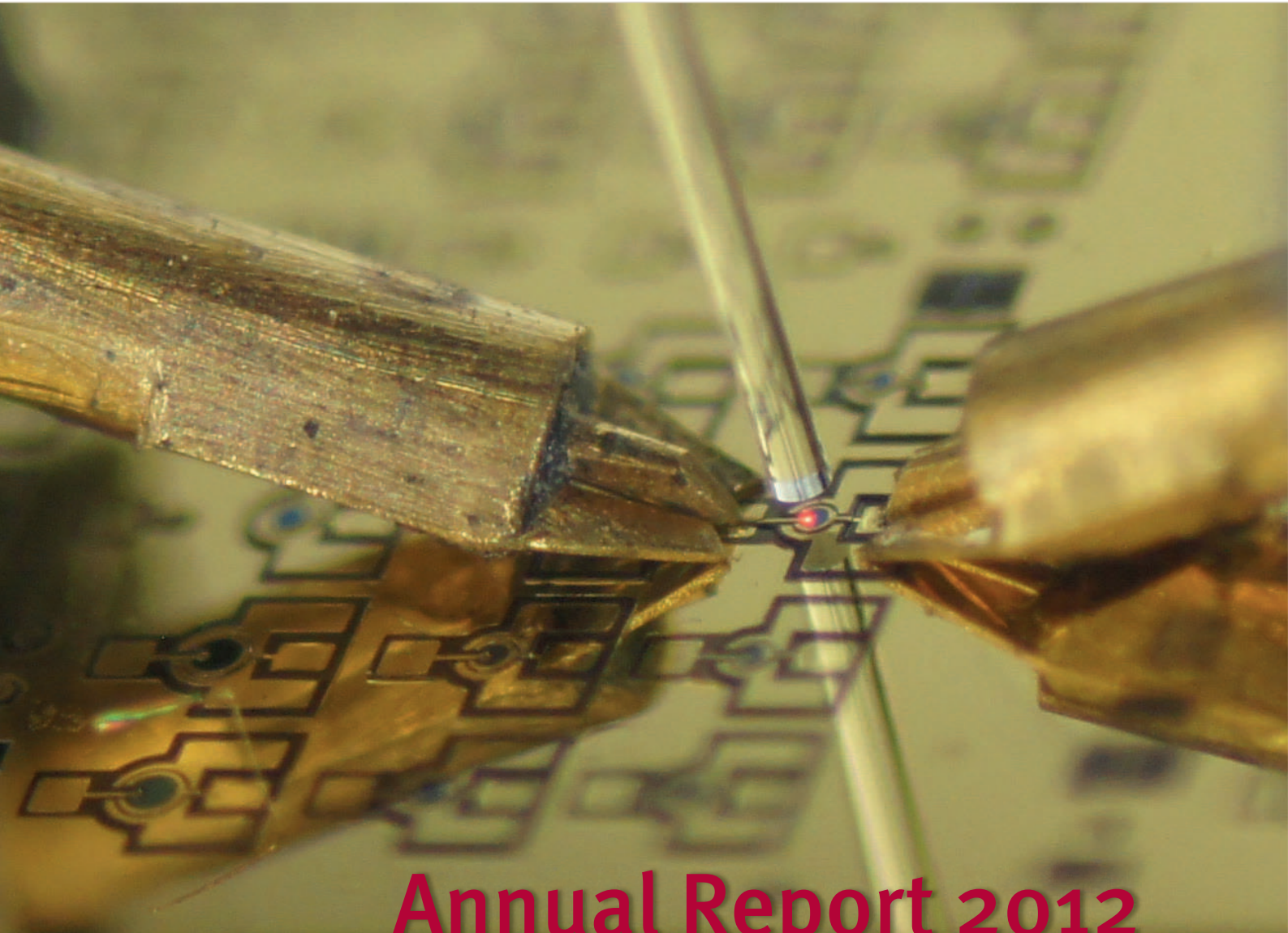




ulm university universität
uulm



Annual Report 2012

Institute of Optoelectronics

Cover photo:

On-wafer high-frequency testing of an optoelectronic transceiver device for bidirectional data transmission over an optical multimode fiber. A vertical-cavity surface-emitting laser (VCSEL) is monolithically integrated with a PIN-type photodiode. Electrical contacts are established by two ground–signal–ground microwave probes. In the photo, the optical fiber with 125 μm outer diameter is displaced from the chip. For actual operation, the fiber is butt-coupled with a distance of only about 30 μm . See the related article on transceiver chips.