

## BIOGRAPHICAL SKETCH

### Enrico Bonatti

#### **Education:**

MSc in Geological Sciences at University of Pisa , 1959  
Science Diploma, Scuola Normale Superiore, Pisa, 1959  
Libera Docenza (Advanced Doctorate), University of Pisa, 1967

#### **Appointments:**

*Present (2012)* – Special Senior Scientist, Columbia University, Lamont-Doherty Earth Observatory, and Associate, Institute of Marine Sciences, National Research Council of Italy (CNR)  
*2003 – 2009* Professor, of Geodynamics, University of Rome, La Sapienza  
*2003 – 2006*: Director, Institute of Marine Sciences, National Research Council of Italy (CNR)  
*1997 – 2002*: Director, Institute of Marine Geology, National Research Council of Italy (CNR)  
*1997 – 2002*: Professor of Marine Geology, University of Pisa  
*1996 – present*: Special Senior Scientist, Columbia University, Lamont-Doherty Earth Observatory  
*1987 – 1996*: Doherty Senior Scientist, Columbia University, Lamont-Doherty Earth Observatory  
*1975 – 1987*: Senior Research Scientist, Columbia University, Lamont-Doherty Earth Observatory  
*1971*: Visiting Scientist, Harvard University, Fall semester  
*1971 – 1975*: Professor of Marine Geology, University of Miami, Rosenstiel School of Marine and Atmospheric Sciences  
*1968 – 1971*: Associate Professor of Marine Geology, University of Miami, Institute of Marine and Atmospheric Sciences  
*1964 – 1968*: Assistant Professor of Marine Geology, University of Miami, Institute of Marine Sciences  
*1963 – 1964*: Assistant Research Geologist, Scripps Institution of Oceanography  
*1960 – 1963*: Sverdrup Fellow in Oceanography, University of California, Scripps Institute of Oceanography  
*1959 – 1960*: Fullbright Fellow, Yale University (with Professor G.E. Hutchinson).

#### **Awards:**

1994, elected member of the Russian Academy of Sciences  
1999, awarded the “H. Patterson Medal” in Oceanography by the Royal Swedish Academy of Sciences  
2001, awarded the “Feltrinelli Prize” by the Italian Academy of Sciences (Accademia Nazionale dei Lincei)  
2003, elected “Fellow of the American Geophysical Union”  
2009, elected member of the European Academy of Sciences

#### **Scientific interests:**

Structure, composition and temporal evolution of Mid Ocean Ridges. Thermal structure and composition of the oceanic mantle. Mantle’s Hot, Cold and Wet Spots. Ridge-plume interactions. Igneous and tectonic processes during the transition from continental to oceanic rifts. Distribution and origin of water and volatiles in the Earth.

Published about 200 papers, over 20 in Journals such as Nature and Science (see attached list). Published also many popular articles (Scientific American, etc) as well as on science politics.

## Experience:

Led over 30 marine geology expeditions in the Atlantic, Pacific, Indian and Antarctic oceans, in the Red Sea and Mediterranean. Dived several times to the floor of Mid Ocean Ridges with the Alvin and Nautile submersibles. Done field work in the Afar Rift (Ethiopia), Polar Ural (Russia) and Zambales (Philippines) ophiolites, Zabargad Island (Red Sea), Tunguska (Siberia), etc. Participated on two DSDP/ODP legs. Directed the Institute of Marine Sciences of the Italian National Research Council (CNR). Served in committees and panels, including the historical first Atlantic DSDP Panel chaired by M. Ewing. Taught courses and supervised graduate students at the Universities of Miami, Columbia, Pisa and Rome La Sapienza. Lectured in Institutions around the world.

## Citation indices ([Google Scholar](#))

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## Publications (Abstract excluded)

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- Bonatti, E. (1963). Stratigrafia pollinica dei sedimenti postglaciali di Baccano, Lago craterico del Lazio. *Atti Soc. Toscana Science Natur.*, Pisa, 70: 40.
- Bonatti, E. (1965). Palagonite, hyaloclastites and alteration of volcanic glass in the ocean. *Bull. Volcanologique*, 28: 257.
- Bonatti, E. and Nayudu Y.R. (1965). Origin of Mn nodules on the ocean floor. *Am. Jour. Sci.*, 263: 17.
- Lynn, D.C. and Bonatti E. (1965). Mobility of manganese in diagenesis of deep sea sediments. *Marine Geology*, 3: 337.
- Bonatti, E. and G. Arrhenius, 1965. Eolian sedimentation in the Pacific off Northern Mexico. *Marine Geology*, 3: 457.
- Bonatti E., 1965. Il manganese nei fondi oceanici. *Atti Soc. Toscana Science Natur.*, 72: 15.
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- Arrhenius G. and E. Bonatti, 1965. The Mesa Verde Loess. *American Antiquity*, 31: 92.
- Bonatti E., 1966. North Mediterranean climate during the last Wurm glaciation, *Nature*, 209: 984.
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- Bonatti E., and O. Joensuu, 1966. Deep sea iron deposits from the south Pacific, *Science*, 154: 643.
- Bonatti E., 1967. Mechanisms of deep sea volcanism in the South Pacific. In: *Researches in Geochemistry*, 2: 453; Ed. P. Abelson; J. Wiley and Sons, New York.
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- Fisher, D.E., E. Bonatti. O. Joensuu and J. Funkhouser, 1968. Ages of Pacific deep sea basalts and spreading of the sea floor. *Science*, 160: 1106.
- Bonatti E. and O. Joensuu, 1968. Palygorskite from Atlantic deep sea sediments. *American Mineralogists*, 53: 975.
- Bonatti E., 1968. Ultramafic rocks from the Mid-Atlantic Ridge. *Nature*, 219: 363.
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- Funkhouser, J.G., D.E. Fisher and E. Bonatti, 1968. Excess argon in deep sea rocks. *Earth Planet. Sci. Lett.*, 5: 95.

- Prospero, J. and E. Bonatti, 1969. Continental dust in the atmosphere of the Eastern Equatorial Pacific. *J. Geophys. Res.*, 74: 3362.
- Bonatti E., 1969. Fissure basalts and sea floor spreading on the East Pacific Rise: A Discussion. *Science*, 165: 1181.
- Bonatti E., M. Ball and C. Schubert, 1970. Evaporites and continental drift. *Naturwissenschaften*, 57: 107.
- Bonatti E. and H. Tazieff, 1970. Exposed guyot from the Afar Rift, Ethiopia. *Science*, 168: 1087.
- Gomberg D. and E. Bonatti, 1970. High-magnesium calcite: Leaching of Mg in the deep sea. *Science*, 168: 1451.
- Bonatti E., 1970. Pollen sequences from the sediments of the lake of Monterosi (Italy). *Trans. Amer. Phil. Soc.*, 60: 26.
- Bonatti E., 1970. Deep sea volcanism. *Naturwissenschaften*, 57: 379.
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- Honnorez J. and E. Bonatti, 1970. Nepheline gabbro form the Mid-Atlantic Ridge. *Nature*, 228: 850-852.
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