

SPECTROPHOTOMETRIC DETERMINATION OF CALCIUM WITH CHLOROPHOSPHONAZO III IN THE PRESENCE OF YTTRIUM AND ALUMINUM

O.V. GAYDUK

References:

1. Vovk O.M., Chaika M.A., Dulina N.A., Doroshenko A.G., Parkhomenko S.V. Influence nanopowder SiO₂·CaO on optical characteristic of ceramic YAG:Ca,Cr. International research and practical conference "Nanotechnology and nanomaterials" (NANO-2015). Book of abstracts. Lviv, Ukraine, 2015. P. 501
2. Chaika M.A., Vovk O.M., Safronova N.A., Parkhomenko S.V., Doroshenko A.G., Tolmachev A.V. Mutual influence of additives of Ca and Si on properties of Cr-doped YAG ceramics. *Functional mater.* 2016, 23(3), 398–403.
3. Brudz V.G., Lukin A. M., Smirnova K.A. Assortiment reaktivov na kaltsiy. Moskva: NIITEHim. 1969, 543 s.
4. Prokopov T.S.. Spectrophotometric determination of calcium. *Microchim. Acta.* 1973, 61(3), 429–434.
5. Gordon H., Norwitz G. Spectrophotometric determination of calcium in zirconium powder by use of murexide. *Talanta.* 1972, 9(1), 1–6.
6. Kazama T., Mamada K., Ito J., Osawa S., Yonemitsu H.Y. The colorimetric determination of serum calcium with methylxlenol blue. *Jpn. J. Med. Tech.* 1990, 39, 1820–1826.
7. Gómez E., Estela J.M., Cerdà V. Simultaneous spectrophotometric determination of calcium and magnesium in water. *Anal. Chim. Acta.* 1991, 249(2), 513–518.
8. Li Z., Tang J., Pan J. Direct spectrophotometric determination of calcium in clinical samples with carboxyazo-p-CH₃. *Anal. Chim. Acta.* 2002, 452(2), 303–309.
9. Hong-Wen Gao. Spectrophotometric Determination of Trace Amounts of Calcium Using the Calcium Complex with Alizarin. *J. Braz. Chem. Soc.* 2002, 13(1), 78–81.
10. Themelis D.G., Tzanavaras P.D., Anthemidis A.N., Stratis J.A.. Direct, selective flow injection spectrophotometric determination of calcium in wines using methylthymol blue and an on-line cascade dilution system. *Anal. Chim. Acta.* 1999, 402, 259–266.
11. Mironova O.Yu., Vasyuk S.O. Spektrofotometrichne viznachennya atorvastatinu kaltsilyu v tabletkah. Aktualni pitannya farmatsevtichnoyi i medichnoyi nauki ta praktiki. 2015, 1, 32–35.
12. Leytes E.A., Timoshkina N.V. Spektrofotometricheskoe opredelenie kaliya, natriya i kaltsiya v syivorotke krovi. *Izvestiya AltGU.* 2010, 3(67), 157–162.
13. Shishov A.Y., Nikolaeva L.S., Moskvina L.N., Bulatov A.V. Fully automated spectrophotometric procedure for simultaneous determination of calcium and magnesium in biodiesel. *Talanta.* 2015, 135(1) April, 133–137.
14. González-González J., Nájera-Lara M., López-Ramírez V., Ramírez-Vázquez J.A., Segoviano-Garfias J.J.N. Spectrophotometric determination of the formation constants of calcium(II) complexes with 2,2'-bipyridyl and 1,10-phenanthroline in acetonitrile. *Resour. Eff. Technol.* 2016, 2 (4), 240–246
15. Yakovlev P.Ya., Zhukova M.P. Metodyi otdeleniya i opredeleniya kaltsiya v legirovannykh stalyah s reagentom hlorfosfonazo III. *Zavodsk. labor.*, 1971, 37(11), 1292–1296.
16. Ferguson J.W., Richard J.J., O'Laughlin J.W., Banks C.V. Simultaneous Spectrophotometric Determination of Calcium and Magnesium with Chlorophosphonazo III. *Anal. Chem.* 1964, 36(4), 796–799.
17. Frumina N.S., Kruchkova E.S., Mushtakova S.P. Analiticheskaya himiya kaltsiya. Moskva: Nauka, 1974. 252 s.
18. Lazarev A.I. Organicheskie reaktivyi v analize metallov. Moskva: Metallurgiya, 1980. 232 s.
19. Zenki M., Ohmuro K., Tōei K. Flow injection spectrophotometric determination of calcium in rain and snow with chlorophosphonazo III. *Fresenius' J. Analyt. Chem.* 1990, 338(6), 707–709.
20. Hokazono E., Osawa S., Nakano T., Kawamoto Y., Oguchi Y., Hotta T., Kayamori Y., Kang D., Cho Y., Shiba K., Sato K. Development of a new measurement method for serum calcium with chlorophosphonazo III. *Ann. Clin. Biochem.*, 2009, 46, 296–301.
21. Zhao H. L., Cheng X., Chang J. Spectrophotometric Determination of the Ca Ion Content in Steel Slag by Using Chlorophosphonazo as the Spectral Chromogenic Reagent. *Adv. Mater. Res.* 2011, 306–307, 989–993.
22. Nepomnyaschaya N.A., Menkov A.A., Lenskiy A.S. Spektrofotometricheskoe opredelenie lantana pri pomoschi hlorfosfonazo III v prisutstvii skandiya, ittriya i redkozemelnykh elementov ittrievoy podgruppyi. *Zhurn. analit. Himii.* 1976, 31(6), 1138–1145.