

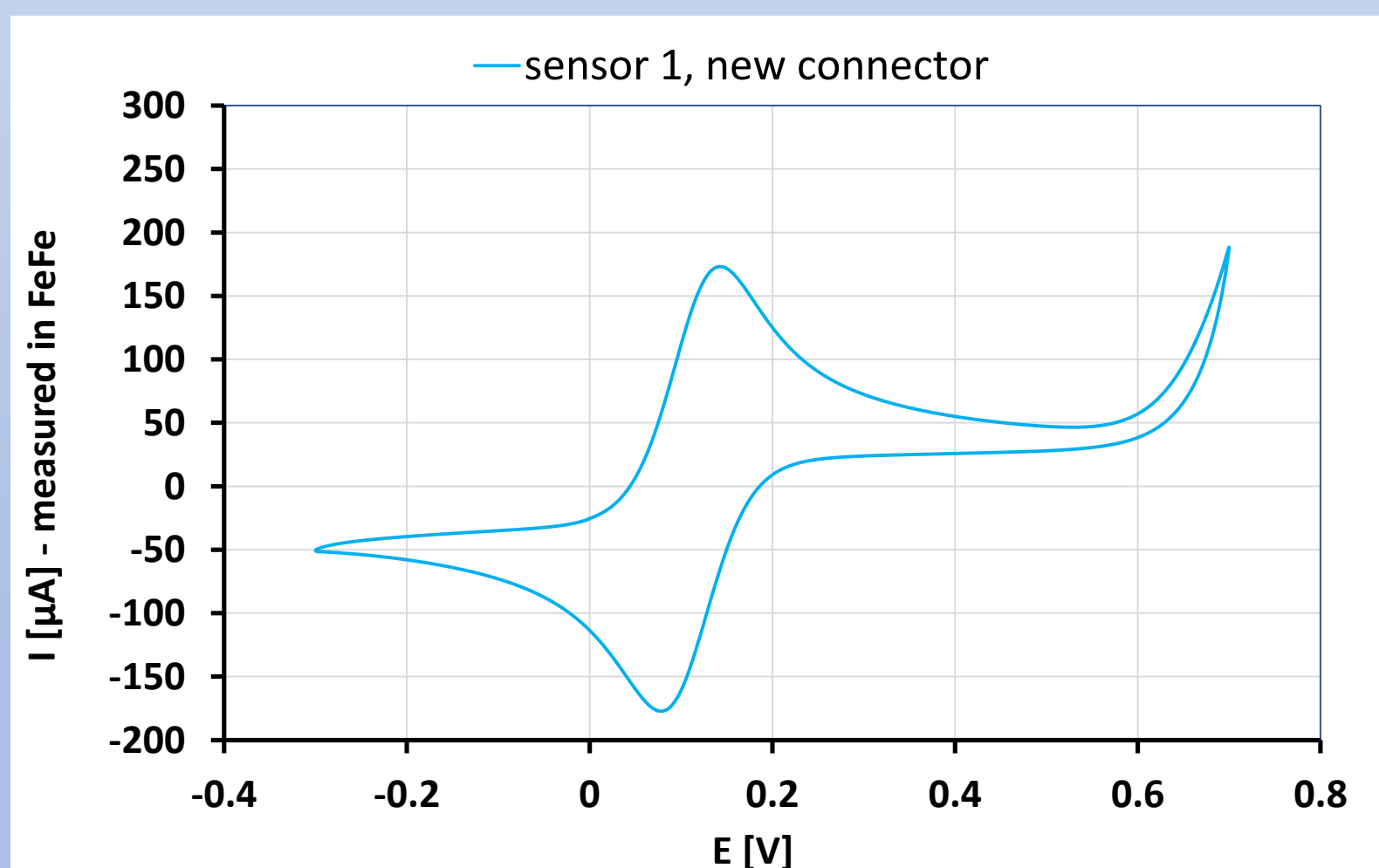
Connector quality and its effect on measurements with screen-printed electrode sensors (SPE)

During electrochemical measurements with SPE sensors, care must be taken that liquid does not get into the connector contacts.

