

Dr. De-Hua Han

Curriculum Vitae, 2013

EDUCATION

Ph.D., Geophysics, Stanford University, Stanford, California, 1987
M.S., Geophysics, Stanford University, Stanford, California, 1985
M.S., Rock Mechanics, Graduate School of Chinese Acad. Sci., Beijing, China, 1981
B.S., Solid Physics, Hebei University, Tianjin, China, 1967

PROFESSIONAL EXPERIENCE

2003- now	Research Professor, Director of Rock Physics Laboratory at U. of Houston
1994 - 2003	Geotechnology Research Institute at HARC, Director of RPL
1987 - 1994	Unocal Science and Technology Division, Director of RPL
1981 - 1987	Stanford University: Research assistant,
1979 - 1981	Chinese Academy of Science: Research assistant in the Graduate School.
1969 - 1981	Teach physics in High schools.

RESEARCH INTERESTS: Seismic rock physics: Rock and fluid properties and integrating rock properties into seismic for reservoir exploration, evaluation, characterization, and monitoring, and quantitative seismic interpretation.

PUBLICATION

Han, D., A. Nur, Effects of Porosity and Clay Content on Wave Velocity of Sandstones, *Geophysics*, 51, 2093-2107, 1986, *Geophysics Reprint 10*, 1988.
Eberhart-Phillips, D. and D. Han: Empirical Relationships among Seismic Velocity, Effective Pressure, Porosity, and Clay Content in Sandstone, *Geophysics*, v.1, p.82, 1989..
Han, D., Weak Cementation Effect on Velocities of Sands, SEG Annual Meeting, 1994.
Castagna, J., D. Han and M. Batzle, Issues in rock physics and implications for DHI interpretation, TLE, 883, 1995
Batzle, M., R. Christiansen, and D. Han, Reservoir recovery processing and geophysics, 1998, The Leading Edge, October, p. 1444-1447.
Han, D., and M. Batzle, Velocity, Density and Modulus of Hydrocarbon Fluids: (1) Data Measurement, (2) Empirical Modeling SEG Annual Meeting, Calgary, 2000
Batzle, M., R. Hafmann, D. Han, J. Castagna, Fluids and frequency dependent seismic velocities of rocks: 2001, The Leading Edge, February, p168-171.
Batzle, M., and D. Han, Optimal hydrocarbon indicator SEG annual meeting 2001
Han, D., and M. Batzle, Fizz water and low gas saturated reservoirs, TLE, April, 2002.
Han, D., and M. Batzle, Constrain and simplified Gassmann's equation. SEG Annual meeting 2002
Han, D., and M. Batzle, Gassmann's equation and fluid saturation effects on seismic velocities. *Geophysics*, p398-405, 2004.
Batzle, M., D. Han, and R. Hofmann: Fluid mobility and frequency dependent seismic velocity – direct measurements: *Geophysics* Vol. 71, 2006
Batzle, M., D. Han, and R. Hofmann: Heavy oils: Seismic properties: TLE. 2006
Han, D., and M. Batzle, Velocity deep-water reservoir sands, TLE Vol. 25, No. 4, 2006.
Han, D., Jiajin Liu., and M. Batzle, Seismic property of heavy oil: measured data, TLE Vol. 27, 1108, 2008.
Han, D., Min Sun and M. Batzle, CO₂ Velocity Measurement and Models for temperature

up to 200 °C and pressure up-to 100 Mpa, Geophysics, Vol. 75, No.3 E123 to E129, 2010.

Zhang, Z., D. Han, & Q. Liang, Quantitative interpretation for gas hydrate accumulation in the eastern Green Canyon Area, Gulf of Mexico using seismic inversion and rock physics transform, accept by Geophysics, will appear on July, 2011.

Zhang, Z., McConnell, D, and Han, D, 2011, Rock physics based seismic trace analysis of unconsolidated sediments containing gas hydrate and free gas in Green Canyon 955, Gulf of Mexico, Marine and Petroleum Geology , 1-15, 2011.

Zhang, Z., McConnell, D., and Han, D., 2012, Rock physics based seismic trace analysis of unconsolidated sediments containing gas hydrate and free gas in Green Canyon 955, northern Gulf of Mexico, Marine and Petroleum Geology.

Zhang, Z., Han, D, and McConnell, D, 2013, Characterization of elastic properties of near-surface and sub-surface deepwater hydrate-bearing sediments, Geophysics, 78, 3, 169-179.

PI or Co-PI for following industry sponsored consortiums

1. Fluid/DHI consortium. The consortium is world leader in seismic rock physics research and supported by the oil companies worldwide. (Industry sponsored, 1995-2013).
2. Attenuation and Dispersion in Gas Saturated Rocks (Industry Sponsored, 1997-1999)
3. Calibration of seismic hydrocarbon indicators (ITF project 2003-2005)
4. Seismic evaluation of hydrocarbon saturation in Deep-water of Gulf Mexico (DOE project, 2003 to 2006)
5. Laboratory project for RIPED. PetroChina
6. Heavy oil project (DOE project. 2008 to 2010)
7. Heavy oil project with Statoil (2009-2010)