

## CV

### ბეჟან ჭანკვეტაძე

1. 13 ივნისი, 1957 წ.
2. საქართველო
3. დაოჯახებული. მეუღლე ქეთევან ლომსაძე, შვილები ლაშა 24 წლის, ჯაბა 17 წლის.
4. ბინა: აბასთუმნის ქ. 4, ბინა 28, ტელ: 2348824. სამსახური: ივ. ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტის ზუსტ და საბუნებისმეტყველო მეცნიერებათა ფაკულტეტი, ფიზიკური და ანალიზური ქიმიის კათედრა, ჭავჭავაძის გამზ. 3, 0179 თბილისი. ტელ: 2290648. [jpba\\_bezhan@yahoo.com](mailto:jpba_bezhan@yahoo.com)
5. ივ. ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტის ქიმიის ფაკულტეტი ფიზიკური ქიმიის სპეციალობით, წარჩინებით, 1979 წ.
6. ქიმიის მეცნიერებათა კანდიდატის სამეცნიერო ხარისხი: სსრკ მეცნიერებათა აკადემიის ნ. ზელინსკის სახელობის ორგანული ქიმიის ინსტიტუტში, სპეციალობა ფიზიკური ქიმია, სპეციალიზაცია ქიმიური კინეტიკა და კატალიზი, მოსკოვი, 1985 წ.  
ქიმიის მეცნიერებათა დოქტორის სამეცნიერო ხარისხი: ივ. ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტის ქიმიის ფაკულტეტი, ფიზიკური ქიმიის სპეციალობით, 1998 წ. პროფესორი.
7. 1980-1984 წწ საქართველოს ზოოვეტერინარული ინსტიტუტის ლაბორანტი, 1984-1985 წწ ივ. ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტის ფიზიკური ქიმიის კათედრის ლაბორანტი, 1985-1998 იმავე კათედრის დოცენტი, 1998-2006 წლებში იმავე კათედრის პროფესორი, 2006-2012 წლებში იმავე უნივერსიტეტის ფიზიკური და ანალიზური ქიმიის ქვემიმართულების სრული პროფესორი და ქვემიმართულების ხელმძღვანელი, 2012 წლიდანსრული პროფესორი და ფიზიკური და ანალიზური ქიმიის კათედრის გამგე (ქვემიმართულება გადაკეთდა კათედრად). 1991-2002 წლებში ხანგრძლივი მივლინებებით ვმუშაობდი მიუნსტერის (გერმანია) უნივერსიტეტის ფარმაცევტული და სამედიცინო ქიმიის ინსტიტუტში მეცნიერ მუშაკად და მიწვეულ პროფესორად, ხოლო 1992-2005 წლებში ასევე ხანგრძლივი მივლინებებით ნაგოიას (იაპონია) უნივერსიტეტის ტექნოლოგიური ფაკულტეტის ქიმიის განყოფილებაში მეცნიერ-მუშაკად.  
2002-2007 წლებში მიწვეული ვიყავი ლაბორატორია Sepaserve GmbH-ს დირექტორად, ხოლო 2007 წლიდან დღემდე ლაბორატორია Enantiosep GmbH-ის დირექტორად (ორივემიუნტერი, გერმანია). 2007 წლიდან დღემდე ვმუშაობ ამერიკული კომპანია Phenomenex-ის (ტორანსი,

კალიფორნია, აშშ) კონსულტანტად, ხოლო 2005 წლიდან დღემდე ჟურნალის Journal of Pharmaceutical and Biomedical Analysis (გამომცემლობა ელზევიერი, ამსტერდამი, ჰოლანდია) რედაქტორად.

8. ნივთიერებათადაყოფისმეთოდები (სითხურიქრომატოგრაფია, ნანოქრო-მატოგრაფია, კაპილარულიელექტროფორეზი, კაპილარულიელექტრო-ქრომატოგრაფია), ქირალურიგამოცნობა და მისიმექანიზმები, ქირალურიანალიზი, ფარმაცევტული და ბიოსამედიცინოანალიზი. ახალიმაღალტექნოლოგიურიმასალები.
9. ყოველწლიურადგმონაწილეოთშიგამართულ 10-15 საერთაშორისო კონფერენციასა და სემინარშიროგორცონფერენციისთავჯდომარე, სამეცნიეროკომიტეტისწევრი, სექციისთავჯდომარე, პლენარული, საკვანძო ან ზეპირიმმსსენებელი. მაგალითისათვის ქვემოთ მოტანილია მხელოდ მიმდინარე 2013 წელს უკვე დაგეგმილი ზოგიერთი ღონისძიება (მიწვევები, რომლებზეც უკვე დავთანხმდი):
  - მიკრომასშტაბური ბიოდაყოფების 29-ე საერთაშორისო სიმპოზიუმი, შარლო ტესვილი, ვირჯინია, აშშ, 10-14 მარტი, 2013. მიწვეული მომსენებელი და სამეცნიერო სექციის თავჯდომარე.
  - სემინარები ამერიკულ კომპანია Phenomenex-ზი (ტორანსი, კალიფორნია, აშშ), 14-15 მარტი, 2013.
  - ლექციების სერია დანიაში, შვედეთსა და ფინეთში, 7-14 აპრილი, 2013.
  - სემინარი ლიონში, საფრანგეთი, 25 აპრილი, 2013.
  - ქრომატოგრაფიის გამოყენება ორგანულ ნივთიერებათა კვლევაში, სჩირკი-კატოვიცე, პოლონეთი, 5-7 ივნისი, 2013. მიწვეული მომსენებელი, სამეცნიერო კომიტეტის წევრი და სამეცნიერო სექციის თავჯდომარე.
  - ფარმაცევტული და ბიოსამედიცინოანალიზის 24-ე საერთაშორისო სიმპოზიუმი, ბოლონია, იტალია, 30 ივნისი-3 ივლისი, 2013. მიწვეული მომსენებელი და სამეცნიერო კომიტეტის წევრი.
  - ბალატონის მე-9 სიმპოზიუმი ნივთიერებათა დაყოფის მაღალეფექტურ მეთოდებში, შიოფოკი, უნგრეთი, 4-6 სექტემბერი, 2013. მიწვეული მომსენებელი და სამეცნიერო კომიტეტის წევრი.
  - ნივთიერებათა ელექტრო- და თხევადფაზური დაყოფების მე-20 საერთაშორისო სიმპოზიუმი, ტენერიფე, კანარის კუნძულები, ესპანეთი, 6-9 ოქტომბერი, 2013. მიწვეული მომსენებელი და მუდმივმოქმედი სამეცნიერო კომიტეტის წევრი.

