

Supplementary Materials

Surface and Structural Characterization of PVTMS Films Treated by Elemental Fluorine in Liquid Perfluorodecalin

Nikolay A. Belov ^{1,2,*}, Aleksandr Y. Alentiev ^{1,2}, Dmitrii S. Pashkevich ^{1,3}, Fedor A. Voroshilov ¹, Edgar S. Dvilis ¹, Igor P. Asanov ⁴, Roman Y. Nikiforov ^{1,2}, Sergey V. Chirkov ^{1,2}, Daria A. Syrtsova ², Julia V. Kostina ² and Yulia G. Bogdanova ⁵

¹ Tomsk Polytechnic University, 30, Lenin Avenue, 634050 Tomsk, Russia

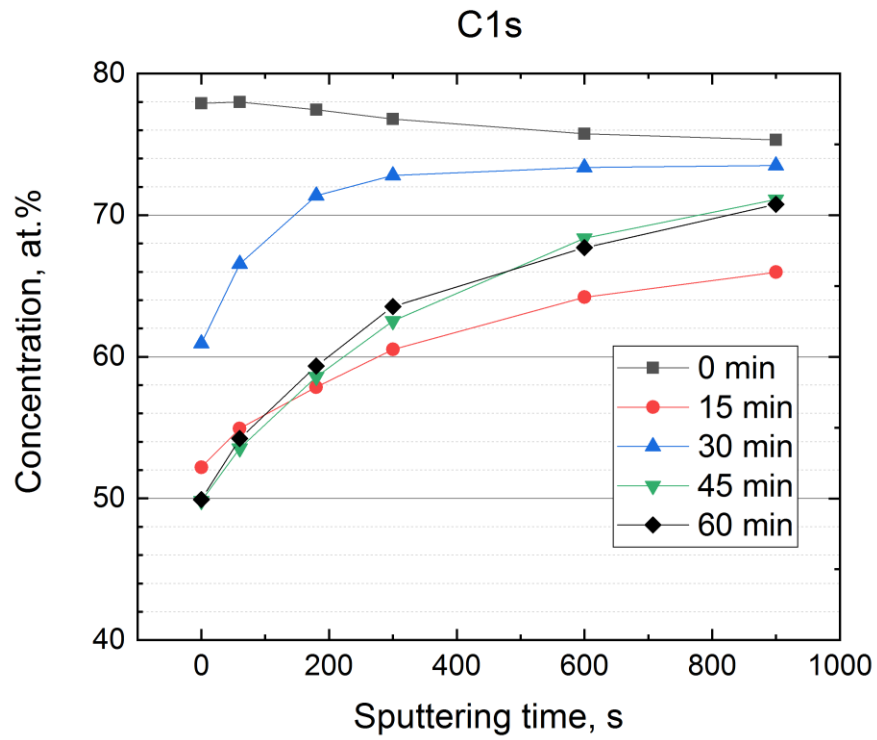
² A.V. Topchiev Institute of Petrochemical Synthesis, Russian Academy of Sciences, 29, Leninskii Prospect, 119991 Moscow, Russia

³ Institute of Applied Mathematics and Mechanics, Peter the Great St. Petersburg Polytechnic University, 29, Polytechnicheskaya St., 195251 Petersburg, Russia

