

A method for the preparation of ethers by hydration of respective alcohols at the temperature of 70-180 °C and pressure of 0.1-10.0 MPa. The process is performed in the reaction zone, formed by two catalytic proton-conductive sulfated or by fluorine-sulfated polymer-organic membranes, to which, along with reaction mixture alcohol/water, at a rate of 0.001-0.10 mol/Gcatalyst.hour hydrogen is constantly supplied, which ionization on electrodes with a highly developed surface (from 200 m²/g), covered the layer of palladium black, platinum, nickel (or their mixtures) in thickness of not less than 20 μm, results in creation of protons currents through membranes, which allows to increase the degree of alcohol conversion to 80% and reaction selectivity with ether to 90%.