JOHN PATRICK CASTAGNA

Residence: 706 Hawthorne Unit C, Houston, TX 77006

EDUCATION

- **1983** Ph.D., University of Texas at Austin, Exploration Geophysics
- 1981 M.A., Brooklyn College, Geochemistry
- 1976 B.S., Brooklyn College, major in Geology, minor in Chemistry

PERSONAL INFORMATION

Two children. 56 years old.

EXPERIENCE

2004-present	Professor and Sheriff Chair, University of Houston, Director, Center for Applied Geophysics (CAGE)
2000-2004	President, Fusion Geophysical
1996-2004	Professor and McCollough Chair in Geology and Geophysics; Director , Institute for Exploration and Development Geosciences, University of Oklahoma;
1995-1996	Dual appointment as Senior Principal Research Geophysicist for ARCO Exploration and Production Technology, and Visiting Research Scientist at the Geotechnology Research Institute of the Houston Advanced Research Center.
1994-1995	Principal Geophysicist, ARCO International Oil and Gas Co.
1990-1994	Principal Geophysicist, Vastar Resources (a subsidiary of ARCO)
1989-1990	Manager, Seismic Analysis Research, ARCO Oil and Gas Co.
1988-1989	Director, Geoseismic Interpretation Research, ARCO Oil and Gas Co.
1987-1988	Technical Coordinator, Rock Physics Research, ARCO Oil and Gas Co.
1986	Log Analyst , Reservoir Engineering Services, ARCO Oil and Gas Co. Responsible for formation evaluation and reservoir characterization.
1982-1985	Technical Coordinator, Sonic Logging Research, ARCO Oil and Gas Co.
1980-1981	Sr. Res. Geophysicist, Well Logging Research, ARCO Oil and Gas Co.

MISCELLANEOUS

1999 First Vice-President of the Society of Exploration Geophysicists
1998-1997 Chairman, *The Leading Edge* Editorial Board
1996-1995 SEG Distinguished Lecturer
Received Best Paper Award 2001 The Leading Edge
Technical Program Chairman 2003 SEG Meeting, Dallas,
Technical Program Chairman 2009 SEG Meeting, Houston
Received SEG Reginald Fessenden Award
Received GSH Honorary Life Membership
Received SEG 2010 Outstanding Reviewer Award

RECENT PUBLICATIONS

Puryear, C., Portniaguine, O., Cobos, C., and Castagna, J. P., 2012, Constrained least squares spectral analysis: Geophysics, November

Zhang, R., and Castagna, J. P., 2011, Thin-layer reflectivity inversion using basis pursuit decomposition, Geophysics, December

Nguyen, T., and Castagna, J. P., 2010, High resolution reflectivity inversion: Journal of Seismic Exploration, V. 19, No. 4, October

Fa, L., Castagna, J.P., Zeng, Z., Brown, R.L., and Zhao, M. 2010. Effects of anisotropy on time depth relation in transversely isotropic medium with a vertical axis of symmetry: Chinese Science Bulletin, Vol. 55, No. 21:2243-2251.

Liao, Q., Kouri, D., Nanda, D., and Castagna, J. P., 2011, Automatic first break detection by spectral decomposition using minimum uncertainty wavelets, SEG, Expanded Abstracts, 1637-1631

Zhang, R., and Castagna, J. P., 2011, Sparse layer inversion with basis pursuit decomposition, SEG, Expanded Abstracts, 2571-2585

Benabentos, M., and Castagna, J. P., 2011, Density estimate from well log data using a diagenetic rock model, SEG, Expanded Abstracts, 2094-2098

Chopra, S., and Castagna, J. P., 2013, <u>Amplitude Variation With Offset</u>, Developments in Geophysics Series, Society of Exploration Geophysicists (accepted, copy editing complete)

OLDER PUBLICATIONS

Lee, G, and Castagna, J. P., 2007, Untested carbonate buildups in the Bermejo Field, Eduador: A potential new play type in the Oriente Basin: AAPG Bulletin, 95(2), pp. 135-149

Castagna, J. P., 2007, On the use of seismic data in reservoir characterization: in D. J. O'Meara, ed., <u>Reservoir Characterization</u>, PennWell

Chopra, S., Castagna, J. P., Xu, Y., and Tonn, R., 2007, Thin bed reflectivity inversion and seismic interpretation: SEG Expanded Abstracts

