



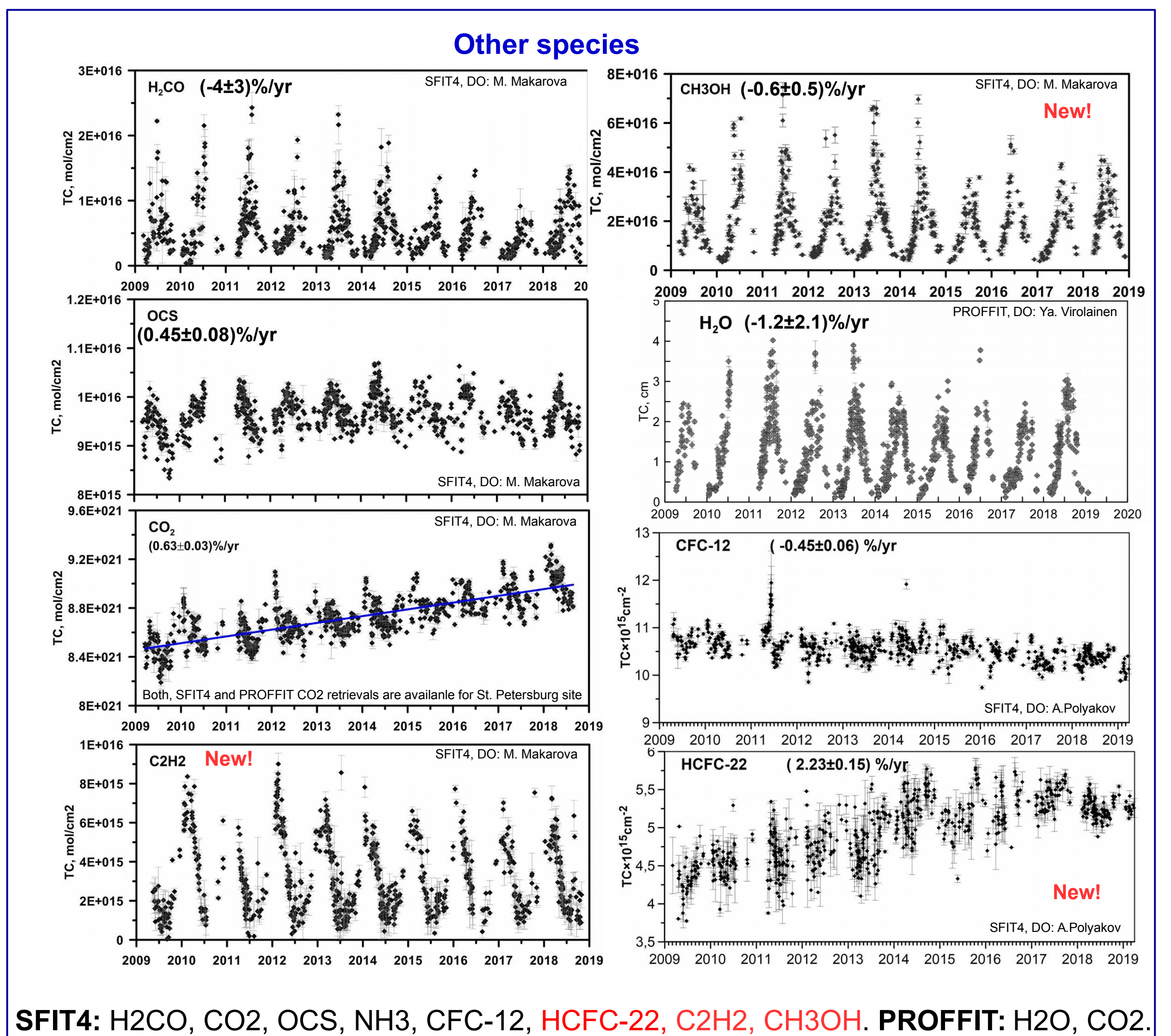
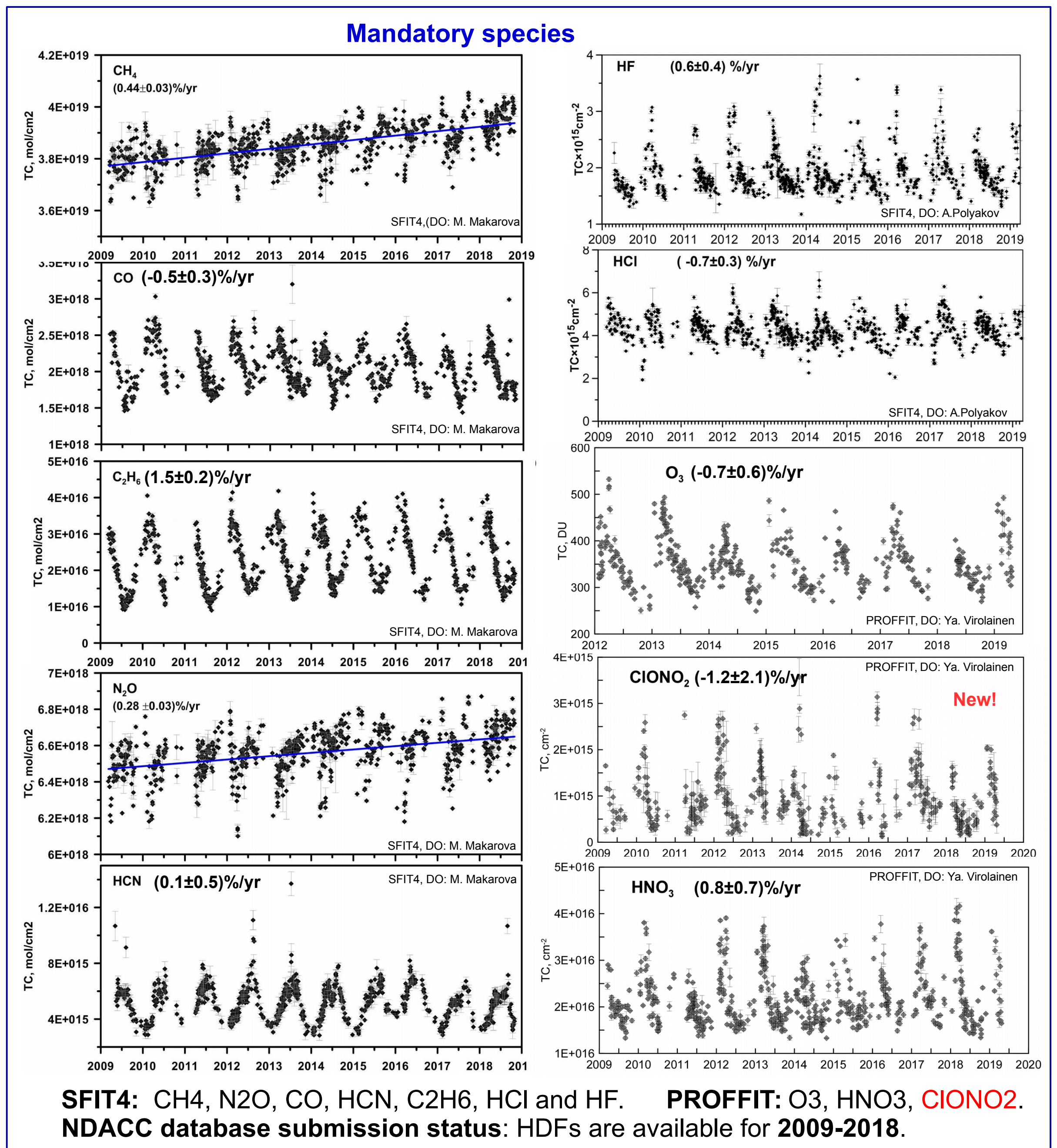