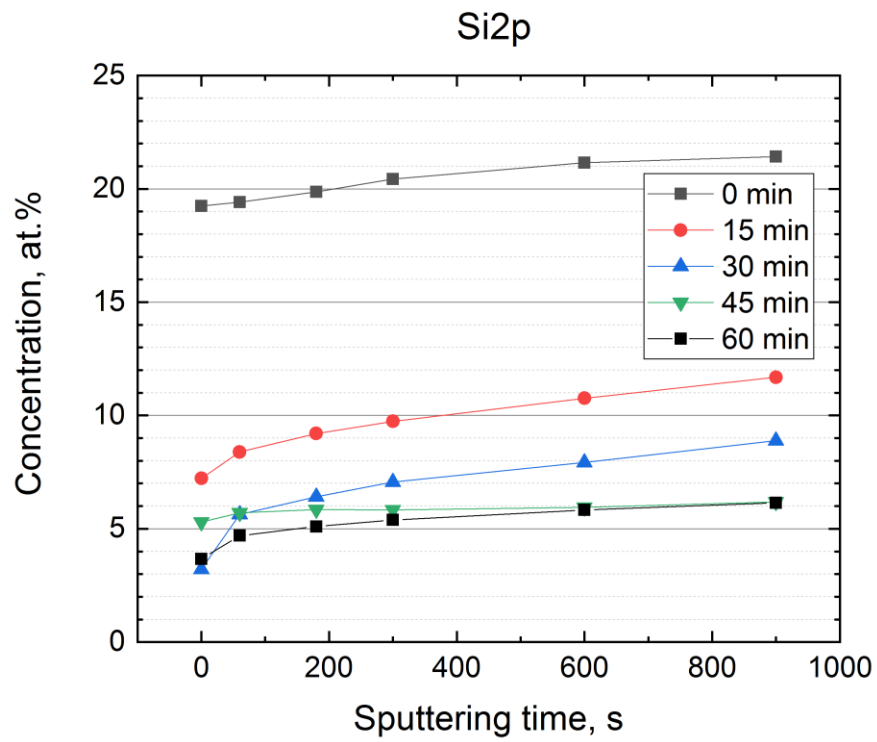
⁴ A.V. Nikolaev Institute of Inorganic Chemistry, Siberian Branch of Russian Academy of Sciences, 3, Academician Lavrentiev St., 630090 Novosibirsk, Russia

⁵ Chemical Department, M.V. Lomonosov Moscow State University, GSP-1, Leninskie Gory, 119991 Moscow, Russia

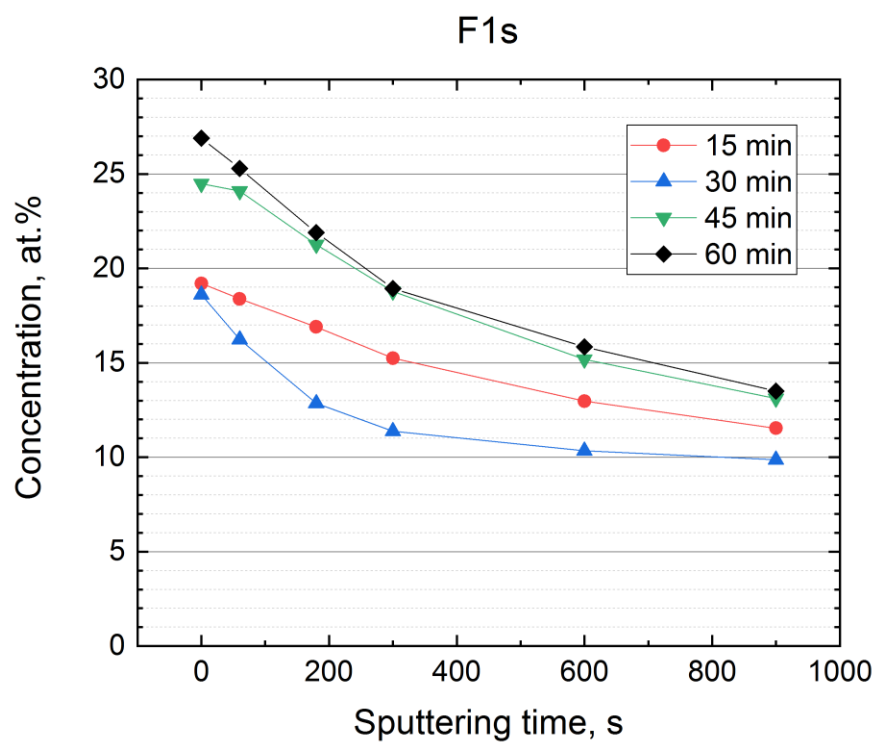
* Correspondence: belov@ips.ac.ru; Tel.: +7-(926)-432-8323