უკანასკნელი 15 წლის განმავლობაში საერთაშორისო კონფერენციებზე და სემინარებზე ჩემი თანაავტორობით წარმოდგენილი იქმ 250-ზე მეტი მოხსენება, აქედან 160-ზე მეტი პირადად ჩემს მიერ პლენარული, საკვანძო ან ზეპირი მოხსენებების სახით (იხილეთ დანართი 1). 2011 წლის 28-31 აგვისტოს თბილისში ჩემი ხელმძღვანელობით

ჩატარდანივთიერებათა ელექტრო- და თხევადფაზური დაყოფების მე-18 საერთაშორისო სიმპოზიუმი, რომელიც მიეძღვნა საქართველოს მეცნიერებათა ეროვნული აკადემიის დაარსების 70-ე წლისთავს. კონფერენციაში მონაწილეობდა 50-მდე ქართველი და 130-ზე მეტი უცხოელი მეცნიერი მსოფლიოს 26 ქვეყნიდან.

10. მიღებული მაქვს (თანაავტორებთან ერთად) ამერიკის შეერთებული შტატების, იაპონიის, გერმანიის, ევროპისა და მსოფლიო პატენტები გამოგონებებზე (იხილეთ დანართი 2). ზოგიერთი ჩემი პატენტის მიხედვით მაღალტექნიკოლოგიურ მასალებს ამზადებს და მთელ მსოფლიოში ჰყიდის ამერიკული კომპანია Phenomenex Inc. (ტორანსი, კალიფორნია, აშშ), იაპონური კომპანია Daicel Chemical Industries (ტოკიო, იაპონია) რამდენიმესხვაკომპანია.

მიღებული მაქვს საქართველოს დენურიკომკავშირის სახელობის პრემიამე ცნიერების დარგში (1988 წ.) და შემდეგი უცხოელისამეცნიეროპრემიები:

1. Journal of Chromatography Top Cited Article Award 2001-2004
2. Journal of Chromatography Top Cited Article Award 2001-2006
3. Journal of Chromatography Top Cited Article Award 2007-2009
4. The Belgian Society of Pharmaceutical Sciences 2006 International Award of Recognition for his outstanding contribution to Pharmaceutical Sciences.

11. 1984 წლიდან ივ. ჯავახიშვილის სახელობის თბილისის სახელმწიფო უნივერსიტეტის ქიმიის ფაკულტეტის/მიმართულების სტუდენტებისათვის ვკითხულობდი ლექციების ციკლს მრავალ საგანში (მოლეკულური სპექტროსკოპია, ნივთიერების აღნაგობა, ქვანტური ქიმია, ნივთიერებათა დაყოფის მეთოდები, ფიზიკური ქიმია-1, ფიზიკური ქიმია-2, ფიზიკური ქიმია-4, ნივთიერებათა დაყოფის მინიატურული მეთოდები, ქრომატოგრაფიული ანალიზი). გამუქებულ საგნებს ამ ჩამონათვალიდან ვკითხულობ ამჟამად იგივე უნივერსიტეტის ბაკალავრიატსა და მაგისტრატურაში. 1996-2002 წლებში მიუნსტერის (გერმანია) უნივერსიტეტის ფარმაცევტული და სამედიცინო ქიმიის ინსტიტუტში ვკითხულობდი სალექციო კურსებს საგნებში: ფიზიკური ქიმია ფარმაცევტებისათვის და ინსტრუმენტული ანალიზი. უკანასკნელ საგანში ვხელმძღვანელობდი აგრეთვე ლაბორატორიულ პრაქტიკუმს. ვხელმძღვანელობდი/ვხელმძღვანელობ მრავალი სადიპლომო/სამაგისტრო და სადოქტორო ნაშრომის შესრულებას თბილისის, მიუნსტერისა (გერმანია) დანაგოას (იაპონია) უნივერსიტეტებში.

12. სხვადასხვა წლებში მიღებული მაქვს ჰაინრიხ ჰერცის (1991, 1993-1995), იაპონიის კულტურული ასოციაციის (1992-1993), იაპონიის მეცნიერების დაფინანსების საზოგადოების (Japan Society for Promotion of Science, JSPS) (1996), გერმანიის კვლევების ასოციაციის (Deutsche Forschungsgemeinschaft, DFG) (1998-2000), UNESCO-ს, Merck Research Laboratories სტიპენდიები, პირადი და კვლევითი გრანტები, 2005-2009 წლებში რუსთაველის

ეროვნული სამეცნიერო ფონდის გრანტები ფუნდამენტური კვლევებისათვის და იგივე ფონდის 2 გრანტი კონფერენციაში მონაწილეობისათვის.

13. სხვადასხვა პერიოდში გახლდით/გახლავართ ამერიკის ქიმიური საზოგადოების წევრი, ნიდერლანდების, ბელგიის, იტალიის, ჩეხეთის, ავსტრალიის და პოლონეთის სახელმწიფო სამეცნიერო საგრანტო კომიტეტების წევრი/რეფერენტი, მრავალი გამომცემლობისა და სამეცნიერო ჟურნალის რეცენზენტი. 2004-2005 წლებში გახლდით საერთაშორისო ჟურნალის Journal of Pharmaceutical and Biomedical Analysis (Elsevier, Amsterdam, The Netherlands) ასოცირებული რეადაქტორი, ხოლო 2005 წლიდან დღემდე გახლავართ იგივე ჟურნალის რედაქტორი. გარდა ამისა, გახლავართ შემდეგი საერთაშორისო ჟურნალების რედკოლეგიის წევრი:
1. Journal of Chromatography A (Elsevier)
  2. Chirality (Wiley& Sons)
  3. Journal of Separation Science (Wiley-VCH)
  4. Electrophoresis (Wiley-VCH)
  5. Current Pharmaceutical Analysis (Bentham)
  6. Current Analytical Chemistry (Bentham)
  7. Current Chromatography (Bentham)
14. გარდა მშობლიური ენისა, ვფლობ ინგლისურ, გერმანულ და რუსულ ენებს.
15. გამოქვეყნებული მაქს 180-ზე მეტი სამეცნიერო ნაშრომი (კონფერენციების თემისების გათვალისწინების გარეშე), 13 პატენტი, 1 მოხვერაფია, 1 წიგნი თანაავტორთან ერთად, 1 წიგნი (როგორც რედაქტორსა და ავტორს) მრავალ ავტორთან ერთად, სამეცნიერო ჟურნალების 15-ზე მეტი თემატური ტომი. ძირითადი ნაშრომების ჩამონათვალი იხილეთ დანართი 3-ის სახით.
16. ნაშრომთა საერთო რაოდენობა კონფერენციების თემისების გათვალისწინებით 400-ზე მეტი. კონფერენციის თემისების გარეშე 180-ზე მეტი. 50 ძირითადი ნაშრომის ჩამონათვალი იხილეთ დანართი 4-ის სახით.

ხელმოწერა:

ბეჟან ჭანკვეტაძე.

თარიღი: 3 მარტი, 2013 წ.

