

Revealing the possibilities for applying highly fluorinated polymers as eluent modifiers in thin-layer chromatography

© Svaytoslav V. Nayden,^{1*} Ludmila A. Kartsova,¹ Daria V. Dzema,¹
and Gennady A. Emelyanov²

¹ Chemical Faculty, Department of Organic Chemistry. St.-Petersburg State University.
Universitetskiy Prospect, 26. Petrodvorets. St.-Petersburg, 198504. Phone: +7 (812) 428-67-33.

Email: sv.nayden@gmail.com

² FGUP "NIISK". Gapsalskaya St., 1, St.-Petersburg, 198035. Phone: +7 (812) 251-40-28.

*Supervising author; †Corresponding author

Keywords: *thin-layer chromatography, fluoropolymer, eluent modifier, vitamin B, amino acids.*

Abstract

Two water-soluble high fluorinated polymers (FS-141m and AE FS-101m) were synthesized and the possibility of their application as eluent modifiers in thin-layer chromatography was studied. Application of both polymers stimulates the efficiency increase in amino acids (*glycine, lysine, tryptophan, glutamic acid*) and vitamins B (B₁ thiamine, B₆ pyridoxine, B₁₂ cyanocobalamin), as it is shown by our work.