- Dwan, F., Portniaguine, O., Sparkman, G., Burnett, M., and Castagna, J. P., 2007, High-Resolution Geological Visualization Using Spectral Inversion: Offshore Technology Conference OTC-18951-PP
- Chopra. S, and Castagna, J. P., 2007, Thin Bed Reflectivity Inversion and Seismic Interpretation: CSEG Expanded Abstracts, 524-527 and SEG Expanded Abstracts, n. 1, 1923-1927
- Calderon, J., and Castagna, J. P., 2007, Porosity and lithologic estimation using rock physics and multiattribute transforms in Balcon Field, Colombia: The Leading Edge, 26, 142
- Lin, F, and Castagna, J., 2008, An accurate and fast algorithm of calculating R/T coefficients; China Science Magazine (indexed by SCI).
- Puryear, C., and Castagna, J. P., 2008, Layer thickness determination and stratigraphic interpretation using spectral inversion: Theory and application: Geophysics, 73, R37
- Puryear, C., Tai, S., Castagna, J., Masters, R., and Dwan, F., 2008, Comparison of frequency attributes from CWT and MPD spectral decompositions of a complex turbidite sand model: SEG Expanded Abstracts
- Zhang, R., and Castagna, J. P., 2008, Checkshot-sonic microscale tomography: SEG Expanded Abstracts
- Rojas, M., Castagna, J. P., Krishnamurti, R., Han, D., and Tutuncu, A., 2008, Shear-thinning behavior of heavy oil samples: SEG Expanded Abstracts
- Chopra, S, and Castagna, J., 2008, Thin-bed reflectivity an aid to seismic interpretation: CSEG, Expanded Abstracts
- Chopra. S, and Castagna, J. P., 2009, Thin Bed Reflectivity Inversion: First Break
- Chopra, S., Castagna, J.P., and Xu., Y., 2009, Relative acoustic impedance application for thin-bed reflectivity inversion: SEG Expanded Abstracts
- Gassiyev, A., and Castagna, J. P., 2009, Mixing models and frame moduli bounds in complex lithologies: SEG Expanded Abstracts
- Tai, S., Puryear, C., and Castagna, J. P., 2009, Local frequency as a direct hydrocarbon indicator: SEG Expanded Abstracts
- Cuesta, J., Perez, R., Hernandez, F., Carrasquel, W., Cabrera, R., Moreno, C., and Castagna, J. P., 2009, The use of seismic attributes and spectral decomposition to support the drilling plan of the Urucoa-Bombal fields: SEG Expanded Abstracts
- Berryman. J., Ecker, C., and Castagna, J. P., 2006, Elasticity of porous media, translation of classic paper by F. Gassmann, in M. A. Pelissier, ed., <u>Classics in Elastic Wave Theory</u>, Society of Exploration Geophysicists
- Fa, L., Brown, R.L., and Castagna, J. P., 2006, Anomalous postcritical refraction behavior for certain transversely isotropic media: J. Acoust. Soc. Am. 120 (6), pp.3479-3492

Sinha, S., Routh, P. S., Anno, P. D., and Castagna, J. P., 2005, Spectral decomposition of seismic data with continuous-wavelet transform: <u>Geophysics 70, P19 - P25</u>

Chen, H., Brown, R. L., and Castagna, J. P., 2005, AVO for one- and two-fracture set models: Geophysics 70, C1- C5