**დანართი 1  
ზეპირი მოხსენებები 1996-2012:**

1. Bezhana Chankvetadze, Recent studies on enantiomer separation mechanisms in aqueous and non-aqueous capillary electrophoresis, Chirality-2012, June 10-13, 2012, Fort Worth, Texas, USA.
2. Bezhana Chankvetadze, Lux Chlorinated Chiral Stationary Phases: Latest Improvement for Liquid-Phase Enantioseparation, Chirality-2012, June 10-13, 2012, Fort Worth, Texas, USA.
3. B. Chankvetadze, Recent developments in enantioselective analysis, XXIII Congresso Nazionale della Divisione di Chimica Analitica, 16-20 September 2012 Isola d'Elba, Italy.
4. Bezhana Chankvetadze, Selected new findings in HPLC separation of enantiomers with polysaccharide-based chiral stationary phases, 29th International Symposium on Chromatography & 18th International Symposium on Separation Sciences, September 9-13, 2012, Torun, Poland.
5. Bezhana Chankvetadze, Selected new developments in enantioseparation of chiral drugs, 10-th International Symposium on Pharmaceutical Sciences, June 26-29, 2012, Ankara, Turkey.
6. Bezhana Chankvetadze, Recent studies on separation mechanism of enantiomers in capillary electrophoresis, 19<sup>th</sup> International Symposium on Electro- and Liquid Phase-separation Techniques (ITP 2012), September 30 to October 3, 2012, Baltimore, MD, USA.
7. Salvatore Fanali, Zeineb Aturki, Giovanni D'Orazio, Anna Rocco, Bezhana Chankvetadze, Nano-LC and CEC for chiral separations using modified polysaccharides coated on core-shell silica particles, 19th International Symposium on Electro- and Liquid Phase-separation Techniques (ITP 2012), September 30 to October 3, 2012, Baltimore, MD, USA.
8. Anne-Catherine Servais, Marianne Fillet, Bezhana Chankvetadze, Jacques Crommen, Comparative enantioseparations of chiral drug compounds with different cyclodextrins in aqueous and non-aqueous CE and study of related selector-selectand interactions by NMR spectroscopy, 19th International Symposium on Electro- and Liquid Phase-separation Techniques (ITP 2012), September 30 to October 3, 2012, Baltimore, MD, USA.
9. Bezhana Chankvetadze, Application of capillary electrophoresis to pharmaceutical and biomedical analysis of chiral drugs, 8th Congress of Pharmaceutical Sciences - University of Sao Paulo – Brazil, Ribeirao Preto, Brasil, August 20-24, 2011.
10. Bezhana Chankvetadze, New effects with new chiral stationary phases for liquid-phase enantioseparation techniques, 14th Beijing Conference and Exhibition on Instrumental Analysis (BCEIA), October 13-15, 2011.
11. Liming Peng, Tivadar Farkas, and Bezhana Chankvetadze, Rational Selection of the Mobile Phase Modifier in Generic Chiral Screening Protocols in Normal Phase Liquid Chromatography with Polysaccharide-based Chiral Stationary Phases, Chirality-2011, 23rd International Symposium on Chiral Discrimination (ISCD 23), Liverpool, UK, July 10-13, 2011.

12. Bezhana Chankvetadze, Selected New Developments in HPLC Separation of Enantiomers by Using Polysaccharide-Based Chiral Stationary Phases, 17th International Symposium on Separation Science, Cluj-Napoca, Romania, September 5-9, 2011.
13. Bezhana Chankvetadze, New Insights on Separation Mechanism of Enantiomers in Aqueous and Non-aqueous Capillary Electrophoresis, 36th International Symposium on High Performance Liquid Phase Separations and Related Techniques – HPLC 2011 Budapest, June 19-23, 2011.
14. Bezhana Chankvetadze, Recent studies for understanding enantiomer separation mechanisms in capillary electrophoresis, 37th International Symposium on High-Performance Liquid Phase Separations and Related Techniques (HPLC 2011 Dalian), Dalian, China, October 8-12, 2011.
15. Bezhana Chankvetadze, Application of capillary electrophoresis to pharmaceutical and biomedical analysis of chiral drugs, IUPAC International Congress on Analytical Sciences (ICAS2011), Kyoto, Japan, May 20-26, 2011.
16. Bezhana Chankvetadze, New Developments in Analytical and Preparative Scale Enantioseparations, 6th International Conference on Separations and Related Techniques (NoSSS-2011) will be held in Riga, on August, 24-27, 2011.
17. Bezhana Chankvetadze, New effects with new chiral stationary phases for liquid-phase enantioseparation techniques, The XXXIVth SYMPOSIUM, ‘Chromatographic methods of investigating the organic compounds’, Katowice – Szczyrk, June 8th – 10th, 2011.
18. Bezhana Chankvetadze, New effects with new chiral stationary phases for liquid-phase enantioseparation techniques, RDPA 2011, 14-th International Meeting on Recent Development in Pharmaceutical Analysis, September 21-24, Pavia, Italy.
19. Antonio Salgado, Bezhana Chankvetadze, Application of NMR spectroscopy in rationalizing the separation of enantiomers by CE. Study of some illustrative examples by CE, NMR and MS, 18-th International Symposium on Electro- and Liquid Phase-separation Techniques, August 28-31, 2011, Tbilisi, Georgia
20. K.S.S. Dossou, P. Chiap, B. Chankvetadze, A.-C. Servais, M. Fillet, J. Crommen, LC enantioseparation of basic pharmaceuticals using chlorine containing cellulose based chiral stationary phases and polar organic mobile phases, RDPA 2011, 14-th International Meeting on Recent Development in Pharmaceutical Analysis, September 21-24, Pavia, Italy.
21. B. Chankvetadze, Enantioselective recognition with cyclodextrins: Recent CE and NMR spectroscopic studies, ISCD-22, 22<sup>nd</sup> International Symposium on Chirality, July 12-15, 2010, Sapporo, Japan
22. B. Chankvetadze, New materials and technologies for enantioseparation of chiral drugs, IMPPS-3, Third International Meeting on Pharmacy and Pharmaceutical Sciences, June 9-12, 2010, Istanbul, Turkey
23. B. Chankvetadze, Application of cyclodextrins as chiral selectors in capillary electrophoresis: Recent studies on enantioseparations and chiral recognition mechanisms, The 33<sup>rd</sup> Symposium on Chromatographic Methods of Investigating Organic Compounds, May 25-27, 2010, Katowice-Szczyrk, Poland
24. A. Hendricks, D. Mangelings, B. Chankvetadze, Y. Vander Heyden, Use of chlorinated polysaccharide-based chiral stationary phases to update generic separation strategies for capillary electrochromatography, The 33<sup>rd</sup> Symposium on Chromatographic Methods of Investigating Organic Compounds, May 25-27, 2010, Katowice-Szczyrk, Poland

