

A New Film Molybdate- and Tungstate-selective Electrodes Based on Higher QAS with Different Steric Accessibility of the Exchange Center

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Received: October 04, 2016; Accepted: November 17, 2016

DOI: 10.17721/moca.2017.24-30

The membranes composition of tungstate- and molybdate-selective electrodes based on higher QAS is optimized. It is found that the best analytical characteristics of electrodes are based on chloride 3,4,5-trisdodecyloxy)-benzyltrimethylammonium (TM) and chloride 4(3,4-dicetoxyphenyl)buthyltrimethylammonium (DCPBTM) with the addition in membranes of the solvating additive – n-heptyl ester 4-trifluoroacetylbenzoic acid. Their analytical characteristics: lower detection limits; selectivity coefficients relative to interfering chloride, sulfate, oxalate ions, molybdate and tungstate ions, respectively; working range of pH; slope of the electrode function are determined.

Keywords: tungstate- and molybdate-selective electrodes, quaternary ammonium salts