permian Basin: Proceedings, Research Conference, Midland, Texas: PBS-SEPM, Publication No. 86-26, p. 133–134.
- Kerans, Charles, 1985, Diagenetic history of Devonian reef complexes, Canning basin, Western Australia (abs.), *in* SEPM Annual Midyear Meeting Abstracts: Society of Economic Paleontologists and Mineralogists, v. 2, p. 48.
- Kerans, Charles, and Playford, P. E., 1984, Scheck breccias from Devonian reef complexes of the Canning basin, Western Australia (abs.): American Association of Petroleum Geologists Bulletin, v. 68, p. 495.
- Playford, P. E., Kerans, Charles, and Hurley, N. F., 1984, Platform-margin and marginal-slope relationships and sedimentation in Devonian reef complexes of the Canning basin, Western Australia (abs.): American Association of Petroleum Geologists Bulletin, v. 68, p. 516–517.
- Playford, P. E., Kerans, Charles, and Hurley, N. F., 1984, Neptunian dikes and sills in Devonian reef complexes of the Canning basin, Western Australia (abs.): American Association of Petroleum Geologists Bulletin, v. 68, p. 517.
- Donaldson, J. A., Campbell, F. H. A., and Kerans, Charles, 1982, Interbasinal correlation of a Middle Proterozoic stromatolite biostrome, Coppermine and Bathurst Inlet areas, northwestern Canadian Shield (abs.), *in* Interactions of Precambrian lithosphere, biosphere and atmosphere, International Geological Congress, Projects 157 and 160, Mexico City, p. 12.
- Kerans, Charles, 1981, Precambrian carbonate shelf profile, Dismal Lakes Group (1.2 Ga.), NWT, Canada (abs.), *in* Geological Association, Canada, Annual Meeting: Abstracts with Program, p. 75.
- Donaldson, J. A., Kerans, Charles, Charles, Ross, G. M., and Geldsetzer, H. J., 1980, Tectonism and depositional history of the Helikian Hornby Bay and Dismal Lakes Groups, NWT (abs.), *in* Geological Association, Canada, Annual Meeting, p. 49.

Kerans, Charles, and Donaldson, J. A., 1979, Origin and occurrence of curly bedding structures in the Proterozoic Dismal Lakes Group, Northwest Territories, Canada (abs.): Geological Society of America, Abstracts with Programs, v. 11, p. 456.

