The 6-th Annual Symposium of the Chair of Physical and Analytical Chemistry at Iv. Javakhishvili Tbilisi State University, December 28-29, 2016, Tbilisi, Georgia

(Lecture room 115, Building No. 1, TSU, Chavchavadze Ave 1, Tbilisi)

December 28, 2016

10.00-10.05 **Opening of the symposium**

10.05-10.10 Welcome address by the Vice-Rector of Tbilisi State University **Prof. Mikheil Chkhenkeli**

10.10-10.15 Welcome address by the Dean of the Faculty of Exact and Natural Sciences of Tbilisi State University **Prof. Ramaz Khomeriki**

10.15-11.00 **Alessandro Volonterio** (Politecnico di Milano, Milan, Italy)

Development of a new multicomponent domino process for the synthesis of compounds of biological interest

11.00-11.45 **Sibel Ozkan** (Ankara University, Ankara, Turkey)

The importance of method validation in pharmaceutical and biomedical analysis

11.45-12.15 **Vakhtang Barbakadze** (I. Kutateladze Institute of Pharmacochemistry, Georgian Medical University, Tbilisi, Georgia)

Methylated poly[3-(3,4-dihydroxyphenyl)-glyceric Acid] from anchusa italica and symphytum grandiflorum

12.15-12.45 **Giorgi Jibuti** (Tbilisi State University, Tbilisi, Georgia)

Evaluation of atmospheric condition in Tbilisi and surrounding area

12.45-13.00 **Symposium Photos**

13.00-13.30 **Opening of new Laboratory of Instrumental Analysis at the Chair of Physical and Analytical Chemistry, Tbilisi State University**

13.30-15.00 **Lunch Break**

15.00-15.30 **Marcella Chiari** (Politecnico di Milano, Milan, Italy)

High sensitive microarray and its applications

15.30-16.00 **Bengi Uslu** (Ankara University, Ankara, Turkey)

Nanomaterial-based electrochemical sensors and analysis of pharmaceuticals

16.00-16.20 **Giorgi Bezarashvili** (Tbilisi State University, Tbilisi, Georgia)

Heterogenous inhibition of flame propagation

16.20-16.40 **Djumber Kereselidze** (Tbilisi State University, Tbilisi, Georgia) Theoretical

Investigations of the conditions of the propensity of amino acids for formation a peptide bond.

16.40-17.00 **Antonina Mskhiladze** (Sukhumi State University, Tbilisi, Georgia)

Effect of acidic and basic additives on high-performance liquid chromatographic separation of enantiomers of selected b-blockers on polysaccharide-based chiral columns

17.00-17.30 **Mehmet Gumustas** (Ankara University, Ankara, Turkey)

High-performance liquid chromatographic separation of enantiomers of some β-agonists by using polysaccharide-based chiral columns

17.30-20.00 **Symposium Dinner**

December 29, 2016

09.00-09.15 BS students **Mariam Maisuradze** and **Gvantsa Sheklashvili** (Tbilisi State University, Tbilisi, Georgia)

Enantioseparation of chiral sulfoxides using polysaccharide-based chiral columns and polar organic mobile phases

09.15-09.30 BS student **Giorgi Kobidze** (Tbilisi State University, Tbilisi, Georgia)

High-performance liquid chromatographic separation of enantiomers of acidic chiral compounds with novel chiral column Chiralpak IG and polar organic mobile phases

09.30-09.45 BS student **Aluda Chelidze** (Tbilisi State University, Tbilisi, Georgia)

High-performance liquid chromatographic separation of enantiomers of basic chiral compounds with novel chiral column Chiralpak IG and methanol as a mobile phase

09.45-10.00 BS student **Levan Samarguliani** (Tbilisi State University, Tbilisi, Georgia)

High-performance liquid chromatographic separation of enantiomers of basic chiral compounds with novel chiral column Chiralpak IG and acetonitrile as a mobile phase

10.00-10.15 BS student **Tamar Khatiashvili** (Tbilisi State University, Tbilisi, Georgia)

Enantioselective adsorption of 2-(benzylsulfinyl)-benzamide on cellulose tris(4-chloro-3-methylphenylcarbamate) polymer and cellulose tris(4-chloro-3-methylphenylcarbamate) based chiral stationary phase

10.15-10.30 BS student **Salome Otiashvili** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers of weak chiral acids in high-performance liquid chromatography by using polysaccharide-based chiral columns and aqueous-organic mobile phases