25. B. Chankvetadze, Mechanistic aspects of enantioseparations in capillary electrophoresis, The 17-th International Symposium on Capillary Electroseparation Techniques, August 28-September 1, 2010, Baltimore, USA
26. B. Chankvetadze, New Developments in chiral analysis by capillary techniques (CLC, CE, CEC), New Trends in Biomedical and Pharmaceutical Analysis, September 20, Liege, Belgium
27. K. Lomsadze, A. Salgado and B. Chankvetadze, Separation mechanism of some chiral drugs in capillary electrophoresis, 9-th International Symposium on Drug Analysis, September 21-25, Antwerp, Belgium
28. B. Chankvetadze, Mechanistic aspects of enantioseparations of selected chiral drugs in aqueous and non-aqueous capillary electrophoresis, 7<sup>th</sup> International Interdisciplinary Meeting on Bioanalysis (CECE 2010), October 15-17, Pecs, Hungary
29. B. Chankvetadze, Dual Separation Mechanism of Enantiomers in Capillary Electrophoresis, The 34th International Symposium on High Performance Liquid Phase Separations and Related Techniques, Dresden, Germany, June 28-July 2, 2009
30. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, Pittcon 2009, Chicago, IL, USA, March 8-13, 2009
31. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, Bristol-Myers-Squibb, New Brunswick, NJ, USA, March 13, 2009
32. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, Shering-Plough, Kenilworth, NJ, USA, March 16, 2009
33. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, Merck, Raritan, NJ, USA, March 16, 2009
34. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, Shering-Plough, Union, NJ, USA, March 17, 2009
35. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, Astra-Zeneca, Wilmington, DE, USA, March 18, 2009
36. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, Pfizer, Groton, RI, USA, March 19, 2009
37. T. Farkas, L. Peng, S. Jayapalan, B. Chankvetadze, The changing landscape of chiral separations and purifications, 21-st International Symposium on Chirality, Breckenridge, CO, USA, July 12-15, 2009
38. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, The XXXII Symposium "Chromatographic Methods of Investigating the Organic Compounds, Katowice-Szczyrk, Poland, June 3-5, 2009
39. B. Chankvetadze, Separation mechanism of enantiomers in capillary electrophoresis with aqueous and non-aqueous buffers, 5<sup>th</sup> NoSSS Symposium on Separations and Related Techniques, which will be held in Tallinn , on August 26-29, 2009
40. B. Chankvetadze, New Polysaccharide-based Chiral Materials for Liquid Phase Enantioseparation Techniques, 8-th Balaton Symposium on High-Performance Separation Methods, Siofok, Hungary, September 2-4, 2009
41. B. Chankvetadze, New chiral stationary phases for enantioseparation of chiral drugs in nano liquid chromatography and capillary electrochromatography, 13-th International Meeting on Recent Developments in Pharmaceutical Analysis, Milan, Italy, September 9-12, 2009
42. B. Chankvetadze, Mechanistic aspects of enantioseparations in aqueous and non-aqueous capillary electrophoresis, 15-th Latin American Symposium on

Biotechnology, Biomedical, Biopharmaceutical and Industrial Applications of Capillary Electrophoresis and Microchip Technologies, Sevilia, Spain, October 2-6, 2009

43. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation of chiral drugs, 21<sup>st</sup> International Symposium on Pharmaceutical and Biomedical Analysis, Orlando, FL, USA, October 11-14, 2009
44. B. Chankvetadze, New analytical technologies and materials for determination of enantiomeric purity of chiral drugs, The 3rd BBBB Conference on Pharmaceutical Sciences, Antalya, Turkey, 26-28 October, 2009
45. B. Chankvetadze, New polysaccharide-based materials for liquid-phase enantioseparation of chiral drugs, 19<sup>th</sup> International Symposium on Pharmaceutical and Biomedical Analysis, Gdańsk, Poland, June 8-12, 2008
46. B. Chankvetadze, Fundamentals of enantioseparation in capillary electrophoresis, 20-th International Symposium on Chirality, Geneva, Switzerland, July 6-9, 2008
47. B. Chankvetadze, New materials and technologies for miniaturized enantioseparations, 16-th International symposium on Capillary Electroseparation Techniques, Catania, Italy, August-31-September 4, 2008
48. B. Chankvetadze, Z. El Rassi, F. Foret, M.L. Riekkola, Round Table: Where does capillary electrophoresis go? A glance to the future of electromigration techniques,
49. 16-th International symposium on Capillary Electroseparation Techniques, Catania, Italy, August-31-September 4, 2008
50. B. Chankvetadze, Enantioseparation Mechanisms in Capillary Electrophoresis, 8th Asian-Pacific International Symposium on Microscale Separations and Analysis, Kaohsiung, Taiwan, November 2-5, 2008.
51. B. Chankvetadze, Enantioseparation ins Capillary Electrophoresis, Kaohsiung Medical University, Kaohsiung, November 4, 2008
52. B. Chankvetadze, Enantioseparations in Capillary Electrophoresis, Taiwan National University, Taipeh, November 6, 2008
53. B. Chankvetadze. New Polysaccharide-based materials for liquid-phase enantioseparation techniques, Dalian, China, November 29,30, 2008.
54. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, The 33rd International Symposium on High Performance Liquid Phase Separations and Related Techniques, Kyoto, Japan, December 2–5, 2008.
55. B. Chankvetadze, New materials and technologies for liquid-phase enantioseparations, Sumitomo Chemicals, Osaka, Japan, December 8, 2008.
56. B. Chankvetadze, Advanced Polysaccharide Derivatives for Liquid-Phase Enantioseparations, Seminar at Phenomenex Inc., Torrance, CA, USA, July 13, 2007.
57. B. Chankvetadze, Advanced Polysaccharide Derivatives for Liquid-Phase Enantioseparations, Seminar at Merck Research Laboratories, Linden (Raritan), NJ, USA, July 16, 2007.
58. B. Chankvetadze, Advanced Polysaccharide Derivatives for Liquid-Phase Enantioseparations, Seminar at Wyeth Research., Princeton, NJ, USA, July 17, 2007.
59. B. Chankvetadze, Advanced Polysaccharide Derivatives for Liquid-Phase Enantioseparations, Seminar at Bristol-Myers Squibb., Princetone, NJ, USA, July 17, 2007.
60. B. Chankvetadze, K. Lomsadze, L. Chankvetadze, Z. Machabishvili, Application of capillary electrophoresis for studies of enantioselective intermolecular interactions, 19-th International Symposium on Chirality, San Diego, USA, July 8-11, 2007.