Contract Reports

- Dutton, S. P., Kim, E. M., Broadhead, R. F., Breton, C. L., Raatz, W. D., Ruppel, S. C., and Kerans, Charles, 2004, Play analysis and digital portfolio of major oil reservoirs in the Permian Basin: application and transfer of advanced geological and engineering technologies for incremental production opportunities: The University of Texas at Austin, Bureau of Economic Geology, and New Mexico Bureau of Geology and Mineral Resources, New Mexico Institute of Mining and Technology, annual report prepared for U.S. Department of Energy, under contract no. DE-FC26-02NT15131, 104.
- Dutton, S. P., Kim, E. M., Broadhead, R. F., Breton, C. L., Ruppel, S. C., Raatz, William, and Kerans, Charles, 2004, Play analysis and digital portfolio of major oil reservoirs in the Permian Basin: application and transfer of advanced geological and engineering technologies for incremental production opportunities: The University of Texas at Austin, Bureau of Economic Geology, and New Mexico Institute of Mining and Technology, New Mexico Bureau of Geology and Mineral Resources, final report prepared for U.S. Department of Energy, under contract no. DE-FC26-02NT15131, 408 p.
- Kerans, Charles, Loucks, R. G., Janson, Xavier, Sakurai, Shinichi, Wang, F. P., Holtz, M. H., Guevara, E. H., and Dunlap, D. B., 2004, Poza Rica Phase II: integrated characterization of the Tamabra reservoir of Poza Rica field in a sequence stratigraphic framework: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Pemex in two volumes, Spanish and English, variously paginated.
- Kerans, Charles, Loucks, Robert, Janson, Xavier, Sakurai, Shinichi, DeAngelo, Michael, Holtz, Mark, Guevara, Edgar, and Dunlap, Dallas, 2003, Integrated reservoir characterization of the Poza Rica field within a sequence stratigraphic framework: phase 1—data, sequence framework, and petrophysics: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for PEMEX Exploracion y Produccion, variously paginated, 3 CD-ROM's.
- Dutton, S. P., Kim, E. M., Broadhead, R. F., Raatz, William, Breton, Cari, Ruppel, S. C., Kerans, Charles, and Holtz, M. H., 2003, Play analysis and digital portfolio of major oil reservoirs in the Permian Basin: application and transfer of advanced geological and engineering technologies for incremental production opportunities: The University of Texas at Austin, Bureau of Economic Geology, and New Mexico Bureau of Geology and Mineral Resources, annual report prepared for U.S. Department of Energy, under contract no. DE-FC26-02NT15131, 68 p.
- Kerans, Charles, 2002, The Shuaiba formation of North Oman—core-based high-frequency sequence model: The University of Texas at Austin, Bureau of Economic Geology, report prepared for Oxy Oman and Petroleum Development Oman, 28 p. + figs., plates, core descriptions.
- Kerans, Charles, Lucia, F. J., Jennings, J. W., Jr., Playton, T. E., Rush, Jason, Philip, Z. G., and Park, Yong-Joon, 2001, Reservoir Characterization Research Laboratory project summaries for 2001: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Amerada Hess, Anadarko, BP, ChevronTexaco, Exxon-Mobil, Great Western, Kinder Morgan, Marathon Oil, PanCanadian Petroleum, Petroleum Development Oman, Oxy, Saudi-Aramco, Shell International, StatOil, and TOTAL FINA ELF, CD-ROM.
- Kerans, Charles, Lucia, F. J., Jennings, J. W., Jr., and Bryant, Steve, 2000, Reservoir Characterization Research Laboratory project summaries for 2000: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Altura, Amerada Hess, BP Amoco, Chevron, Exxon-Mobil, Kinder Morgan, Marathon Oil, PanCanadian Petroleum, Petroleum Development Oman, Saudi-Aramco, Shell International, Texaco, and TOTAL FINA ELF, CD-ROM.
- Kerans, Charles, Lucia, F. J., Jennings, J. W., Jr., and Ruppel, S. C., 1999, Reservoir Characterization Research Laboratory for Carbonate Studies, project summaries and slide sets

for 1999: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for the RCRL Industrial Associates, CD-ROM.