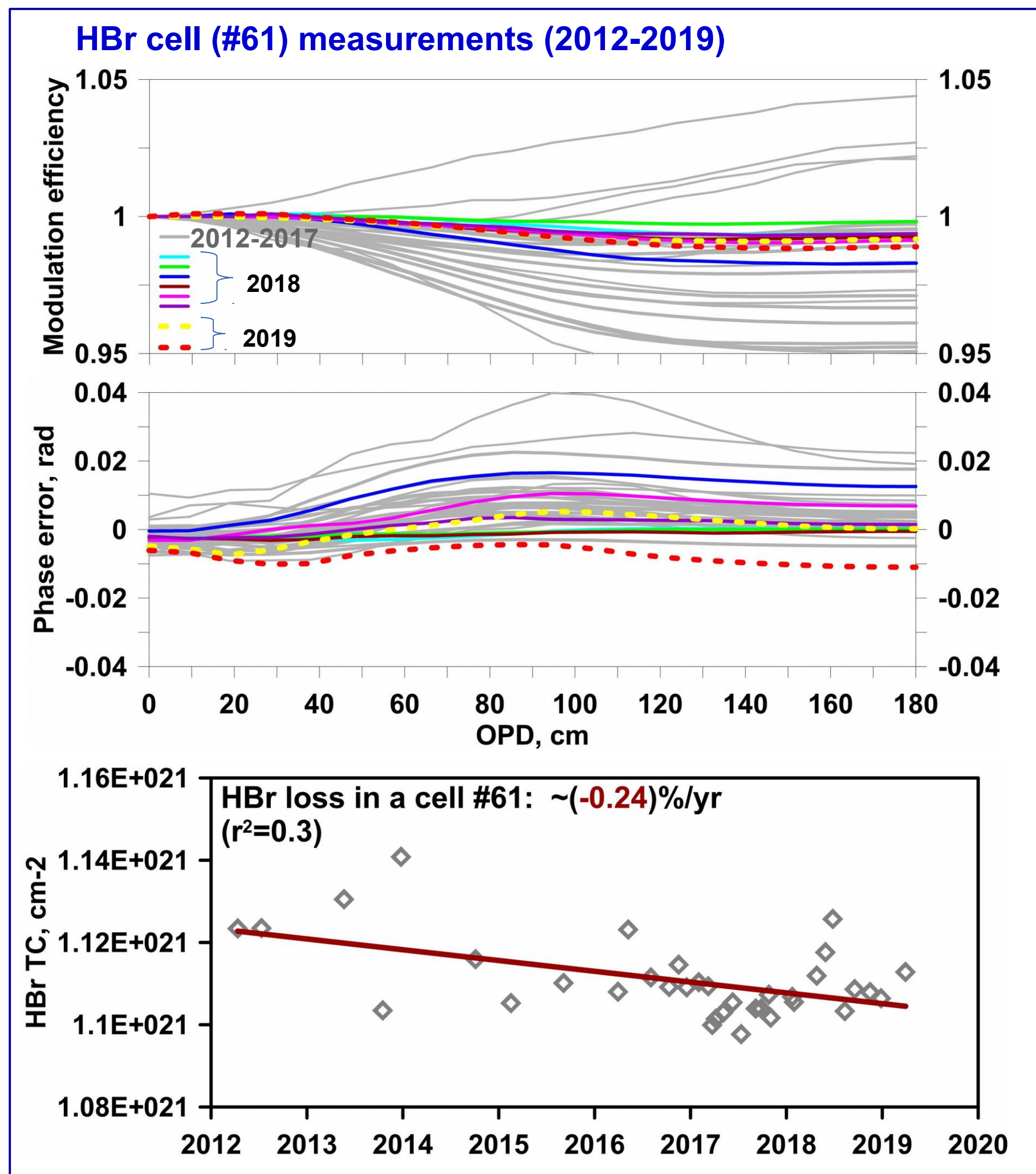