61. B. Chankvetadze, New chiral stationary phases for liquid-phase enantioseparation techniques, 31-st International symposium on High Performance Liquid Phase Separations and Related Techniques, HPLC 2007, June 17-21, 2007, Ghent, Belgium.
62. B. Chankvetadze, Recent trends in liquid phase enantioseparation techniques, The XXXI Symposium "Chromatographic Methods of Investigating the Organic Compounds, Katowice-Szczyrk, June 4-6, 2007, Poland.
63. B. Chankvetadze, New polysaccharide-based chiral stationary phases for analytical and preparative scale enantioseparations, Seminar at the School of Pharmacy, Yeditepe University, Istanbul, Turkey, December 4, 2006.
64. B. Chankvetadze, Advanced polysaccharide derivatives for analytical and preparative enantioseparations, Symposium on Advanced Materials and Technologies, Tbilisi, Georgia, May 9-10, 2006.
65. B. Chankvetadze, D. Jishkariani, L. Chankvetadze, N. Tanaka, Application of monolithic chiral stationary phases for enantioseparations in capillary chromatography and electrochromatography, ITP 2006: 15-th International symposium on Capillary Electromigration Techniques, Paris, France, August 28-30, 2006.
66. 11.B. Chankvetadze, Recent developments in enantioseparation of chiral drugs with electrode driven techniques, Analysdagarna, , Göteborg/Gothenburg, Sweden, 12-15 June, 2006.
67. B. Chankvetadze, D. Jishkariani, L. Chankvetadze, C. Yamamoto, M. Kamigaito, Y. Okamoto, Application of monolithic chiral stationary phases for enantioseparations in capillary chromatography and electrochromatography, 18-th International symposium on Chirality, Busan, Korea, June 25-28, 2006.
68. B. Chankvetadze, New monolithic materials for enantioseparation of chiral drugs, Drug Analysis 2006 and 17-th International symposium on Pharmaceutical and Biomedical Analysis, Namur, Belgium, May 16-19, 2006.
69. B. Chankvetadze, Chromatographic enantioseparations with polysaccharide derivatives: from nano- to preparative scale, Chromatographie-Symposium, Düsseldorf 22 September, 2005.
70. B. Chankvetadze, Recent developments in analytical and preparative separation of chiral drugs, 'Seminar at the University of Perugia, Italy, September 29, 2005.
71. B. Chankvetadze, Enantioseparations by using capillary electrophoresis: present state of the art and future trends, Workshop at 17-th International Symposium on Chirality, Parma, Italy, September 11-14, 2005.
72. B. Chankvetadze, Recent developments in miniaturized enantioseparation techniques, 17-th International Symposium on Chirality, Parma, Italy, September 11-14, 2005.
73. B. Chankvetadze, About principal differences between pressure-driven and voltage-driven separation systems, Nagoya (Japan) University Venture Business Laboratory Seminar, August 19, 2005.
74. B. Chankvetadze, . Novel separation techniques and materials for the determination of the enantiomeric purity of chiral drugs, International Symposium on Recent Development in Pharmaceutical Analysis, Rimini, Italy, September 24-27, 2005
75. B. Chankvetadze, .Recent developments in enantioseparation of chiral drugs, Internationaly symposium on analytical chemistry and chemical analysis, Kiev, Ukraine, September 12-18, 2005.

76. B. Chankvetadze, Anwendung von Polysacchariden für die Enantiomerentrennung, Chromatographie-Symposium Tübingen, 23 September, 2004.
77. B. Chankvetadze, Enantiomerentrennung mittels HPLC und CE, Chromatographie-Symposium Münster, 21 September, 2004.
78. B. Chankvetadze, C. Yamamoto; N. Tanaka; Y. Okamoto, Enantioseparations using capillary columns containing monolithic silica modified with cellulose derivatives, 17-th International symposium on microscale separation techniques (HPCE-2004), Innsbruck, Austria, February, 2004.
79. B. Chankvetadze, Recent developments in capillary enantioseparation techniques applied to pharmaceutical and biomedical analysis, 15-th International Symposium on Pharmaceutical and Biomedical Analysis, Florence, Italy, May, 2004.
80. B. Chankvetadze, Enantioseparations on monolithis columns, Nagoya (Japan) University Venture Business Laboratory Seminar, July, 2004.
81. B. Chankvetadze, Recent developments in enantioseparations using capillary electromigration techniques, Workshop at the Dalian Institute of Chemical Physics "Separation and Detection of Biomolecules" Dalian, China, August, 2004.
82. B. Chankvetadze, C. Yamamoto; N. Tanaka; Y. Okamoto, Novel chiral stationary phases for capillary electrochromatography, 14-th International Symposium on capillary Electroseparation Techniques (ITCP-2004), Rome, Italy, September, 2004.
83. B. Chankvetadze, Recent Developments in Enantioseparation of Chiral Drugs, Annual meeting of Spanish separation Science Society (Secyta 2004), Madrid, Spain, October, 2004.
84. B. Chankvetadze, Recent Developments in Enantioseparation of Chiral Drugs, 2-nd International Symposium on Medicinal and Pharmaceutical Chemistry, Antalya, Turkey, October, 2004.
85. B. Chankvetadze, New developments in enantioseparations in capillary chromatography and electrochromatography, Nagoya University Venture Business Laboratory (VBL) seminar, Nagoya, Japan, March, 2003.
86. B. Chankvetadze, Recent Developments in enantioseparations using capillary electromigration techniques, International Symposium: 100 Years of Chromatography, Moscow, Russia, May 13-18, 2003.
87. B. Chankvetadze, Recent Developments in enantioseparations using capillary electromigration techniques, International Symposium on Recent Development in Pharmaceutical Analysis, Cogne, Italy, June 29-July 2, 2003.
88. B. Chankvetadze, Recent development in enantioseparation of chiral drugs, 4-Th International symposium on Pharmaceutical Chemistry, Istanbul, Turkey, 17-19 September, 2003.
89. B. Chankvetadze, Enantioseparations using monolithic chiral columns, Daicel Chemical Industries, Tsukuba Research Center, Tsukuba, Japan, October, 2003.
90. B. Chankvetadze, Selected aspects of enantioseparations in capillary techniques (CE, CLC, CEC), Nagoya University Venture Business Laboratory (VBL) Seminar, Nagoya, Japan, October, 2003.
91. B. Chankvetadze, Recent Developments in enantioseparations using capillary electromigration techniques, Molecular Chirality-2003, Shizuoka, Japan, October 19,20, 2003.
92. B. Chankvetadze, C. Yamamoto, N. Tanaka, Y. Okamoto, Enantioseparations using capillary columns containing monolithic silica modified with polysaccharide, 15<sup>th</sup> International Symposium on Chirality, Shizuoka, Japan, October 20-23, 2003.