- Kerans, Charles, Lucia, F. J., Jennings, J. W., Jr., and Ruppel, S. C., 1998, Reservoir Characterization Research Laboratory for Carbonate Studies, project summaries and slide sets for 1998: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for the RCRL Industrial Associates, CD-ROM.
- Jennings, J. W., Jr., Kerans, Charles, Lucia, F. J., Ruppel, S. C., Barnaby, R. J., Ward, W. B., Osleger, D. A., and Grubb, J. G., 1997, Reservoir Characterization Research Laboratory for Carbonate Studies, project summaries and slide sets for 1997, outcrop and subsurface characterization of reservoirs for improved recovery of remaining hydrocarbons: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for RCRL Industrial Associates, 42 p., 124 slides.
- Lucia, F. J., and Kerans, Charles, 1997, Shuaiba (Middle Cretaceous) reservoir, Idd el Shargi field: The University of Texas at Austin, Bureau of Economic Geology, contract report prepared for Occidental Petroleum of Qatar Ltd., 65 p.
- Major, R. P., Kerans, Charles, Barnaby, R. J., and Ruppel, S. C., 1997, University Lands advanced recovery initiative: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for the State of Texas, University Lands, 14 p.
- Ruppel, S. C., Kerans, Charles, Lucia, F. J., Barnaby, R. J., and Jennings, J. W., Jr., 1996, Reservoir Characterization Research Laboratory for Carbonate Studies, project summaries and slide sets for 1996, outcrop and subsurface characterization of reservoirs for improved recovery of remaining hydrocarbons: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for the RCRL Industrial Associates, 41 p., 102 slides.
- Ruppel, S. C., Kerans, Charles, Lucia, F. J., Barnaby, R. J., Jennings, J. W., Jr., Fitchen, W. M., Kempter, K., Zahm, L., Wang, F. P., Ward, W. B., and Bebout, D. G., 1995, Reservoir Characterization Research Laboratory for Carbonate Studies, project summaries and slide sets for 1995, outcrop and subsurface characterization of reservoirs for improved recovery of remaining hydrocarbons: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for the RCRL Industrial Associates, 54 p., 120 slides.
- Lucia, F. J., Wang, F. P., and Kerans, Charles, 1995, Rock-fabric approach to reservoir characterization: Seminole San Andres Unit, Gaines County, Texas: The University of Texas at Austin, Bureau of Economic Geology, technical report funded by Agip, Amoco, Aramco, ARCO, British Petroleum, Chevron, Conoco, ELF, Exxon, Fina, JNOC, Marathon, Meridian, Mobil, Oxy International, Oxy USA, PD Oman, Pennzoil, Phillips, Shell Canada, Shell Oil, Texaco, TOTAL, and Unocal, 42 p.
- Kerans, Charles, Lucia, F. J., Senger, R. K., Fogg, G. E., Nance, H. S., and Hovorka, S. D., 1993, Characterization of facies and permeability patterns in carbonate reservoirs based on outcrop analogs: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the Assistant Secretary for Fossil Energy, U.S. Department of Energy, under contract no. DE-AC22-89BC14470, 160 p.
- Kerans, Charles, Lucia, F. J., Senger, R. K., Fogg, G. E., Nance, H. S., and Hovorka, S. D., 1992, Characterization of facies and permeability patterns in carbonate reservoirs based on outcrop analogs: The University of Texas at Austin, Bureau of Economic Geology, report prepared for the U.S. Department of Energy, under contract no. DE-AC22-89BC14470, 160 p.
- Tyler, Noel, Barton, M. D., Bebout, D. G., Fisher, R. S., Grigsby, J. D., Guevara, E. H., Holtz, M. H., Kerans, Charles, Levey, R. A., and Nance, H. S., 1992, Characterization of oil and gas reservoir heterogeneity: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the U.S. Department of Energy, under contract no. DE-FG22-89BC-14403, 219 p.
- Kerans, Charles, Lucia, F. J., Senger, R. K., Fogg, G. E., Nance, H. S., Kasap, Ekrem, and Hovorka, S. D., 1991, Characterization of reservoir heterogeneity in carbonate-ramp systems, San Andres/Grayburg, Permian Basin: The University of Texas at Austin, Bureau of Economic Geology, Reservoir Characterization Research Laboratory, final contract report, 245 p.

- Tyler, Noel, Bebout, D. G., Garrett, C. M., Jr., Guevara, E. H., Hocott, C. R., Holtz, M. H., Hovorka, S. D., Kerans, Charles, Lucia, F. J., Major, R. P., and Ruppel, S. C., 1990, Opportunities for additional recovery in University Lands reservoirs-characterization of University Lands reservoirs: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the University of Texas System, 255 p.
- Kerans, Charles, Lucia, F. J., and Fogg, G. E., 1989, San Andres/Grayburg reservoir characterization research laboratory: progress report, year one, 1988/89: The University of Texas at Austin, Bureau of Economic Geology, contract report, 26 p.

Course Notes

- Kerans, Charles, and Tinker, S. W., 1997, Sequence stratigraphy and characterization of carbonate reservoirs: SEPM (Society for Sedimentary Geology), Short Course Notes No. 40, 165 p.
- Kerans, Charles, 1995, Use of one- and two-dimensional cycle analysis in establishing high-frequency sequence frameworks, *in* Read, J. F., Kerans, C., and Weber, L. J., organizers, Milankovitch sea level changes, cycles and reservoirs on carbonate platforms in greenhouse and ice-house worlds: SEPM (Society for Sedimentary Geology), Short Course Notes No. 35, p. 1–19.