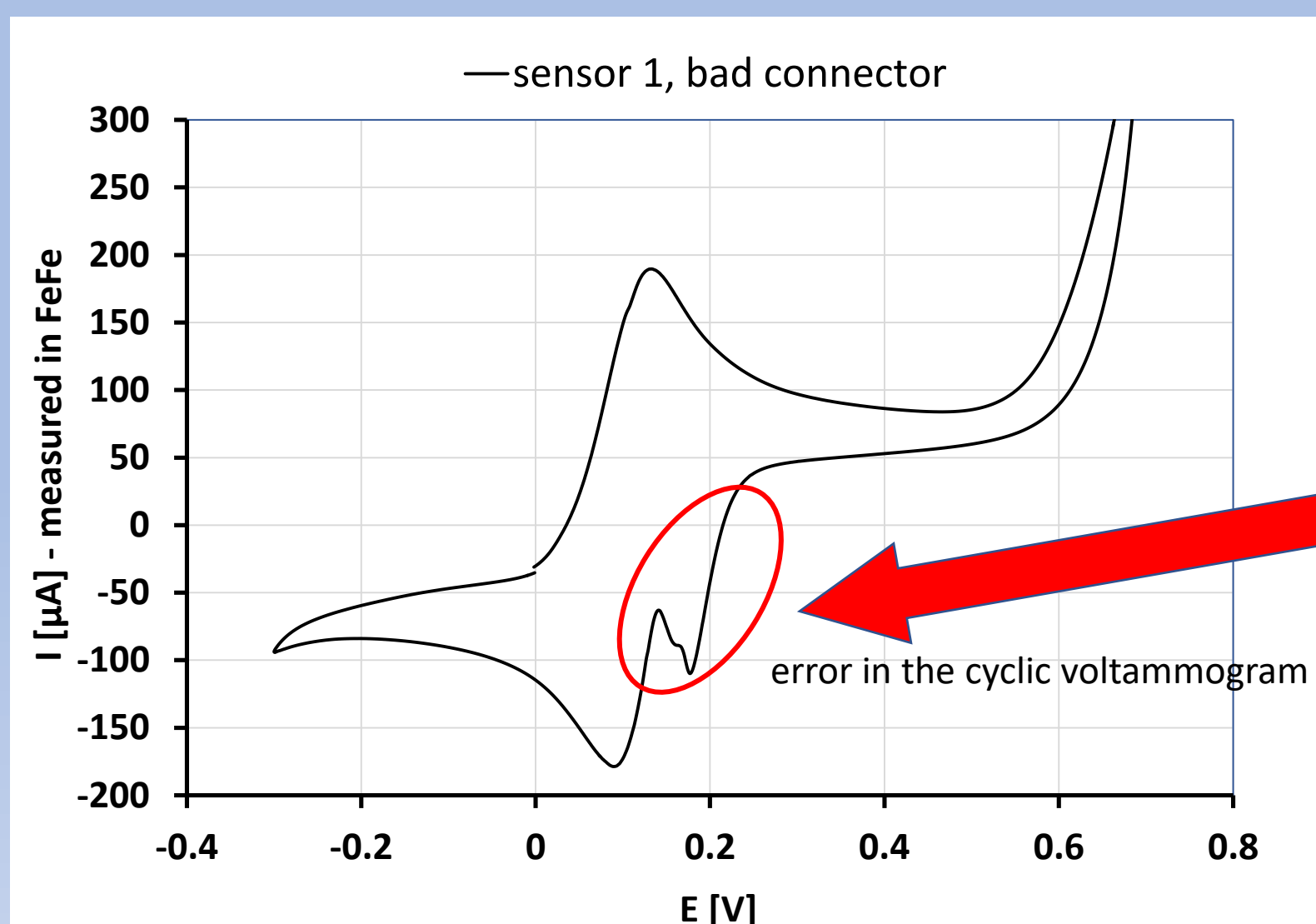
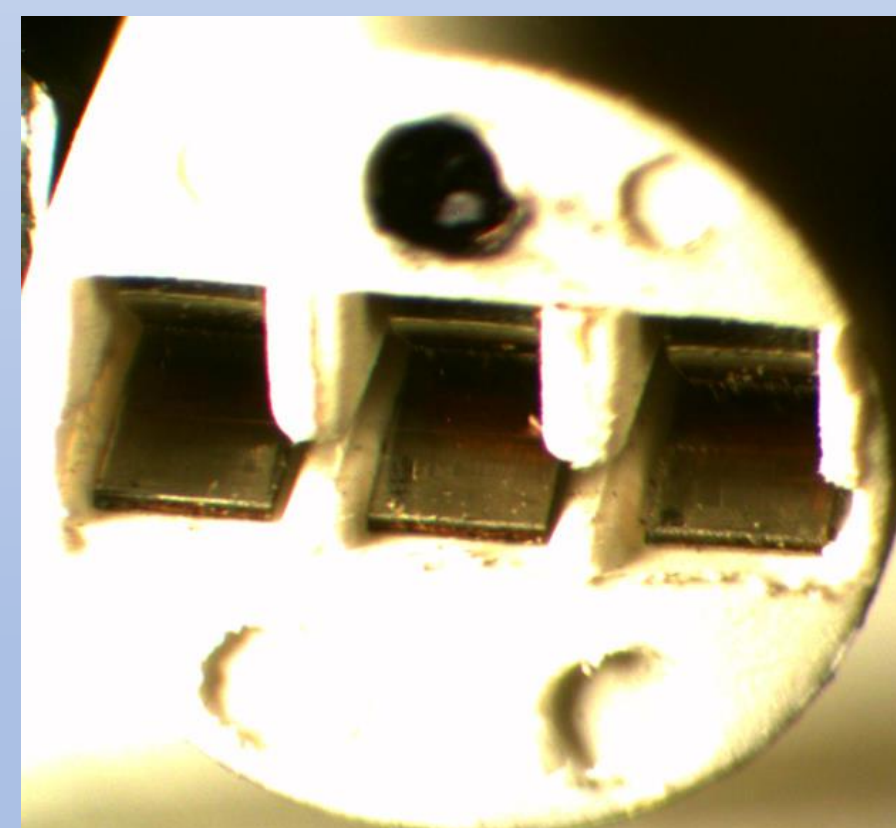