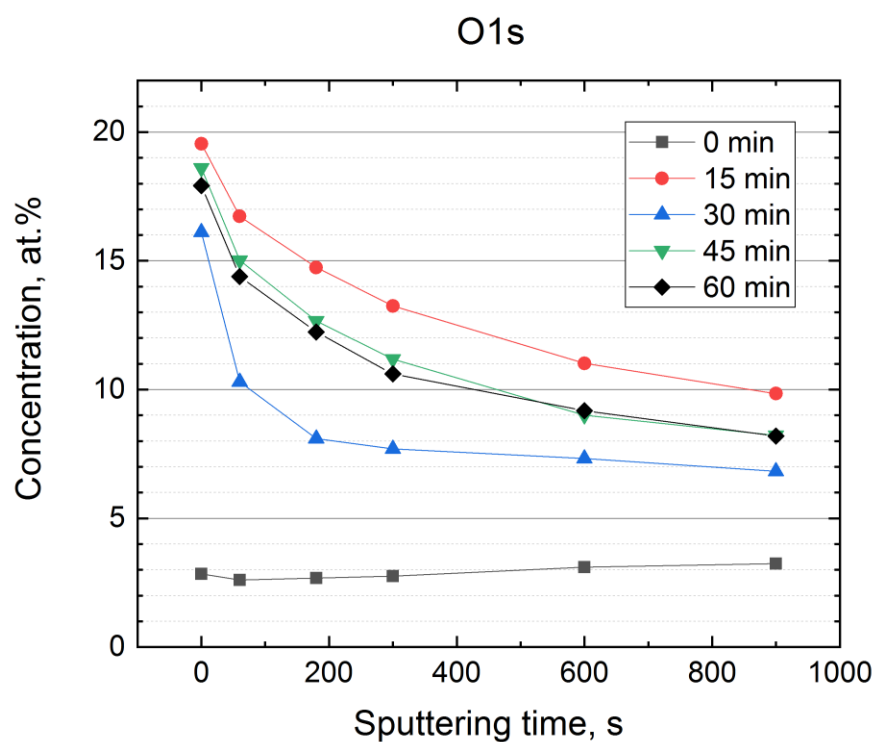
(a)



(b)

