



Laboratory
of physico-chemical
analytical methods



National Research

**Tomsk
State
University**

Analytical chemistry research lab



Fundamental
and applied research



Development of test
methods



Chemical analysis



Testing of chemical
products and APIs



Education

49 Arkadiy Ivanov street (6th building of TSU, Rm. 012)
634028, Tomsk, Russia

lpcma.tsu@gmail.com

lpcma.tsu.ru

Group of liquid chromatography and mass spectrometry

Identification, quantitative analysis and separation

- Liquid chromatography (HPLC)
- Liquid chromatography - mass spectrometry (QQQ, QTOF)
- Gel permeation chromatography
- Semi preparative liquid chromatography
- Thin-layer chromatography

Group of gas chromatography and mass spectrometry

Identification and quantitative analysis

- Gas chromatography
- Gas chromatography - mass spectrometry (Q)

Spectroscopy group

Identification, determination of structure

- NMR-spectroscopy
- UV-VIS spectroscopy

Elemental analysis group

Determination of elemental composition

- CHNS(O)-analysis
- Microwave plasma - atomic emission spectroscopy

Thermal analysis group

The study of the thermal properties and phase transitions

- Simultaneous thermal analysis (DSC + TG + MS)

Chemical analysis group

Quantitative analysis, determination of physico-chemical properties

- Titration (potentiometric, visual)
- KF Titration (coulometric, potentiometric)
- pH/Ion-metry
- Determination of the melting/boiling temperature by capillary method
- Refractometry
- Polarimetry
- Spectrophotometry
- Determination of sulfated ash, dry residue
- Determination of density of liquid products
- Determination of the corrosion rate of metals and alloys in the liquid medium