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The invention relates to methods for measuring the protective potential, to installations for determination of the protective potential and automatic maintenance of the potential value during metal protection from corrosive destruction in the current-conducting media.

The method for measuring the protective potential value consists in that the metal-electrolyte system is polarized with periodic current with reverse pulse, it is carried out the break in the electric circuit and it is measured the value of the protective potential. Novelty consists in that polarization of the system is carried out with an equal quantity of electricity contained in the main and reverse pulses.

The installation (1) for measuring the protective potential value of the metal, containing an auxiliary electrode (4), a protectable metal (5), a potential comparison electrode, an oscillograph (6), an electrical bridge (7) including two pulse shapers (10, 10a), two ammeters (8, 8a), connected by a resistor (22) and a microammeter (21) for determining the difference of the forward and reverse currents, connected across a bridge diagonal for obtaining the periodic current of reverse pulse; an interrupter (12), an adjustable resistor (22), a power transformer (23) with a main secondary winding (38a) and two additional secondary windings (34, 38), a bank of capacitors (31), a regulator of single-phase current (24), a capacitor (32) and an inductance (55) for separating the constant and periodic currents.

The automatic installation for electrochemical anticorrosive protection of metals (33) contains a constant polarization current source (25), a current source (34) for power supply of the electric motor (35), a current source (38) and a rectifier bridge (39) for power supply of the operational amplifier (42) circuits, voltage regulators (40, 41), a transistor bridge (43), an adjustable resistor (44) of the reference voltage, a resistor (47), an ammeter (56), a reference voltage stabilizer (58), an adjustable resistor (59), a resistor (60), a final control element (61), a regulator of single-phase current (24), two diodes (62, 63), connected in parallel opposition, capacitors (64, 65).

Claims: 4
Fig.: 1