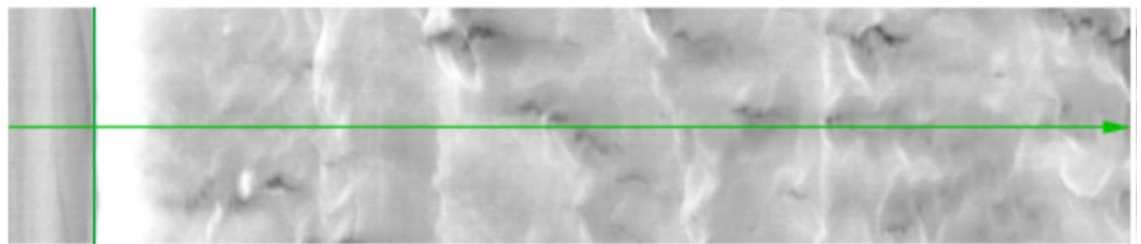
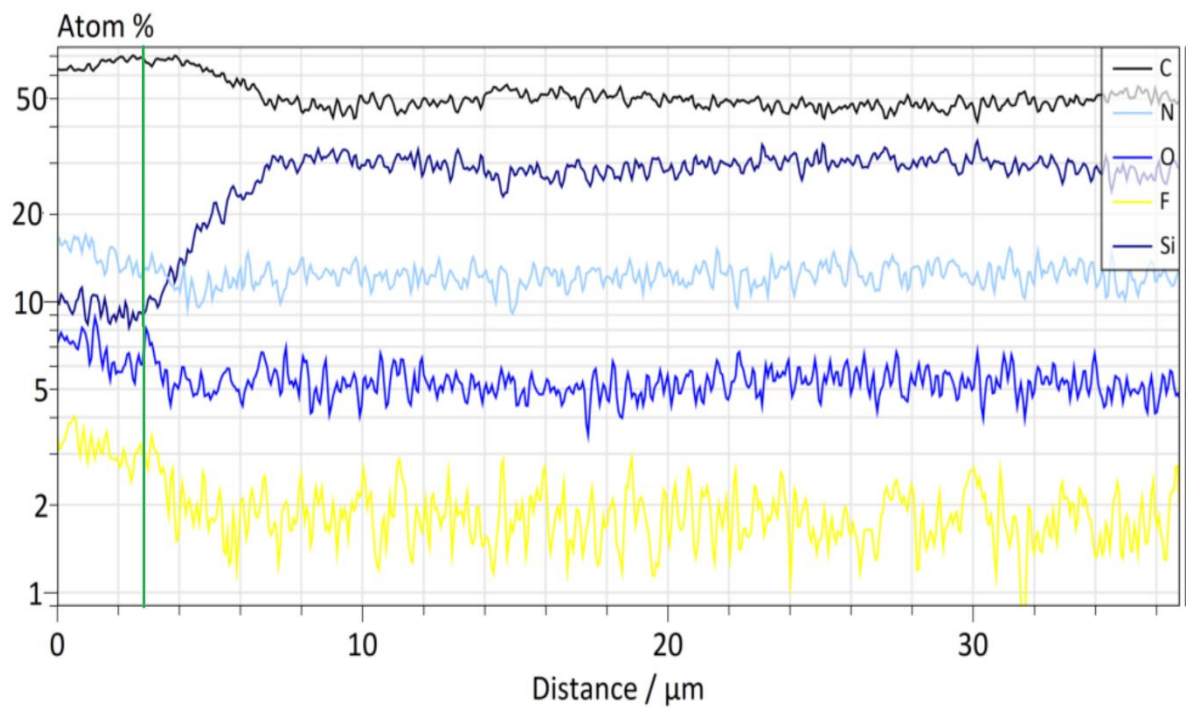


(c)