- Li, J., and Castagna, J., 2004, Support Vector Machine (SVM) pattern recognition for AVO classification, Geophysical Research Letters, Vol., 31
- Saleh, A. A., and Castagna, J. P., 2004, Revisiting the Wyllie time-average equation in the case of nearspherical pores, Geophysics, v. 69, no. 1
- Lin, F., Castagna, J. P., Suarez-Rivera, R., and Sun. P., 2003, An acoustic-logging transmission-network model (continued): Addition and multiplication ALTNs: J. Acoust, Soc. Am., 113 (5), May 2003
- Mahob, P.N. and Castagna, J. P., 2003, AVO polarization and hodograms: AVO strength and polarization product: Geophysics, 68, 849-862.
- Doherty, P. D., Soreghan, G. S, and Castagna, J. P., 2002, Outcrop-based reservoir characterization: A composite phylloid-algal mound, western Orogrande basin (New Mexico), AAPG Bulletin, v. 86, pp. 779-795
- Lin, F., Castagna, J. P., Hovem, J. M., and Dong, D., 2002, An acoustic-logging transmission network model: J. Acoust. Soc. Am., v. 111, no. 5, pp. 2158 – 2165
- White, L, and Castagna, J. P., 2002, Stochastic fluid modulus inversion: Geophysics, 67, No. 12
- Castagna, J. P., 2001, Recent advances in seismic lithologic analysis, Geophysics, 66, 42
- Chen, H., Castagna, J. P., Brown, R. L., and Ramos, A. C. B., 2001, Three-parameter AVO crossplotting in anisotropic media, Geophysics 66, 1359
- Ramos, A.C.B., and Castagna, J. P., 2001, Useful approximations for converted-wave AVO, Geophysics 66, 1721
- Sarkar, D., Castagna, J. P., and Lamb, W. J., 2001, AVO and velocity analysis, Geophysics, 66, 1284
- Castagna, J. P., and Hooper, J., 2000, A Simple Model for Saturation Curve Fitting: SEG Annual Convention, Calgary
- Chen, H. and Castagna, J. P., 2000, Anisotropic effects on full and partial stacks: Geophysics, V. 65, No. 4, p. 1028
- Fa, L., Castagna, J. P., and Dong, D., 2000, Directivity and reciprocity analysis of array sonic logging transmission network: Online Symposium for Electronics Engineers, Proceedings, V. 1
- Gallice, F., Castagna, J. P., Doherty, P., Soreghan, L., Sondergeld, C., and Rai, C., 2000, Ultrasonic Velocity Measurements in Carbonate Algal Mound Samples, Orogrande Basin, New Mexico: SEG Annual Convention, Calgary
- Huffman, A., and Castagna, J. P., 2000, Rock physics and mechanics considerations for shallow water flow characterization: OTC-11974, Offshore Technology Conference, May 2, Houston
- Liu, Z., and Castagna, J., 2000, Wavelet Extraction and Seismic Modeling Using Neural Networks: SEG Annual Convention, Calgary
- Mahob, P., and Castagna, J. P., 2000, Fluid Substitution and Shear-Wave Velocity Prediction Including Dispersion Effects: A Case Study, NW Shelf, Australia: SEG Annual Convention, Calgary

- Nguyen, T., and Castagna, J., 2000, Matching Pursuit of Two-Dimensional Seismic Data and Its Filtering Application: SEG Annual Convention, Calgary
- Poth, L., and Castagna, J. P., 2000, Using AVO Inversion Techniques to Model an Amplitude Anomaly Prior to Drilling: SEG Annual Convention, Calgary
- Samake, D., Castagna, J. P., and Mahob, P., 2000, Stochastic Fluid Substitution and Seismic Modeling: SEG Annual Convention, Calgary
- Sun, Q., Castagna, J. P., and Liu, Z., 2000, AVO Inversion by Artificial Neural Networks: SEG Annual Convention, Calgary
- Sun, S., and Castagna, J. P., 2000, Attenuation Estimation From Vertical Seismic Profile Data: SEG Annual Convention, Calgary
- Batzle, M. L., Han, D. H., and Castagna, J. P., Fluids and Frequency Dependent Seismic Velocity of Rocks: 1999 Annual SEG Convention, Houston, Texas, pp. 5-8
- Castagna, J. P., 1999, Recent Advances in Exploration Geophysics, Geotimes, January (invited paper)

Castagna, J. P., 1999, Velocity Dispersion – How Significant Is It?: presented at Houston Advanced Research Center Geotechnology Research Institute Symposium (May) and at the OU Geophysical Reservoir Characterization Consortium Annual Meeting (September)