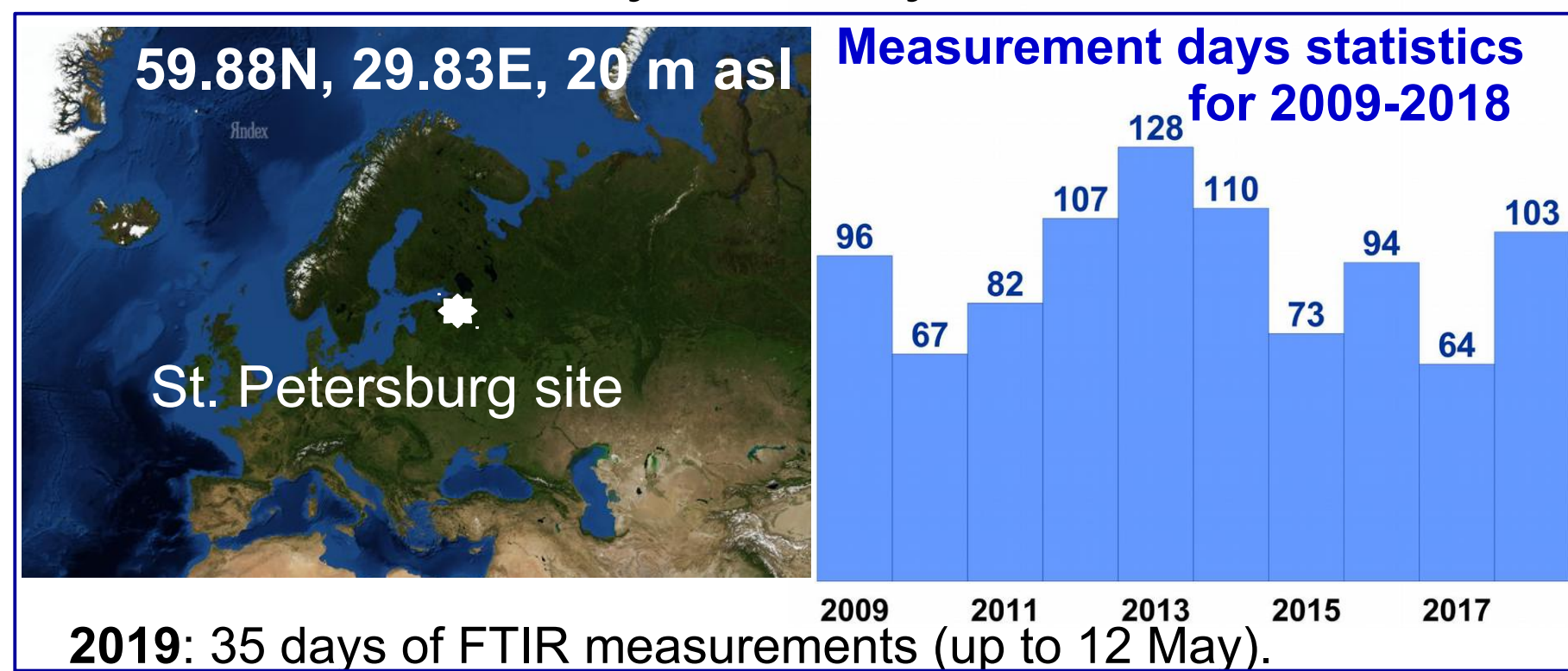
# St. Petersburg site report (2018-2019)