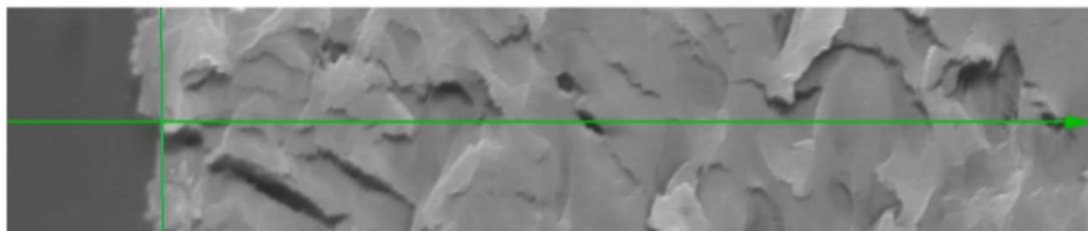
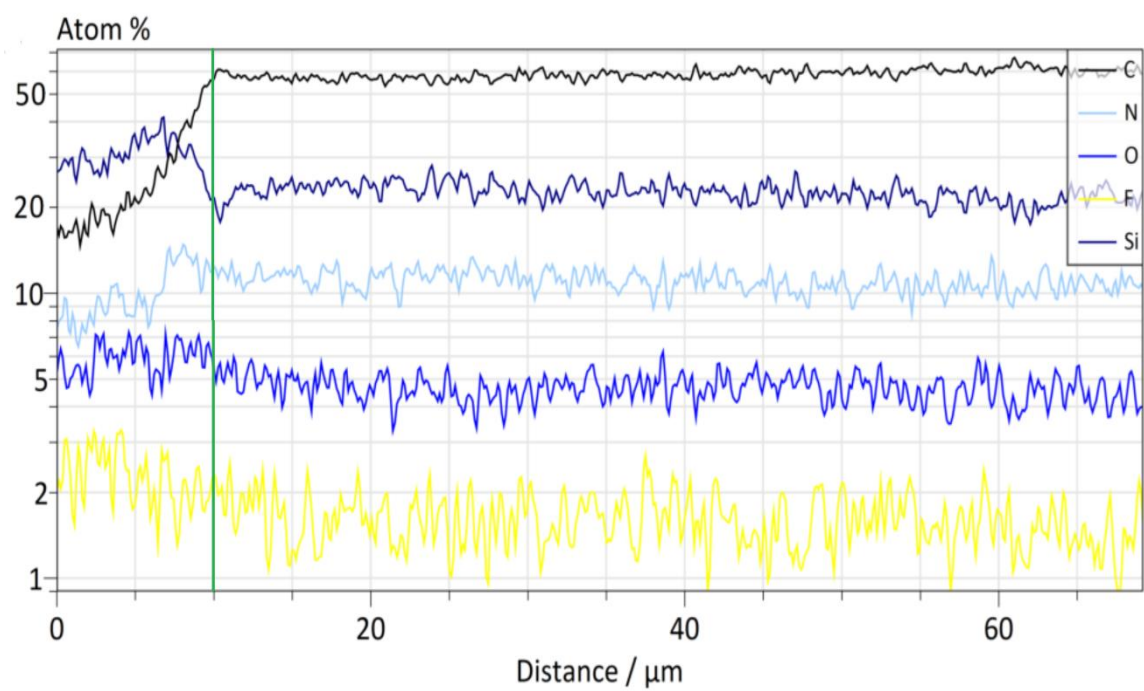


(d)

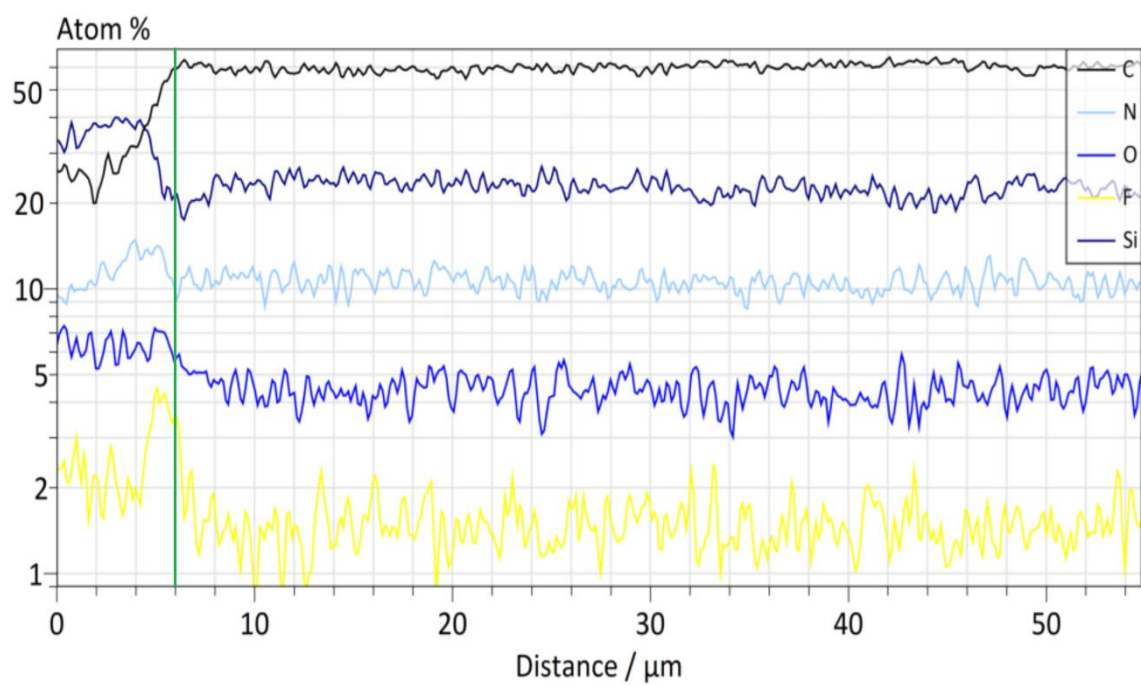
Figure S1. XPS spectra of C1s (a), Si2p (b) F1s (c) and O1s (d) lines for virgin PVTMS sample without and after Ar^+ irradiation etching for 60, 180, 300, 600 and 900 s