- Castagna, J. P., O'Meara, D., Ucan. S., Cranganu, C., and Batzle, M. M., 1999, Rock Physics Basis for Seismic Time-Lapse Monitoring, invited keynote presentation, 1999 SEG Development and Production Forum, Kananaskis, Canada. Selected by the organizers as one of the best papers and presented again at 1999 SEG Annual Convention Workshop review of D&P forum.
- Chen, H., Castagna, J. P., Brown, R. L., and Ramos, A. C. B., 1999, Three-Parameter AVO Crossplotting in Anisotropic Media: 1999 Annual SEG Convention, Houston, Texas, pp. 73-76
- Chen, H., and Castagna, J. P., 1999, Study of Anisotropic Effects on Full and Partial Stacks: 1999 Annual SEG Convention, Houston, Texas. Pp. 1892-1895
- Huffman, A., and Castagna, J. P., 1999, Rock Physics and Mechanics Considerations for Shallow Water Flow Characterization, 1999 Int. Forum on Shallow Water Flows, Oct., League City, TX
- Sarkar, D., Castagna, J. P., and Lamb, W. J., 1999, AVO and Velocity Analysis: 1999 Annual SEG Convention, Houston, Texas, pp. 840-842
- Lin, F., Castagna, J. P., and Hovem, J. M., 1999, Derivation and Simulation of Source Function Acoustic Logging: 1999 IEEE International Ultrasonics Symposium, Lake Tahoe, Nevada
- Liu, Z., and Castagna, J. P., 1999, The Impulse Response of BP Neural Networks and Seismic Wavelet Extraction: International Neural Network Society, IJCNN'99, July, Washington D. C.
- Liu, Z., and Castagna, J. P., 1999, Avoiding Overfitting Caused by Noise with Uniform Training Mode: International Neural Network Society, IJCNN'99, July, Washington D. C.
- Mahob, P., Castagna, J. P., Young, R, 1999, AVO Inversion of a Gulf of Mexico Bright Spot A Case Study: Geophysics, v. 64, No. 5, 1480-1491
- O'Meara, D. J., Jalfin, G., and Castagna, J. P., 1999, Feedback from 3D Geomodeling and Log-Derived Capillary Pressure Functions Leads to Improved Well Log Interpretation, In Situ Permeability Estimates, and More Accurate Volumetrics: 1999 Landmark World-Wide Forum, Houston, Texas

Castagna, J. P., Swan, H. W., and Foster, D., 1998, Framework for Interpretation of AVO gradient and intercept: Geophysics, May

Bork, J., Yin, C., Castagna, J., Karazincir, H., and Wood, L., 1997, An investigation into unusual AVO signatures in the Gulf of Mexico and Trinidad: presented at 67th Annual International Meeting, Society of Exploration Geophysicists

Castagna, J. P., 1997, Permeability determination using acoustic logs: presented at Advances in Seismic Technologies, Consortium for Emerging Gas Resources in the Greater Green River Basin, Denver, 11/11/97

Castagna, J. P., and O'Meara, D., 1997, On the feasibility of seismic waterflood monitoring: Statoil Research Symposium, 9/12/97

Castagna, J. P., and O'Meara, D., 1997, Reservoir Characterization: white paper for Energy Research Clearinghouse and Reservoir Recovery Forum, 85 pp.

Castagna, J. P. and Swan, H. W., 1997, Principles of AVO crossplotting: The Leading Edge, Reprinted in Applications of Emerging Technologies, Unconventional Methods in Exploration for Petroleum and Natural Gas V, Proceedings, Institute for the Study of Earth and Man, SMU University. Also presented at Society of Professional Well Log Analysts Multidiscipline Low Contrast Pay Symposium, 5/15/97, New Orleans, and AAPG 1997 Mid-Continent Section Meeting, Oklahoma City

Mahob, P. N., Young, R., and Castagna, J. P., 1997, The effect of Radon filtering on a Central Gulf of Mexico AVO Anomaly: presented at 67th Annual International Meeting, Society of Exploration Geophysicists

Sparkman, G., and Castagna, J. P., 1997, Time-lapse reservoir monitoring and characterization: presented at AAPG Annual Convention, 4/9/97

Castagna, J. P., 1996, Seismic reservoir monitoring economics: presented at 66th Annual International Meeting, Research Workshop, Society of Exploration Geophysicists

Castagna, J. P., Sparkman, G., and Gobran, B., 1996, Seismic time-lapse monitoring: white paper for Energy Research Clearinghouse, 85 pp.

Batzle, M. L., Han, D. H., and Castagna, J. P., 1995, Fluid effects on bright spot and AVO analysis: presented at 65th Annual SEG Meeting, 1119-1121. Also presented at SEG Summer Research Workshop, Vail, Co.

Castagna, J. P., 1995, Applied AVO analysis: use and abuse of amplitude variation with offset. Fall 1995 SEG Distinguished Lecture.

