



because almost no sediments are lying on top of the crust, the ascent rates of the fluids are high, and due to the chemical composition of the fluids conspicuous traces on the sea floor are formed, for example the famous Black Smokers," says Dr. Hensen. There may be similar processes in other areas of the seabed, especially near fracture zones. "The newly discovered mud volcanoes are a clear indication that this conjecture is true", he adds. However, it is more difficult to find these systems with increasing distance from the mid-ocean ridges, because they become less dynamic and the sediment thickness increases.

The current publication is an important basis for further research projects, which should help to better understand the mechanisms of fluid transport in the seabed. During the recent expedition of the new German research vessel SONNE (SO237) the sea floor of the Atlantic Ocean along a prominent fracture zone was mapped again by the AUV ABYSS to get more data for future projects.