10.30-10.45 BS student **Nana Khundadze** (Tbilisi State University, Tbilisi, Georgia)

Comparative separation of enantiomers of 2-benzylsulfinylbenzamide and 2-benzylsulfinyl-N,N-dimethylbenzamide on superficially porous and totally porous polysaccharide-based chiral columns in high-performance liquid chromatography

10.45-11.00 BS student **Salome Pantsulaia** (Tbilisi State University, Tbilisi, Georgia)

Comparative separation of enantiomers of 2-(3-bromo-benzylsulfinylbenzamide) and 2-(4-methylbenzylsulfinylbenzamide) on superficially porous and totally porous polysaccharide-based chiral columns in high-performance liquid chromatography

11.00-11.15 MS student **Mari-Luisa Konjaria** (Tbilisi State University, Tbilisi, Georgia)

Separation of chiral sulfoxides on chloro-substituted chiral selectors in High performance supercritical fluid chromatography and Abraham descriptors.

11.15-11.30 MS students **Beka Bedeladze** and **Papuna Navdarashvili** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers of basic and acidic chiral analytes on amylose phenylcarbamate-based chiral columns

11.30-11.45 MS student **Lia Bezhitashvili** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers of chiral sulfoxides on novel core-shell type polysaccharide-based chiral column by using acetonitrile as a mobile phase

11.45-12.00 MS student **Natia Shashviashvili** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers of chiral sulfoxides with methyl-and chloro-methyl-substitued tris-phenylcarbamate of cellulose as chiral selectors in high-performance liquid chromatography

12.00-12.15 MS student **Anna Bardavelidze** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers of chiral sulfoxides on novel core-shell type polysaccharide-based chiral column by using methanol as a mobile phase

12.15-12.30 MS student **Anna Gogolashvili** (Tbilisi State University, Tbilisi, Georgia)

Separation of enilconazole enantiomers in capillary electrophoresis and study of enantioseparation mechanisms by using nuclear magnetic resonance spectroscopy

12.30-12.45 MS student **Elene Sordia** (Tbilisi State University, Tbilisi, Georgia)

Enantioseparation of novel basic chiral agrochemicals with polysaccharide-based chiral stationary phases in high-performance liquid chromatography

12.45-13.00 MS student **Tiniko Elbaqidze** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers of novel chiral sulfoxides in high-performance liquid chromatography on polysaccharide-based chiral columns by using n-hexane/ethanol as a mobile phase

13.00-14.00 **Lunch Break**

14.00-14.15 MS student **Nino Zaqashvili** (Tbilisi State University, Tbilisi, Georgia)

Enantioseparation of selected chiral basic drugs with polysaccharide-based chiral selectors and aqueous-organic mobile phases in high-performance liquid chromatography

14.15-14.30 MS student **Elene Tatunashvili** (Tbilisi State University, Tbilisi, Georgia)

Separation of clenpenterol enantiomers in capillary electrophoresis and study of enantioseparation mechanisms by using nuclear magnetic resonance spectroscopy

14.30-14.45 PhD student **Eka Tsutsqiridze** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers on novel Lux Cellulose-5 chiral column in high-performance liquid chromatography

14.45-15.00 PhD students **Nino Beridze** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers on novel covalently immobilized amylose-3,5-dimethylphenylcarbamate-based chiral column in high-performance liquid chromatography

15.00-15.15 PhD student **Qetevan Kharaishvili** (Tbilisi State University, Tbilisi, Georgia)

Further proof to the utility of polysaccharide-based chiral selectors in combination with superficially porous silica particles as effective chiral stationary phases for separation of enantiomers in high-performance liquid chromatography

15.15-15.30 PhD student **Nino Ghibradze** (Tbilisi State University, Tbilisi, Georgia)

Enantioseparation of FMOC amino acids with polysaccharide-based chiral stationary phases and aqueous-organic eluents in high-performance liquid chromatography

15.30-15.45 PhD student **Zoia Shedania** (Tbilisi State University, Tbilisi, Georgia)

Separation of enantiomers of chiral sulfoxides in high-performance liquid chromatography with polysaccharide-based chiral selectors and aqueous methanol as a mobile phase

15.45-16.00 PhD student **Rusudan Kakava** (Tbilisi State University, Tbilisi, Georgia)

Synthesis of novel chiral sulfoxides and their enantioseparation in high-performance liquid chromatography

16.10-16.30 **Symposium closing**