

Olga Yu. Konovalova

Born

1981, Kharkiv.

Education

1998–2003 – Student of Kharkiv State University (now – V.N.Karazin Kharkiv National University),

2002 – B. Sc. in analytical chemistry and chemical metrology,

2003 – M. Sc. in analytical chemistry and chemical metrology,

2003–2006 – post-graduate student (V.N. Karazin Kharkiv National University),

2009 – Ph. D. in analytical chemistry (scientific adviser – Prof. Lidia P. Loginova).



Academic title

2021 – Associate Professor of the Department of Chemical Metrology of V.N. Karazin Kharkiv National University.

Positions

Since 2015 – Associate Professor of the Department of Chemical Metrology of V.N. Karazin Kharkiv National University,

2013–2015 – Senior Lecturer of the Department of Chemical Metrology of V.N. Karazin Kharkiv National University,

2009–2013 – Researcher, Department of Chemical Metrology of V.N. Karazin Kharkiv National University,

2006–2009 – Engineer, Department of Chemical Metrology of V.N. Karazin Kharkiv National University.

Affiliation and contacts

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Research interests

TLC; GC-MS; LC; sol-gel synthesis of silica monoliths promising for chromatography; gel electrophoresis; optical sensors on base of solidified gelatin gel; pharmaceutical and food analysis.

Bachelor and master thesis advisement

More than 30.

Probation

SSI “STC “Institute for single crystals of NAS of Ukraine”, Department of Technology of Organic Compounds, GC-MS (Ukraine, Kharkiv, 2018).

Computational experience

Experienced user of operation system Windows: Microsoft Word, Microsoft Excel and other.

Experienced user of calculation programs: STATISTICA, OriginPro, HyperChem.

Selected publications

1. Nadezhda Repina, Olga Konovalova, Denis Kalinin, Daria Edamenko. Thin-layer chromatographic separation of a number of bile acids with mobile phases based on surfactants // JPC – Journal of Planar Chromatography – Modern TLC. 2020. Vol. 33. P. 271-279. <https://doi.org/10.1007/s00764-020-00034-z>
2. N.O. Leonova, **O.Yu. Konovalova**, O.I. Yurchenko. Analytical Chemistry. Qualitative and Quantitative analysis. Training manual. Kharkiv: V.N. Karazin KhNU, 2020. – 65 p.
3. D.V. Kalinin, **O.Yu. Konovalova**, M.N. Doyarenko. The estimation of possibility of stearic and oleic acids' TLC-separation with eluents containing surfactants. Kharkiv University Bulletin, Chemical Series. – 2018, Vol. 30, P. 50-57. <https://doi.org/10.26565/2220-637X-2018-30-05>
4. **Olga Yu. Konovalova**, Elena A. Reshetnyak, Tatiana B. Pochinok, Polina V. Anisimovich, Nataliya A. Nikitina, Nataliya V. Ivchenko. Solvatochromic and protolytic properties of the indicators in the solidified gelatin gel medium. Colloids Surf. A. – 2017, Vol. 529, P. 26-32. <https://doi.org/10.1016/j.colsurfa.2017.05.035>
5. O.I. Yurchenko, N.A.Nikitina, **O.Yu. Konovalova**. Chemical and metrological support in the extraction of hydrocarbons. Kharkov: Folio, 2015. – 222 p.
6. O.I. Yurchenko, N.A.Nikitina, **O.Yu. Konovalova**. Chemical and metrological support in the extraction of hydrocarbons. Training manual. Kharkov: Folio, 2015. – 93 p.
7. **O.Yu. Konovalova**, V.V. Timchenko, N.A. Nikitina. Separation and determination of food dyes E 110 and E 122 by gel electrophoresis. Kharkiv University Bulletin, Chemical Series. – 2014, Vol. 1123, P. 61-72.
8. Anastasiya M. Frolova, **Olga Yu. Konovalova**, Lidia P. Loginova, Alena V. Bulgakova, Alexander P. Boichenko. Thin-layer chromatographic plates with monolithic layer of silica: Production, physical-chemical characteristics, separation capabilities. J. Sep. Sci. – 2011, Vol. 34, № 16-17, P. 2352-2361. <https://doi.org/10.1002/jssc.201100178>
9. A.P. Boichenko, A.M. Frolova, **O. Yu. Konovalova**, L.P. Loginova. Optimization of sol-gel synthesis conditions for producing of silica monoliths promising for chromatography: sorption kinetics and mechanical stability. Functional Materials. – 2010, Vol. 17, № 4, P. 543-548. <http://dspace.nbu.gov.ua/handle/123456789/135227>
10. **O.Yu. Konovalova**, L.P. Loginova, A.P. Boichenko, A.M. Frolova. The method of plates creation with ultrathin layer of sorbent. Utility model patent 53670 Ukraine. - № u 2010 05232; statement 29.04.2010; publc. 11.10.2010, Newsletter. № 19.
11. A.M. Frolova, **O.Yu. Konovalova**, L.P. Loginova, A.P. Boichenko. Sol-gel synthesis of monolithes layers and their application in thin-layer chromatpgraphy. Chemistry, Physics and technology of surface. – 2010, Vol. 1, issue 4, P. 423-430.
12. Lidia P. Loginova, **Olga Yu. Konovalova**. Test films for test-determinations on the base of reagents, immobilized in gelatinous gel. Talanta. – 2008, Vol. 77, №2, P. 915-923. <https://doi.org/10.1016/j.talanta.2008.07.051>
13. **O. Yu. Konovalova**, L.P. Loginova. The features of indicatory reaction on primary aromatic amines in gelatinous film. Methods Objects Chem. Anal. – 2008, Vol. 3, № 2, P. 147-156.

Main grants and projects

1. Determinations, theoretical estimates and application in chemical analysis of the characteristics of organic compounds hydrophobicity; Ministry of Education of Ukraine; Dates: 0104U000662; (Investigator).
2. Management of chemical equilibriums in heterogeneous and microheterogeneous environments those are promising for test and hybrid methods of analysis; Ministry of Education of Ukraine; Dates: 0103U004212; (Investigator).
3. Modernization of scientific and instrumental complex for solving chemical-metrological problems in the analysis of multicomponent systems of the Department of Chemical Metrology; Foundation for Development and Modernization of Educational and Scientific Equipment of V.N. Karazin Kharkiv National University; Dates: 30-20 (2019-2020); (Head).

Used methods of experimental work

Chromatographic techniques (TLC, GC, HPLC),

Mass-spectroscopy (GC-MS),
Potentiometry,
UV-VIS electronic spectroscopy,
Electrophoresis.

Educational courses

1. **Modern methods of chromatography and electrophoresis** (full-time students and extramural students of 5th year, chemical faculty) – lectures, laboratory works (*in Ukrainian*).
2. **Chemical and metrological support in the extraction of hydrocarbons** (full-time students of 5th year, chemical, ecological and geology-geographic faculties) – lectures, laboratory works (*in Ukrainian*).
3. **Analytical Chemistry** (full-time students of 3th year, chemical faculty and full-time students of 1th year, biological faculty) – lectures, laboratory works (*in Ukrainian*).
4. **Medical Chemistry** (full-time foreign students of 1st year, medical faculty) – seminars, laboratory works (*in English*).
5. **Medical Chemistry** (full-time foreign students of 1st year, medical faculty) – seminars, laboratory works (*in Ukrainian*).

Language

Ukrainian (native),
Russian (native),
English (upper-intermediate, Certificate 18D73F714DP09).

Family status

Married, has a son.

June, 2022