93. B. Chankvetadze, Recend developments in analytical and preparative enantioseparation of chiral drugs, Annual Meeting of Korean Pharmaceutical Society, October 18, 2002, Osong, Korea.
94. B. Chankcetadze, New developments in enantioseparations using capillary electromigration techniques, Seminar in Pharmaceutical Institute at Chungnam National University, October 16, 2002, Daejeon, Korea.
95. B. Chankvetadze, New developments in chromatographic enantioseparations, October 16, 2002, RS-Tech Ltd, Daejeon, Korea.
96. B. Chankvetadze, Enantioseparations of chiral drugs using capillary electromigration techniques, Seminar an der Universität Frankfurt, Germany, April 25, 2002.
97. B. Chankvetadze, Enantioseparations using capillary electromigration techniques, 13<sup>th</sup> International symposium on Microscale Separations (HPCE-2002) , Stockholm, April 13-18, 2002.
98. B. Chankvetadze, Enantioseparations in capillary chromatography and electrochromatography, Nagoya University Venture Business Laboratory (VBL) seminar, Nagoya, Japan, September, 2001.
99. B. Chankvetadze, Methodenvalidierung in CEC im Vergleich mit HPLC. GC und CE, Fortbildungskurs über die Einsatz von Kapillarelektrophorese in Arzneimittelanalytik, Braunschweig, Germany, September, 2001
100. B. Chankvetadze, Achirale und chirale Trennungen von Arzneimistoffen in CEC, Fortbildungskurs über die Einsatz von Kapillarelektrophorese in Arzneimittelanalytik, Braunschweig, Germany, September, 2001
101. B. Chankvetadze, G. Blaschke, Mechanistic studies on chiral recognition of cyclodextrins in capillary electrophoresis, 9-th International Symposium on Recent Developments in Pharmaceutical Analysis (RDPA'01), Lipari, Italy, June 3-8, 2001.
102. B. Chankvetadze, CE/CEC-techniques for chiral separations, "The Analytical Days" Stockholm, Sweden, June 11-14, 2001.
103. B. Chankvetadze, I. Kartozia, G. Blaschke, Optimization of enantioseparations in capillary chromatography and capillary electrochromatography using polysaccharide-type chiral stationary phases, 25-th Internationaly Symposium on High Performance Liquid Phase Separations and Related Techniques, Maastricht, The Netherlands, June 17-22, 2001.
104. B. Chankvetadze, Polysaccharide derivatives as chiral stationary phases for CEC enantioseparations, IUPAC Congress on Analytical Sciences, Tokyo, Japan, August 6-10, 2001.
105. B. Chankvetadze, G. Blaschke, NMR, ESI-MS and molecular modeling studies on chiral recognition mechanisms of cyclodextrins in CE, HPLC-2001 in Kyoto, Kyoto, Japan, September 11-14, 2001.
106. B. Chankvetadze, G. Blaschke, Recent developments in miniaturized enantioseparation techniques, 3-nd International Symposium in Pharmaceutical Chemistry, Istanbul, Turkey, September 17-19, 2001.
107. B. Chankvetadze, Enantioseparations in capillary chromatography and electrochromatography, Nagoya University Venture Business Laboratory (VBL) seminar, Nagoya, Japan, October, 2000.
108. B. Chankvetadze, Recent developments in enantioseparations using capillary electromigration techniques, Institute of Pharmacy, University of Liege, Liege, Belgium, July, 2000.
109. B. Chankvetadze, G. Blaschke, Comparative study of enantioseparations in nonaqueous CEC and capillary HPLC, 24-th International Symposium on High

- Performance Liquid Chromatography and Related Techniques, Seattle, WA, USA, June 24-30, 2000.
- 110. B. Chankvetadze, G. Blaschke, Enantioseparations in nonaqueous CEC: basics and applications, 13-th International Symposium on High Performance Capillary Electrophoresis and Related Microscale techniques, Saarbrücken, Germany, February 20-24, 2000.
  - 111. B. Chankvetadze, Enantioseparations in capillary electrophoresis, One-day meeting on Molecular Chirality, Tohoku University, Sendai, Japan, January, 2000.
  - 112. B. Chankvetadze, Enantioseparations in capillary chromatography and electrochromatography, Nagoya University Venture Business Laboratory (VBL) seminar, Nagoya, Japan, January, 2000.
  - 113. B. Chankvetadze, Recent trends in chiral CE and CEC, Seminar, Department of Polymer Chemistry and Polymer Technology, Kyoto Institute of Technology, Kyoto, Japan, January, 2000.
  - 114. B. Chankvetadze, Mechanistic studies on the inclusion complex formation of cyclodextrins using capillary electrophoresis, NMR spectrometry, X-ray crystallography and molecular modeling techniques, Seminar, Mukogawa Women's University, Nishinomiya, Japan, December, 1999.
  - 115. B. Chankvetadze, Y. Okamoto, CEC enantioseparations using polysaccharide-type chiral stationary phases, 22-nd International Symposium on Capillary Chromatography and Capillary Electrophoresis, Gifu, Japan, November, 1999.
  - 116. B. Chankvetadze, G. Blaschke, Mechanistic studies of chiral CE, 2-nd International Symposium on Pharmaceutical Chemistry, Ankara, Turkey, September, 1999.
  - 117. B. Chankvetadze, G. Blaschke, Enantioseparations in nonaqueous CEC, 2-nd International Symposium on Pharmaceutical Chemistry, Ankara, Turkey, September, 1999.
  - 118. B. Chankvetadze, N. Burjanadze, G. Pintore, G. Blaschke, NMR, ESI-MS and X-ray crystallographic studies on chiral recognition mechanisms of cyclodextrins in capillary electrophoresis, 23-th International Symposium on High Performance Liquid Chromatography and Related Techniques (HPLC-99), Granada, Spain, May-June, 1999.
  - 119. B. Chankvetadze, G. Blaschke, One-day Workshop on Chiral Separations at the University of Aachen, Germany, January, 1999.
  - 120. B. Chankvetadze, G. Blaschke, Enantioseparation mechanisms in capillary electrophoresis, 22-th International Symposium on High Performance Liquid Chromatography and Related Techniques (HPLC-98), St. Louis, MO, USA, May, 1998.
  - 121. B. Chankvetadze, Enantioseparations in CE, Research seminar at the Department of Chemistry, Texas A&M University, College Station, TX, USA, May, 1998.
  - 122. B. Chankvetadze, G. Blaschke, Enantioseparations in CEC, Joint International Symposium on Pharmaceutical and Biomedical Analysis (PBA-98) and Drug Analysis-98, Brussels, Belgium, May, 1998.
  - 123. B. Chankvetadze, HPLC enantioseparations on polysaccharide derivatives, Analytica-98, Munich, Germany, April, 1998.
  - 124. B. Chankvetadze, Enantioseparations in capillary electrophoresis, research seminar in Institute of Pharmaceutical Chemistry, University of Bonn, Germany, November, 1997.

125. B. Chankvetadze, Recent developments in enantioseparations using capillary electromigration techniques, Institute of Pharmacy, University of Liege, Liege, Belgium, November, 1997.
126. B. Chankvetadze, Y. Okamoto, HPLC enantioseparations on novel polysaccharide derivatives, First International Symposium on Pharmaceutical Chemistry, Ankara, Turkey, September, 1997.
127. B. Chankvetadze, HPLC enantioseparations on mixed chloromethylphenylcarbamates of cellulose and amylose, Workshop on Chiral Separations at the University of Mainz, Mainz, Germany, September, 1997.
128. B. Chankvetadze, G. Blaschke, G. Schulte, D. Bergenthal, Chiral separations in capillary electrophoresis using selectively substituted cyclodextrin derivatives, 21-st International Symposium on High Performance Liquid Chromatography and Related Techniques (HPLC-97), Birmingham, UK, June, 1997.
129. B. Chankvetadze, Recent developments in enantioseparations using capillary electrophoresis. Research seminar at the Himeji Institute of Technology, Hyogo, Japan, October, 1996.
130. B. Chankvetadze, Enantioseparations using new phenylcarbamate derivatives of cellulose and amylose. Research seminar at Daicel Chem. Ind., Himeji, Japan, October, 1996.
131. B. Chankvetadze, G. Blaschke, Nature and adjustment of enantiomer migration order in CE, 6-th International Symposium on Pharmaceutical and Biomedical Analysis (PBA-96), Osaka, Japan, August, 1996.
132. B. Chankvetadze, Enantiomer migration order in capillary electrophoresis, Symposium on Molecular Chirality-96, Tokyo, Japan, May, 1996.
133. B. Chankvetadze, 3 Presentations at the School of Pharmacy, Haceteppe University, Ankara, Turkey, January, 1996: Enantioseparations in HPLC
134. Enantioseparations in CE
135. Preparative-scale enantioseparations of drugs