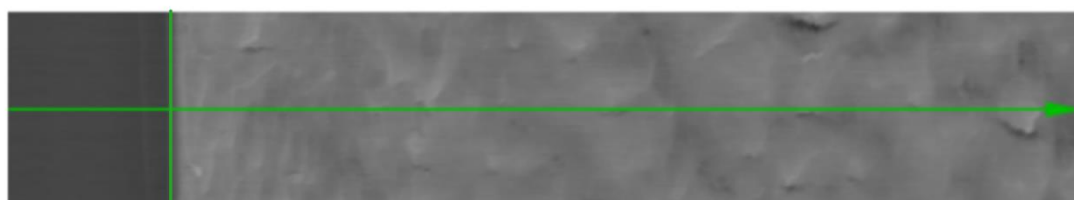
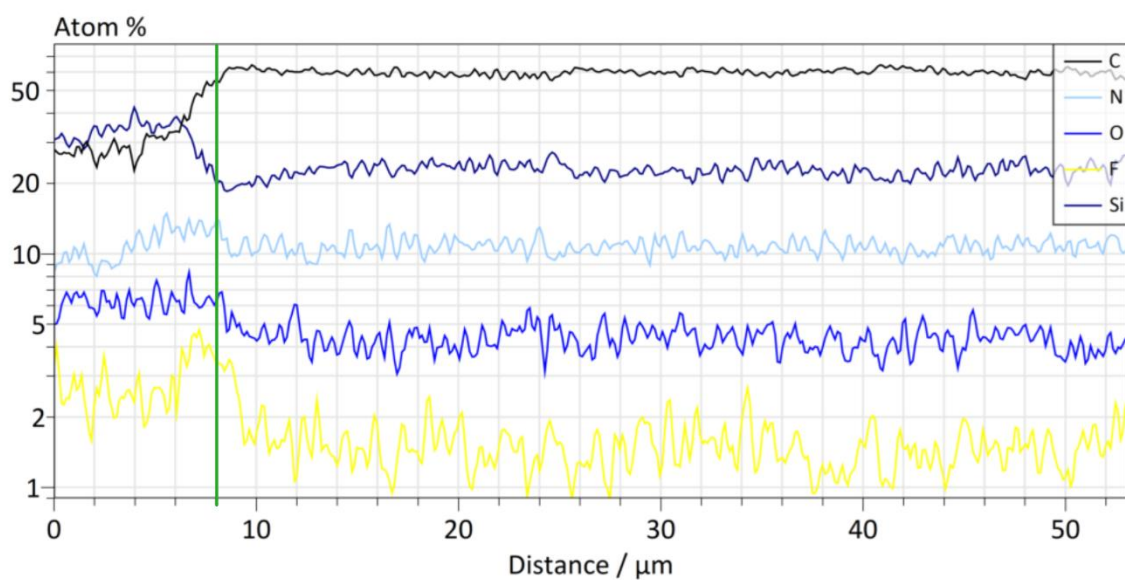
(a)



(b)



(c)



(d)

Figure S2. Curves of the atomic content of fluorine along the cross-section surfaces of the samples treated for 15 (a), 30 (b), 45 (c), and 60 (d) min. The vertical green lines correspond to the zero-depth surface of the fluorinated PVTMS samples