

Within the evaluation project of research cruise M60/3 with R/V Meteor (15.01.-13.02.04), the hydrothermalism at 15°N of the Mid-Atlantic Ridge and its interrelation with the geological and biological environment will be investigated in three hydrothermally active areas. Part of the work will deal with the dependency of the fluid and mineral composition of the tectonic activity and the type of basement rock (basalt, peridotite). Another main focus will be put on geo-bio interfaces and the investigation of chemical species (especially sulfur species and redox speciation and complexation of metals) in the fluids, which is vital for the organisms living in and from the fluids. Furthermore, boiling and phase separation in the fluids and its consequences for mineral formation and the associated ecosystems will be investigated. The main target area is the Logatchev field at 14.45°N where a large variety of emanating fluids, mineral precipitates and biotopes is known to exist.