**Seminars since 2011:**

136. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, 1-day seminar at Phenomenex Inc. (Germany), Aschaffenburg, Germany March 22, 2011.
137. Bezhan Chankvetadze, Chiral Separations, 1-day seminar at the Department of Chemistry, University La Sapienza, Rome, Italy, June 28, 2011.
138. Bezhan Chankvetadze, Chiral Separations, 1-day seminar at the Department of Pharmaceutical Chemistry, University of Milan, Italy, June 29, 2011.
139. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, 1-day seminar at 8-th Congress of Brasilian Pharmaceutical Society, Ribeirao Preto, Brasil, August 22, 2011.
140. Bezhan Chankvetadze, Chiral Separations, 1-day seminar in Basel, Switzerland, September 15, 2011.
141. Bezhan Chankvetadze, Chiral Separations, 1-day seminar at the Department of Pharmaceutical Chemistry, University of Bologna, Bologna, Italy, September 26, 2011.
142. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at the Department of Chemistry, Peking University, Beijing, China, October 14, 2011.

143. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Pharmaron, Beijing, China, October 15, 2011.
144. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at the Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, China, October 17, 2011.
145. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at the Department of Chemistry, Nanjing University, Nanjing, China, October 18, 2011.
146. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at the China Pharmaceutical University, Nanjing, China, October 18, 2011.
147. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at the Department of Chemistry, Zhenjiang University, Hanzhou, China, October 19, 2011.
148. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at the Department of Chemistry, Autonoma University Madrid, Madrid, Spain, November 12, 2011.
149. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Elly Lilly, Alcobendas-Madrid, Spain, November 12, 2011.
150. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at the Department of Chemistry, Autonoma University Madrid, Madrid, Spain, November 12, 2011.
151. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Expoquimia, Spain, November 13 and 15, 2011.
152. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Phenomenex Inc-France, Paris, November 22, 2011.
153. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Phenomenex Inc-Italy, September 20, 2012, Bologna, Italy.
154. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Sicor Srl., September 21, 2012, Milan, Italy.
155. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Uptuit Srl., September 21, 2012, Verona, Italy.
156. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Rotapharm SpA, September 24, 2012, Monza, Italy.
157. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Chirosis Srl., September 24, 2012, Gerenzano, Italy.
158. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Industriale Chimica Srl., September 25, 2012, Saronno, Italy.
159. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, One Day Seminar, September 26, 2012, Basel, Switzerland.

160. Bezhan Chankvetadze, New Lux series of chiral stationary phases for HPLC separation of enantiomers, Seminar at Phenomenex Inc-Germany, October 18, 2012, Aschaffenburg, Germany.

### დანართი 3

#### პუბლიკაციები

1. L. Akhalbedashvili, G.Tsitsishvili, Z. Gryaznova, Sh. Sidamonidze, B. Chankvetadze, Reaction of methanol over cobalt, nickel, and copper L- and mordenite-type zeolites, Soobsh. Akad. Nauk Gruz. SSR, 1979, 94 (2), 361-364, Chem. Abstr., 1979, v. 91, 1979, 192762.
2. Sh. Sidamonidze, L. Akhalbedashvili, G. Tsitsishvili, B. Chankvetadze, M. Djagashvili, Reduction of nitric oxide over natural clinoptilolite and its cationmodified forms, Soobsh. Akad. Nauk Gruz. SSR, 1980, 100 (2), 345-348, Chem. Abstr., 1981, v.95, 66996.
3. A. Mskhiladze, M. Gudavadze, B. Chankvetadze, G. Tsitsishvili, Sh. Sidamonidze, Derivatographic study of ultrasil type zeolites, Soobsh. Akad. Nauk Gruz. SSR, 1987, 128 (1), 57-60, Chem. Abstr. 1988, v. 108, 119882.
4. A. Mskhiladze, B. Chankvetadze, G. Tsitsishvili, Sh. Sidamonidze, Conversion of ethanol over cation-modified Y-type zeolites, Soobsh. Akad. Nauk Gruz. SSR, 1988, 129 (2), 345-348, Chem. Abstr., 1988, v.108, 223412.
5. D. Gonashvili, B. Chankvetadze, B. Babunashvili, Oxidative reaction of 2-propanol on cation-exchanged Y-type zeolites, Soobsh. Akad. Nauk Gruz. SSR, 1989, 135 (1), 141-144, Chem. Abstr. 1990, v.112, 197542 223.
6. B. Chankvetadze, M. Rukhadze, N. Okujava, Sh. Sidamonidze, Quantitative determination of trace cyclohexanone and cyclohexanone oxime by microcolumn high-performance liquid chromatography, Zavod. Lab. 1990, 56 (4), 8-10, Chem. Abstr., 1991, v.115, 63740.
7. Sh. Sidamonidze, L. Akhalbedashvili, B. Chankvetadze, Catalytic activity of clinoptilolite Soobsh. Akad. Nauk Gruz. SSR, 1986, v.103, 221708.
8. A. A. Vedenyapin, E. I. Klabunovskii, B. Chankvetadze, New procedure for producing a nickel catalyst for asymmetric hydrogenation, Izv. Akad. Nauk SSSR, Ser. Khim. 1983, 3, 701 (Russ.), Chem Abstr., v.98 (1983), 167691.
9. A. A. Vedenyapin, B. Chankvetadze, E. Klabunovskii, Studies of copper-nickel catalysts for enantioselective hydrogenation, React. Kinet. Catal. Lett., 1984, 24(1-2) 77-80 (Engl.), Chem. Abstr., v.100, 1984, 162509.
10. A. Vedenyapin, B. Chankvetadze, L. Tsivinskaya, E. Klabunovskii, V. Akimov, Studies of copper-nickel supported catalysts for enantioselective hydrogenation, React. Kinet. Catal. Lett., 1987, 33(1) 53-58 (Engl), Chem. Abstr., v. 108, 1988, 74488.
11. A. Vedenyapin, B. Chankvetadze, V. Akimov, E. Klabunovskii, Formation of dissymmetric copper-nickel catalysts, Izv. Akad. Nauk SSSR, Ser. Krim., 1988, 2213-2217, (Russ.), Chem. Abstr., v. 110, 1989, 211882.
12. V. Okudzhava, B. Chankvetadze, Z. Antadze, M. Rukhadze, F. Vetrogon, Quantitative determination of sodium valproate by gas-liquid chromatography, Soobsh. Akad. Nauk. Gruz. SSR, 1986, 121 (3) 557-559 (Russ.), Chem. Abstr., 105, 1985, 17745.
13. V. Okudzhava, B. Chankvetadze, M. Rukhadze, Quantitative determination of carbamazepine by gas-liquid chromatography, Soobsch. Akad. Nauk Gruz. SSR, 1986, 123(1) 165-168 (Russ.), Chem. Abstr., 106, 1987, 78118.
14. V. Okudzhava, B. Chankvetadze, M. Rukhadze, Quantitative determination of phenobarbital by gas-liquid chromatography, Soobsh. Akad. Nauk Gruz. SSR, 1986, 124 (3) 629-631 (Russ.), Chem. Abstr., 106, 1987, 113030.

