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ELECTROCHEMICAL DETERMINATION OF MERCURY (II) WITH A MFCMDEDTK SOLUTION IN THE MEDIUM OF DIMETHYLPHARMAMIDE

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ABSTRACT

The article studies the voltammetric behavior of MPCMDEDTC in dimethylpharmamide (DMF) in the presence of background electrolytes of different acid-base properties in the anodic region of polarization of a platinum microdisk electrode. MPKMDEDTC is oxidized against the background of 0.125 M lithium perchlorate, forming one clearly pronounced anodic wave with E1 / 2 = 0.85 V, while the wave height changes in proportion to the depolarizer concentration. Amperometric titration of mercury (II) with two indicator electrodes with a standard solution of MPKMDEDTC in DMF medium is proposed.

KEYWORDS: *Mercury (II), 4-Methoxyphenyl Carboxymethyl Diethyl Dithio Carbamate, Solution, Lithium Perchlorate, N-Propanol, Dimethylpharmamide, Microdisk Electrode, Indicator Electrode, Half-Wave Potential, Depolarizer, Background Electrolytes*

LITERATURE

1. Gevorgyan A.M., Khadeev V.A. Solubility and polarographic behavior of complexone III on a platinum microanode in anhydrous acetic acid medium. Reports of the Academy of Sciences of the UzSSR, 1973, vol. 12, p. 22.
2. Gevorgyan A.M., Talipov Sh.T., Khadeev V.A. Biamperometric titration of zinc, indium and copper with complexone III in a non-aqueous medium. Zavodsk. laboratory, 1976, vol. 42, p. 646.
3. Gevorgyan A.M., Khadeev V.A., Kostylev V.S. Current-voltage behavior of EDTA on a platinum microanode in propyl alcohol. Reports of the Academy of Sciences of the UzSSR, 1979, vol. 3, p. 48.
4. Gevorgyan A.M., Khadeev V.A., Kostylev V.S. EDTA is an analytical reagent for calcium and magnesium in non-aqueous amperometry. Reports of the Academy of Sciences of the UzSSR, 1979, vol. 5, p. 49.
5. Songina O.A., Zakharov V.A. Amperometric titration. M .: Chemistry. 1979.237 p.
6. Gevorgyan A.M., Rakhmatov Kh.B., Sirlibaev T.S., Tsagaraev E.G. Amperometric titration in non-aqueous media. Tashkent: Publishing house of Tashkent State University. Part 2.1993.135 p.
7. Otabek Abdukarimovich Mirzaev, Shavkat Serabovich Tursunov // Theoretical substantiation of the deformed state of the shell of the feeding cylinder of spinning machines // Oriental renaissance: Innovative, educational, natural and social sciences // 2021.1092-1103 https://cyberleninka.ru/article/ n / teoreticheskaya-obosnovaniya-deformirovannogo-sostoyaniya-obolochki-pitayuschego-tsilindra-pryadilnyh-mashin
8. T Khankelov, S Tursunov, Z Maksudov // Domestic Solid Waste Crusher // International Journal of Psychological Rehabilitation 24 (issue 07), 8090-8096 psychosocial.com/article-category/issue https://www.psychosocial.com/article/PR270784/18957/
9. Tavbay Khankelov[1], Zokir Maksudov[1]*, Nafisa Mukhamedova[1] and Shavkat Tursunov[2] // Crushing and screening complex for the production of compost from organic components of municipal solid waste // Interaction of Materials Resistance Science With Other General-Military Disciplines In Engineering Specialties // 2021. https://www.e3s-conferences.org/articles/e3sconf/abs/2021/40/e3sconf_conmechydro2021_01026/e3sconf_conmechydro2021_01026.html
10. OliyaNurova Salomovna[1], AsrorNazarov Allanazarovich[2], TursunovShavkatSerabovich // Interaction of Materials Resistance Science With Other General-Military Disciplines In Engineering Specialties // https://www.annalsofrscb.ro/index.php/journal/article/view/5911
11. TursunovShavkatSerabovich // Analysis of existing desings of crushers for crushing municipal solid waste// International Journal for Innovative Engineering and Management Research(IJIEMR) // https://scopedatabase.com/documents/00000181/00000-84600.pdf // 2021