Measurements were made with the same sensor, in one case a new connector was used and in the other case an old connector with corroded contacts.

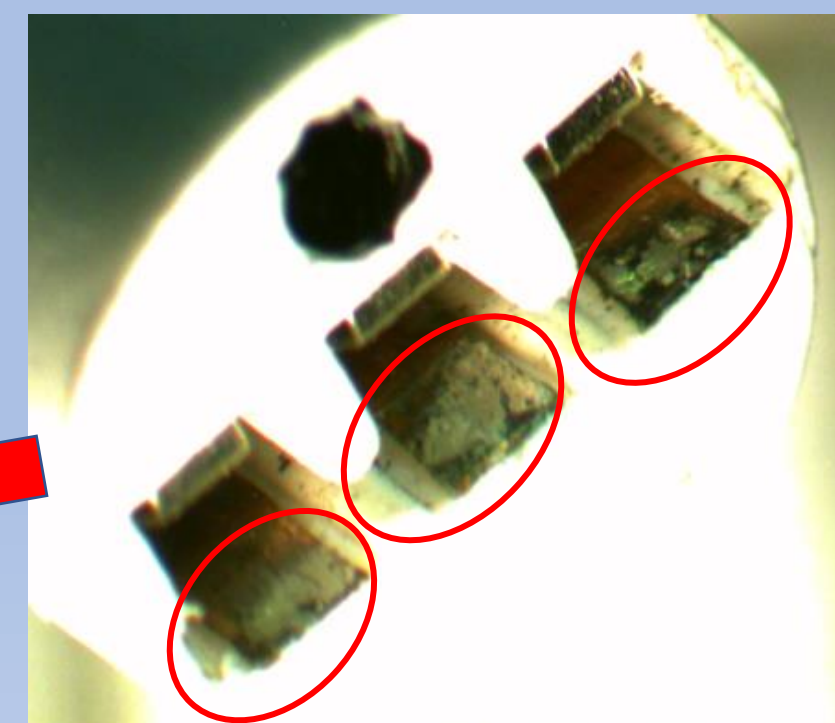
Below are examples of cyclic voltammetry measurements from a platinum SPE sensor (type AC1.W2.RS) in a solution of 0.005M Potassium Ferri-ferro Cyanide in 0.2M KOH. Voltage range 700 to -300 V, scanning speed 50 mV/s. An eDAQ potentiostat with the Echem measurement program was used for the measurement.



New connector



Old connector with corroded contacts !



Due to moisture, improper storage, etc., corrosion of the connector contacts may occur over time. Such a defective connector then affects the measured results - see graph.