

## **SHORT CURRICULUM VITAE**

Peter A. Rona

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### **EDUCATION**

Ph.D. Yale University 1967 (Marine Geology and Geophysics; J.W. Gibbs, J.D.  
Dana and Sheffield Fellowships)

M.S. Yale University 1957 (Geology)

A.B. Brown University 1956 (Geology)

### **POSITIONS**

1994-present Professor of Marine Geology and Geophysics, Rutgers University

1969-1994 Senior Research Geophysicist, NOAA/AOML

1970-1996 Adjunct Professor, Rosenstiel School, University of Miami

1960-1969 Research Associate, Columbia University, Hudson Laboratories

1957-1959 Exploration Geologist, Standard Oil Company (Exxon)

### **EXPERIENCE**

Peter Rona's work is the investigation of ocean ridges and continental margins using geophysical and geological methods. He worked on the structure and stratigraphy of the eastern North American and northwestern African continental margins using seismic, bathymetric and magnetic methods between 1960 and 1972. Since 1972 this work has focused on ocean ridge crest processes with emphasis on the role of seafloor hydrothermal systems in thermal and chemical fluxes and in mineralization. He is working with colleagues to originate, develop, and apply innovative acoustic methods to image, reconstruct in 3-D, and quantify hydrothermal plumes and diffuse flow. He has initiated and directed multiple projects including the Trans-Atlantic Geotraverse (TAG) and has organized and directed multidisciplinary, multi-institutional, international research teams. He has served as chief or co-chief scientist on research cruises with ships and submersibles almost every year since 1960. He has published over 250 scientific papers, an atlas of the central North Atlantic, co-edited four books, served as associate editor of two leading scientific journals, and co-edited five special issues, organized and chaired numerous scientific symposia, serves as a consultant to the United Nations on seafloor resources and the marine environment, and contributes community service including development and leadership of public science centers.

### **AWARDS**

Hans Pettersson Bronze Medal of the Royal Swedish Academy of Sciences (1999)

NOAA Outstanding Paper (1989)

Outstanding Presentation, International Marine Minerals Society (1989)

U.S. Dept. of Commerce Gold Medal for Exceptional Scientific Contributions (1987)

Francis P. Shepard Medal for Excellence in Marine Geology (1986)

AAPG Distinguished Lecturer, National Tour (1983-1984)

### **PROFESSIONAL MEMBERSHIPS**

American Geophysical Union (Fellow; Associate Editor JGR Solid Earth 1988-1992)

Geological Society of America (Fellow; Associate Editor GSA Bulletin 1975-1982)

Acoustical Society of America (Fellow)

American Association for the Advancement of Science (Fellow)

American Association of Petroleum Geologists

International Marine Minerals Society (Charter Member)

New York Academy of Sciences

Society of Economic Geologists (Fellow)

Society of Exploration Geophysicists

Society of Sigma Xi

### **PROJECT RELATED PUBLICATIONS**

- Rona, P.A., K.G. Bemis, C.D. Jones, D. R. Jackson, K. Mitsuzawa, D. Silver, 2006, Entrainment and bending in a major hydrothermal plume, Main Endeavour Field, Juan de Fuca Ridge, *Geophys. Res. Letters*, v. 33, L19313.doi:10.1029/2006GL027211.
- Jackson, D.R., C.D. Jones, P.A. Rona, and K.G. Bemis, 2003, A method for Doppler acoustic measurement of black smoker flow fields, *Geochemistry Geophysics Geosystems*, *G<sup>3</sup>*, 4 (11): 1095, 1-12.
- Rona, P.A., D.R. Jackson, T. Wen, C. Jones, K. Mitsuzawa, K.G. Bemis, and J.G. Dworski, 1997, Acoustic mapping of diffuse flow at a seafloor hydrothermal site: Monolith Vent, Juan de Fuca Ridge, *Geophys. Res. Letters*, 24:2351-2354.
- Rona, P.A., K.G. Bemis, D. Silver, and C.D. Jones, 2002, Acoustic imaging, visualization and quantification of buoyant hydrothermal plumes in the ocean, *Mar. Geophys. Res.*, 23:147-168.
- Rona, P. A., D. R. Jackson, K.G. Bemis, C. D. Jones, K. Mitsuzawa, D. R. Palmer, and D. Silver, 2002, Acoustics advances study of seafloor hydrothermal flow (feature article), *EOS, Trans., AGU*, 83(44):497 and 501-502.

### **OTHER PUBLICATIONS**

- Rona, P.A., and C.D. Jones, Acoustic Scintillation Thermography, 2008, in J.H. Steele, S.A. Thorpe, and K.K. Turekian (Eds.), *Encyclopedia of Ocean Sciences*, in press.
- Rona, P.A., 2008, The changing vision of marine minerals, *Ore Geology Reviews*, doi:10.1016/j.oregeorev.2007.03.006, in press
- Palmer, D.R. and P.A. Rona, 2005, Acoustical imaging of deep ocean hydrothermal flows, in, H. Medwin, Editor, *Acoustical Oceanography*, Cambridge University Press, 551-553.
- Bemis, K.G., P.A. Rona, D. Jackson, C. Jones, D. Silver, K. Mitsuzawa, 2002, A comparison of black smoker hydrothermal plume behavior at Monolith Vent and at Clam Acres vent field: dependence on source configuration, *Marine Geophys. Res.*, 23:81-96.
- Lowell, R.P., and P.A. Rona, 2002, Seafloor hydrothermal systems driven by serpentinization of peridotite, *Geophys. Res. Lett.*, *Geophys. Res. Lett.*, 29(11):10.1029/2001GLO14411
- Rona, P.A., G. Klinkhammer, T.A.. Nelsen, J.H. Trefry, and H. Elderfield, 1986, Black smokers, massive sulfides, and vent biota at the Mid-Atlantic Ridge, *Nature*, 321:33-37

### **COLLABORATORS PAST 48 MONTHS**

K.G. Bemis, Rutgers University, D.R. Jackson and C.D. Jones, Applied Physics Laboratory- University of Washington, R.P. Lowell, Georgia Institute of Technology, K. Mitsuzawa, JAMSTEC, D.R. Palmer, NOAA

### **GRADUATE ADVISORS**

C.S. Clay, University of Wisconsin (formerly Columbia University)  
K.K. Turekian, Yale University