Castagna, J. P., Batzle, M. L., and Han, D. H., 1995, Issues in rock physics and implications for DHI interpretation: presented at 1st Conference of the Union of Latin American Geophysicists, 575-577, invited paper. Also published in The Leading Edge, 14, 883-885

Castagna, J. P., Swan, H. S., Foster, D. L., and Peddy, C. A., 1995, Framework for interpretation of AVO intercept and gradient: submitted to Geophysics

Castagna, J. P., 1994, Communication, integration, and the next geophysical frontier: The Leading Edge, 13, 32-36

Castagna, J. P., and Foster, D. L., 1994, Critical aspects of AVO analysis: presented at 7th Annual Venezuelan Geophysical Congress, invited session keynote address

Castagna, J. P., and Smith, S. W., 1994, Comparison of AVO indicators: a modeling study: Geophysics, 59, 1849-1855. Presented at 63rd Annual SEG Meeting, Received honorable mention for best presentation. Invited paper at 10th Annual Gulf Coast SEG Meeting

Pan, G. S., Young, C. Y., and Castagna, J. P., 1994, An integrated target-oriented prestack elastic waveform inversion: sensitivity, calibration, and application: Geophysics, 59, 1392-1404. Also presented at 63rd Annual SEG Meeting

Castagna, J. P., 1993, Petrophysical imaging using AVO: The Leading Edge, 12, 172-178, invited paper

Castagna, J. P., 1993, Amplitude-versus-offset analysis; tutorial and review: *in* J. P. Castagna and M. M. Backus, Eds., Offset-Dependent Reflectivity - Theory and Practice of AVO Analysis, Society of Exploration Geophysicists

Castagna, J. P., and Backus, M. M., Eds., 1993, Offset-Dependent Reflectivity - Theory and Practice of AVO Analysis: Society of Exploration Geophysicists

Castagna, J. P., Batzle, M. L., Gaiser, J. E., Tubman, K. M., and Burnett, M. L., 1993, Shear-wave velocity control: *in* J. P. Castagna and M. M. Backus, Eds., Offset-Dependent Reflectivity - Theory and Practice of AVO Analysis, Society of Exploration Geophysicists

Castagna, J. P., Batzle, M. L., and Kan, T. K., 1993, Rock physics; the link between rock properties and AVO response: *in* J. P. Castagna and M. M. Backus, Eds., Offset-Dependent Reflectivity - Theory and Practice of AVO Analysis, Society of Exploration Geophysicists

Hong, M. R., Castagna, J. P., and Sicking, C. J., 1993, A model-based analysis of amplitude-versus-offset variation of land seismic data: *in* J. P. Castagna and M. M. Backus, Eds., Offset-Dependent Reflectivity - Theory and Practice of AVO Analysis, Society of Exploration Geophysicists

Castagna, J. P., 1992, Petrophysical basis for AVO analysis: presented at the Joint SEG/EAEG Summer Research Workshop. How Useful is AVO Analysis?, 371-372, invited paper

Castagna, J. P., 1992, Velocity equations for AVO analysis: presented at the Joint SEG/EAEG Summer Research Workshop. How Useful is AVO Analysis?, 377-384. Selected as one of 10 best summer workshop papers and invited for presentation as a poster paper at the 62nd Annual SEG Meeting

Greenberg, M. L., and Castagna, J. P., 1992, Shear-wave velocity estimation in porous rocks; theoretical formulation, preliminary verification and applications: Geophysical Prospecting, 40, 195-209

Lamb, W. J., Zhu, X., McMechan, G. A., Greenberg, M. L., and Castagna, J. P., 1992, Elastic wave propagation in composite media: Geophysics, 57, 1155-1165

Castagna, J. P., 1991, Seismic lithology overview: presented at 61st Annual SEG Meeting, paper SL 2.1, 1051-1053, invited paper

