



## **MOC observations between Greenland and Portugal in Summers 1997, 2002 and 2004**

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The Ovide project aims at repeating a transoceanic hydrographic section from Greenland to Portugal every other years for ten years. The goal is to contribute to the monitoring of the inter-annual variability of the water masses as well as the variability of the mass, heat, and tracer transports in the northern North Atlantic Ocean. The first two OVIDE cruises occurred in June-July 2002 and 2004 on R/V Thalassa along a path close to that of the 1997 4X section. The observed distributions of hydrographic tracers and mass and heat transports obtained from an inverse model are discussed. The MOC values found in 2004 are 1 to 1.5 Sv stronger than in 2002, but weaker than the new 4X estimates of 1997, and this variability will be discussed at the light of the vertical distribution of mass transports and the water mass properties. The 2004 results show an intermediate state between 1997 and 2002, consistently with the transport in the Deep Western Boundary Current and the North Atlantic Current.