St. Petersburg State University

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Geomodel Resource Center of SPbU



**Funding status overview (for next 2-3 years)**

Atmospheric Physics Dept. of SPbU has a number of permanent positions provided by the Russian Government. The following six researchers are involved (full/part involvement) into FTIR activity: Maria Makarova, Yana Virolainen, Hamud Imkhasin, Alexander Polyakov, Yuriy Timofeyev, Anatoly Poberovskii.

**Acknowledgements:** The work has been supported by the Russian Foundation for Basic Research, projects # 18-05-00011 and 18-05-00426. Experimental data have been acquired using the observational facilities of the "Geomodel" Resource Center of SPbU Research Park.

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**Ongoing projects**

- VERIFY: Observation-based system for monitoring and verification of greenhouse gases. Project of EU HORIZON2020 – 2018-2021 (participation);
- Ongoing validation campaign (O<sub>3</sub>, H<sub>2</sub>O, CH<sub>4</sub>, etc.) of Russian satellite instrument IKFS-2 (IR Fourier transform spectrometer installed on Meteor-2 satellite) – 2016-2019 (participation);
- CAMS27 Project - 2018-2021 (participation);
- TROPOMI validation campaign - H<sub>2</sub>CO FTIR data – 2018-2019 (participation);
- Russian Foundation for Basic Research Project #18-05-00011 (Study of reactive gases in the atmosphere by means of FTIR spectrometry) – 2018-2020 (leading);
- Russian Foundation for Basic Research Project # 18-05-00426 (Analysis of space-time variability in the content of halogen-containing atmospheric gases on the basis of measurement and modeling data) – 2018-2020 (leading).

**Publications**

Cherepova M.V., S.P. Smyshlyaev, M.V. Makarova, Yu.M. Timofeyev, A.V. Poberovskiy, and G.M. Shved, 2018: A Study of the Column Methane Short-Term Variability in the Atmosphere on a Regional Scale. *Izvestiya, Atmospheric and Oceanic Physics*, 54, 5, 558–569. DOI: 10.1134/S0001433818060038.

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Vigouroux, C., Bauer Aquino, C. A., Bauwens, M., Becker, C., Blumenstock, T., De Maziere, M., Garcia, O., Grutter, M., Guarin, C., Hannigan, J., Hase, F., Jones, N., Kivi, R., Koshelev, D., Langerock, B., Lutsch, E., Makarova, M., Metzger, J.-M., Muller, J.-F., Notholt, J., Ortega, I., Palm, M., Paton-Walsh, C., Poberovskii, A., Rettinger, M., Robinson, J., Smale, D., Stavrakou, T., Stremme, W., Strong, K., Sussmann, R., Te, Y., and Toon, G. 2018: NDACC harmonized formaldehyde time-series from 21 FTIR stations covering a wide range of column abundances. *Atmos. Meas. Tech.*, 11, 5049–5073, <https://doi.org/10.5194/amt-11-5049-2018>.

Polyakov A.V., Ya.A. Virolainen, M.V. Makarova, 2019: Technique for Inverting Transmission Spectra to Measure Freon Concentration. *Journal of Applied Spectroscopy*, 85, 6, 1085–1093. DOI:10.1007/S10812-019-00763y.