Supplementary material to "Shallow Submarine Hydrothermal Systems in the Aeolian Volcanic Arc, Italy"

Published 31 March 2009

Thomas Monecke, Colorado School of Mines, Golden

Sven Petersen, Klas Lackschewitz, and Michael Hügler, Leibniz Institute of Marine Sciences at the University of Kiel, Kiel, Germany

Mark D. Hannington, University of Ottawa, Ontario, Canada

J. Bruce Gemmell, University of Tasmania, Hobart, Australia

Citation:

Monecke, T., S. Petersen, K. Lackschewitz, M. Hügler, M. D. Hannington, and J. B. Gemmell (2009), Shallow submarine hydrothermal systems in the Aeolian volcanic arc, Italy, *Eos Trans. AGU*, *90*(*13*), 110–111. [Full Article (pdf)]

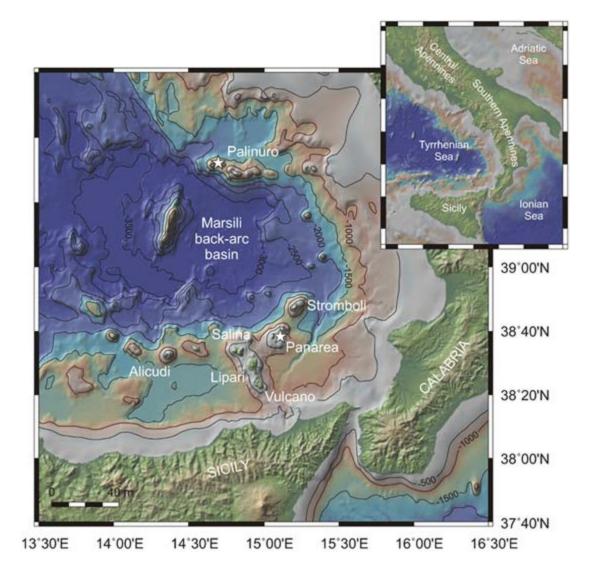


Fig. S1. Regional map of the Aeolian arc showing bathymetry and the locations of the study sites. The volcanic chain comprises seven major islands and several submarine edifices extending for approximately 200 kilometers parallel to the continental slope of northern Sicily and western Calabria.



Fig. S2. (a) Seafloor image of a tube worm colony at Palinuro. Sediment covering the surrounding seafloor shows noticeable discoloration. (b) Operation of BGS Rockdrill on board R/V Meteor. The lander-type drilling device permits drilling to a depth of 5 meters below seafloor. (c) Representative drill core of massive sulfides from Palinuro. Altered volcaniclastic rocks are underlain by polymetallic sulfides. The lower part of the core consists of massive pyrite (hole 865RD; top of core to the right; width of core box is 1.0 meter). The mineralization is locally crosscut by native sulfur veins. (d) Seafloor image of a hydrothermal explosion crater at Panarea. Sediments surrounding gas vents are indurated and partially cemented by native sulfur. A low-relief wall surrounding the crater can be observed in the background.