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The invention relates to a photocatalytic process for water purification and may be used for water purification from organic impurities.

Summary of the invention consists in that the proposed process includes the photocatalytic treatment of water with ultra-violet rays in the presence of hydrogen peroxide and ions of polyvalent metals. At the same time, the ions of polyvalent metals are galvanochemically generated in the field of contact galvanic couples formed at charging of the iron and/or ferromanganese alloy particles, in the capacity of anode and carbonic material and/or copper – of cathode, at the magnetic liquefaction, realized by the motion in the alternating electromagnetic field of 0,2...0,4 T of the spherical barium hexaferrite particles magnetized to saturation, and the photocatalytic treatment is carried out in the flow, with the linear velocity of 10...20 cm/min, in the mass ratio hydrogen peroxide/organic matters of (3...4):1, at a pH of 4,0...4,6 and ultra-violet irradiation of 12...20 mJ/cm².

Claims: 1