



**Marina Rukhadze**

**Associate Professor**

**Physical Chemistry**

e-mail: [marina\\_rukhadze@yahoo.com](mailto:marina_rukhadze@yahoo.com)

[marina.rukhadze@tsu.ge](mailto:marina.rukhadze@tsu.ge)

Phone (mobile): +995 599 19 75 25

### **Education:**

**1979** - Tbilisi State University Diploma in Chemistry (Physical Chemistry)

G-I, N170614, Tbilisi State University.

**1989** - PhD in Chemistry (Analytical Chemistry), XM N 021349, Tbilisi State University

**1996** - Scientific-pedagogical title of Docent, certificate N 000519;

**1999** - Thesis for Doctor of Science in Chemistry (Physical Chemistry),

Diploma of a Doctor of Sciences N 000882, Tbilisi State University.

**2002** - Scientific-pedagogical title of Professor, certificate N 0000259

**Teaching Courses:** Colloid Chemistry, Physical-Chemical Methods of Analysis  
Chromatography, Physical Chemistry of Biosystems

**Research Experience:** Supervisor of eight PhD students: M. Sebiskveradze (1998), M. Rogava (1998), S. Tsagareli (2000), M. Gonashvili (2004), M.Kutkhashvili (2004), N. Kokiashvili (2004), T. Makharadze (2005), T.Butkhuzi (2015).

**Research interests:** Reverse Micelles, Confined Water, Surfactants, Biosurfactants, Cloud-Point Extraction, Microemulsion Liquid Chromatography, Microemulsion Drug Delivery, Nanoparticles.

**Awards:** Education Ministry Award and Diploma for series of papers "Chromatographic methods for the determination of antiepileptic drugs"(1990).

Petre Melikishvili scientific award and medal for series of papers "Optimization of chromatographic and extraction processes"(2002).

Medal of Georgian Society of Science History for the Achievements in Science (2006).

### **Selected Publications**

1. M. Kurtanidze, T. Butkhuzi, **M. Rukhadze**, N. Kokiashvili, J. Marcus, W. Kunz and K. Sigua. Study of structural changes of water confined in Brij-30 reverse micelles: Revealing influence of ionic additives. **Colloids and Surfaces A: Physicochem. Eng. Aspects**, 2017, v.519, 98-105.

2. T. Butkhuzi, M. Kurtanidze, R. Chaladze, M. Gvaramia, **M. Rukhadze**, G. Bezarashvili, K. Sigua, P. Pradhan. Investigation of influence of nonionic additives on structural changes of water droplets encapsulated in AOT reverse micelles by instrumental methods. **Colloids and Surfaces A: Physicochem. Eng. Aspects**, **460** (2014) 123–129.
3. T. Butkhuzi, R. Chaladze, N. Lominadze, **M. Rukhadze**, M. Gvaramia, M. Kurtanidze, G. Bezarashvili, K. Sigua. Study of influence of ionic additives to AOT reverse microemulsions by liquid chromatography, IR and UV-visible spectroscopy. **Colloids and Surfaces A: Physicochem. Eng. Aspects**, **442** (2014) 98-104.
4. Rusudan Chaladze, Manuchar Gvaramia, Manoni Kurtanidze, George Bezarashvili and **Marina Rukhadze**. Study of Influence of Salts Additives to Mixed Reverse Micelles via Reverse Microemulsion Chromatography and UV-visible spectroscopy. **Chemistry Letters**, 2012, Vol. 41 No. 10, 1035-1037
5. N. Kokiashvili, M. Alexishvili, M. Gonashvili, N. Okujava, G. Titvinidze, **M. Rukhadze**. Revealing of pharmacokinetic peculiarities of surface active drug promethazine in its interaction with caffeine in rabbits. **Colloids and Surfaces A: Physicochem. Eng. Aspects** **413** (2012) 169– 173 .
8. **M. Rukhadze**, M. Wotocek, S. Kuhn, R. Hempelmann. Influence of Anions of Hofmeister Series on Size-Controlling Synthesis of ZnS Nanoparticles via Reverse Microemulsion System. **Progress in colloid and polymer science (Special issue UK colloids 2011)**, vol.139, 2012, 120 p.
9. **Marina Rukhadze**, Diana Dzidziguri, Nana Giorgobiani and Salome Kerkenjia. Imitation of biomembranes on the basis of cholic acid and endogenic thermostable protein complex in biopartitioning micellar chromatography. **Biomedical Chromatography**, 2011, v.25, Issue 12, p.1364-1368.
10. **Marina Rukhadze**, Nino Lominadze, Levan Akhalkatsi and Manuchar Gvaramia. Study of chromatographic characteristics of inorganic analytes in biopartitioning micellar chromatography with ion-pair additives. **Biomedical Chromatography**, 2010; **24**: 1338–1341
11. N. Giorgobiani, D. Dzidziguri, **M. Rukhadze**, L. Rusishvili, G. Tumanishvili. Possible role of endogenous growth inhibitors in regeneration of organs: searching for new approach. **Cell Biology International**, v.29, issue 12, 2005, p.1047-1049
12. **M. Rukhadze**, S. Tsagareli, N. Sidamonidze and V. Meyer. Cloud-Point Extraction for the Determination of the Free Fraction of Antiepileptic Drugs in Blood Plasma and Saliva. **Analytical Biochemistry**, 2000, v. 287, p. 279-283.
13. **M. Rukhadze**, G. Bezarashvili, M. Sebiskveradze, V. Meyer. Separation of Barbiturates in Micellar Liquid Chromatography by Means of Matematical Design of Second Order. **J. Chromatography, A**, 1998, v. 805, p.45-53.
14. **M. Rukhadze**, G. Bezarashvili, M. Sebiskveradze, V. Meyer. Separation of Barbiturates in Micellar Liquid Chromatography by Means of Multifactor Design. **Analytica Chimica Acta**, 1997, v. 356, p. 19-25.
15. M. Alexishvili, **M. Rukhadze**, V. Okujava. Simultaneous determination of carbamazepine and carbamazepine 10, 11 epoxide by RP HPLC: Study of pharmacokinetics of carbamazepine in Volunteer. **Biomedical Chromatography**, 1997, v. 11, p. 36-41.