- Pan, G. S., Young, C. Y., and Castagna, J. P., 1991, Sensitivity and resolution of an integrated target-oriented prestack elastic inversion: presented at 60th Annual SEG Meeting, paper SI 3.2, 1173-1176
- Greenberg, M. L., Lamb, W. J., and Castagna, J. P., 1990, Porosity and lithology estimation from elastic rock parameters: presented at EAEG/SEG Research Workshop, Cambridge, England, paper 6.06, 360-363
- Greenberg, M. L., Popa, M. L., Phillips, R. L., and Castagna, J. P., 1990, Estimation of shear-wave velocity logs from conventional well logs: presented at EAEG/SEG Research Workshop, Cambridge, England, paper 4.10, 283-286
- Song, Y. Y., Castagna, J. P., Black, R. A., and Knapp, R. W., 1989, Sensitivity of nearsurface shear-wave velocity determination from Rayleigh and Love waves: presented at 59th Annual SEG Meeting, paper POS 5.10, 509-512
- Castagna, J. P., 1987, Method and apparatus for measuring formation compressional and shear-wave velocity, U. S. Patent No. 4,701,891, October 20, 1987
- Castagna, J. P., Zucker, S. M., and Shoberg, T. G., 1987, Permeability indication with conventional sonic waveforms: presented at SPWLA 28th Annual Logging Symposium, paper MM
- Eastwood, R.L., and Castagna, J. P., 1987, Interpretation of V_p/V_s ratios from sonic logs in Shear-wave Exploration, S. H. Danbom and S. N. Domenico, Eds., 139-153
- Castagna, J. P., 1985, Accuracy and limitation of sonic log and VSP measurements for seismic exploration: presented at 55th Annual SEG Meeting, paper RS3, 281-283, invited paper
- Castagna, J. P., 1985, Shear-wave time-average equation for sandstones: presented at 55th Annual SEG Meeting, paper S10.2, 447-449
- Castagna, J. P., Batzle, M. L., and Eastwood, R. L., 1985, Relationships between compressional-wave and shear-wave velocities in clastic silicate rocks: Geophysics, 50, 571-581. Reprinted in Geophysics II, Tools for Seismic Interpretation, Treatise of Petroleum Geology, American Association of Petroleum Geologists. Also reprinted in A. M. Nur, and Z. Wang, editors, Seismic and Acoustic Velocities in Reservoir Rocks, Volume I, Society of Exploration Geophysicists. Also presented at 53rd Annual SEG Meeting, paper S13.1, 582-584, and invited paper at the 1st Gulf Coast SEG Meeting
- Castagna, J. P., 1984, Digital processing improves sonic log reliability: World Oil, April, 71-74, invited paper
- Goldberg, D. S., Gant, W. T., Siegfried, R. W., and Castagna, J. P., 1984, Processing and interpretation of sonic log waveforms a case study: presented at 54th Annual SEG Meeting, paper BHG 2.4, 28-29
- Goldberg, D. S., Kan, T. K., and Castagna, J. P., 1984, Attenuation measurements from sonic log waveforms: presented at SPWLA 25th Annual Logging Symposium, paper NN

Anderson, R. G., and Castagna, J. P., 1984, Analysis of sonic log compressional-wave

amplitudes using borehole compensation techniques: SPWLA 25th Annual Logging Symposium, paper K

- Castagna, J. P., 1983, Prediction of Fe-Mg site occupancies in pigeonite: Geophysical Research Letters, 10, 137-139
- Castagna, J. P., 1983, Full-waveform sonic log processing: presented at 53rd Annual SEG Meeting, Sonic Logging Workshop, invited paper

Castagna, J. P., and Gaiser, J. E., 1983, Quality sonic logs for seismic applications: presented at 53rd Annual SEG Meeting, paper BHG2, 2-5

Castagna, J. P., and Gaiser, J. E., 1983, Improved seismic ground truth from sonic logs: presented at SPWLA 24th Annual Logging Symposium, paper NN

Eastwood, R. L., and Castagna, J. P., 1983, Basis for interpretation of V_p/V_s ratios in complex lithologies: presented at SPWLA 24th Annual Logging Symposium, paper G. Reprinted in Geophysics II, Tools for Seismic Interpretation, Treatise of Petroleum Geology, American Association of Petroleum Geologists

Castagna, J. P., and Sicking C. J., 1982, Sonic log error recognition and correction by Wiener interpolation: presented at 52nd Annual SEG Meeting, paper L1.8, 325-327

Siegfried, R. W., and Castagna, J. P., 1982, Methods for the analysis of sonic log waveforms: presented at SPWLA 23rd Annual Logging Symposium

Castagna, J. P., 1981, Energetics of garnet-clinopyroxene equilibrium reactions: Master's Thesis, Brooklyn College of C.U.N.Y.

Castagna, J. P., Anderson, R. A., and Brock, D., 1981, Shear waves on sonic log waveforms: presented at 51st Annual SEG Meeting, paper S11.6, 69-70

Castagna, J. P., Anderson, R. A., and Simmons, J., 1981, Compressional-wave amplitude logging: presented at 51st Annual SEG Meeting, paper S11.5, 69

Backus, M. M., Castagna, J. P., and Gregory, A. R., 1979, Sonic log waveforms from geothermal well, Brazoria Co., Texas: presented at 49th Annual SEG Meeting

Castagna, J. P., 1979, Application of the simple mixture model to garnet and clinopyroxene solutions: EOS, Transactions, American Geophysical Union, 60, 404