

**FIRST EVIDENCE OF ECLOGITE-FACIES METAMORPHISM IN THE SHACKLETON RANGE, ANTARCTICA: TRACER OF A SUTURE BETWEEN EAST- AND WEST-GONDWANA?**E. Schmaedicke<sup>1</sup>, T. Will<sup>2</sup>, H.E. Frimmel<sup>2</sup>*<sup>1</sup>University of Erlangen, Erlangen, Germany, <sup>2</sup>University of Wuerzburg, Wuerzburg, Germany*

The Shackleton Range in East Antarctica is part of the network of Pan-African/Brasiliano collisional orogens that dissect the various Gondwana continents. In the northern Shackleton Range, Alpine-type ultramafic rocks occur as lenses in high-grade gneisses. These include peridotite and pyroxenite that contain garnet and/or spinel in addition to olivine, orthopyroxene and clinopyroxene. Thermobarometric results are in the range of 20–23 kbar and 710–810 °C, corresponding to a peak metamorphic gradient of ~11 °C/km, which is typical of subduction-zone metamorphism. This finding is the first evidence of eclogite-facies metamorphism in the Shackleton Range and, to our knowledge, the first documented eclogite-facies ultramafic rocks in a Pan-African orogen. The ultramafic rocks are clear evidence of a suture zone within the northern Shackleton Range, which possibly marks the convergence site between East- and West-Gondwana.