15. V. Okudzhava, B. Chankvetadze, M. Rukhadze, Simultaneous quantitative determination of sodium valproate and ethosuximide by gas-liquid chromatography, Soobsch. Akad. Nauk Gruz. SSR, 1987, 125 (1) 169-171 (Russ.), Chem. Abstr., 106, 1987, 40165.
16. V. Okudzhava, B. Chankvetadze, M. Rukhadze, Use of stationary phase E-301 in drug analysis by gas-liquid chromatography, Izv. Akad. Nauk Gruz. SSR, Ser. Biol., 1986, 12 (6) 396-401 (Russ.), Chem. Abstr., 106, 1987, 168378.
17. V. Okudzhava and B. Chankvetadze, A quantitative analysis of some anticonvulsants by gas-liquid chromatography, Farmakol. Toksikol. (Moscow), 1987, 50 (4), 46-49 (Russ.), Chem. Abstr. 107, 1987, 89206.
18. V. Okudzhava, B. Chankvetadze, M. Rukhadze, M. Rogava, Quantitative determination of some tranquilizers and anticonvulsant drugs using high performance liquid chromatography, Izv. Akad. Nauk Gruz. SSR, Ser. Biol., 1988, 14(1) 66-68 (Russ.), Chem. Abstr., 109, 1988, 85597.
19. V. Okudzhava, B. Chankvetadze, M. Rukhadze, M. Rogava, Quantitative determination of benzodiazepine compounds by hygh performance liquid chromatography, Soobsch. Akad. Nauk Gruz. SSR, 1988, 130(1) 85-88 (Russ.), Chem. Abstr., 109, 1988, 85625.
20. V. Okudzhava, B. Chankvetadze, Z. Antadze, S. Chkhenkeli, M. Rukhadze, Some pharmacokinetic aspects of anticonvulsunt therapy with benzobarbital, Zh. Nevropatol. Psichiatr. im. S. S. Korsakova 1988, 88 (6) 49-52 (Russ.), Chem. Abstr., 109, 1988, 85668.
21. V. Okudzhava, B. Chankvetadze, M. Rukhadze, M. Rogava, Metabolism of anticonvulsant drug benzonal in humans, Zh. Nevropatol. Psichiatr. im. S. S. Korsakova, 1988, 88 (7) 94-95 (Russ.), Chem. Abstr., 109, 1988, 121950.
22. V. Okudzhava, B. Chankvetadze M. Rukhadze, M. Rogava, Simultaneous quantitative determination of benzonal, phenobarbital and carbamazepine by high performance liquid chromatography, Soobsch. Akad. Nauk Gruz. SSR, 1988, 131 (2), 309-312, (Russ.), Chem. Abstr., 109, 1988, 221816.
23. V. Okudzhava, B. Chankvetadze, M. Rukhadze, Simultaneous quantitative determination of benzonal (or phenobarbital), primidone and diphenylhydantoin by gas-liquid chromatography, Soobsch. Akad. Nauk Gruz. SSR, 1988, 132(1), 61-64, (Russ.), Chem. Abstr., 110, 1989 107497.
24. V. Okudzhava, B. Chankvetadze, M. Rogava, N. Djikia, K. Lomsadze, Metabolism of benzonal in guinea pigs, Farmakol. Toksikol., (Moscow), 1989, 52(3), 71-73 (Russ.), Chem. Abstr., 111, 1989, 33055.
25. V. Okudzhava, B. Chankvetadze, M. Rukhadze, M. Rogava, Simultaneous quantitative determination of benzonal and carbamazepine by high performance liquid chromatography, Soobsch. Akad. Nauk Gruz. SSR, 1989, 133 (3), 557-560 (Russ.), Chem. Abstr., 111, 1989, 70221.
26. V. Okudzhava, B. Chankvetadze, M. Rukhadze, N. Akhobadze, High performance liquid chromatography assay of serum sodium ethaminal, Farmatsya (Moscow) 1989, 38 (4), 58-60 (Russ.), Chem. Abstr., 111, 1989, 108416.
27. V. Okudzhava, B. Chankvetadze, M. Rukhadze, M. Rogava, Simultaneous determination of halodiph, benzonal and carbamazepine by high performance liquid chromatography, Farmatsya (Moscow), 1989, 38(5), 44-47 (Russ.), Chem. Abstr., 112, 1990, 82.
28. V. Okudzhava, B. Chankvetadze, M. Rukhadze, M. Rogava, Metabolism of antiepileptic drug halonal in animals, Zh. Nevropatol. Psichiatr. im S. S. Korsakova 1989, 89 (10) 69-70 (Russ.), Chem. Abstr., 112, 1990, 30191.

29. V. Okudzhava, B. Chankvetadze, N. Akhobadze, Pharmacokinetic study of sodium ethaminal in rabbits and guinea pigs, Izv. Akad. Nauk Gruz. SSR, Ser. Biol., 1989, 15 (5) 317-322 (Russ.), Chem. Abstr., 112, 1990, 111462.
30. V. Okudzhava, B. Chankvetadze, Sh. Sidamonidze, N. Tkesheliadze, N. Kedelashvili, Spectroscopic study of acid hydrolysis products of benzonal, Soobsch. Akad. Nauk Gruz. SSR, 1989, 136(2), 341-4 (Russ.), Chem. Abstr. 113, 1990, 40618.
31. V. Okudzhava, B. Chankvetadze, M. Rukhadze, Simultaneous determination of hexamidine, phenobarbital, carbamazepine and diphenine by microcolumn high performance liquid chromatography, Khim. Pharm. Zh., 1990, 24(4) 79-80 (Russ.), Chem. Abstr., 113, 1990, 51974.
32. V. Okudzhava, B. Chankvetadze, M. Rukhadze, M. Rogava, Simultaneous quantitative determination of halonal, benzonal, phenobarbital, puphemide, carbamazepine and halodiph in serum by microcolumn high performance liquid chromatography, Zh. Anal. Khim., 1990, 45(8) 1647-1651 (Russ.), Chem. Abstr., 113, 1990, 204346.
33. V. Okudzhava, B. Chankvetadze, N. Akhobadze, The development of barbital withdrawel syndrom in rabbits, Izv. Akad. Nauk Gruz. SSR, Ser. Biol., 1991, 17(1) 5-11 (Russ.), Chem. Abstr., 115, 1991, 150243.
34. V. Okudzhava, B. Chankvetadze, M. Rukhadze, M. Rogava, N. Tkesheliadze, Use of normale-phase microcolumn high-phерformance liuid chromatography for the study of hydrolytic stability, metabolic profile and pharmacokinetics of an antiepileptic drug benzonal, J. Pharm. Biomed. Anal., 1991, 9(6), 465-473 (Eng.), Chem. Abstr., 116, 1992, 15237.
35. V. Okudzhava, B. Chankvetadze, Z. Chitiashvili, M. Rogava. Metabolic and pharmacikinetic study of the antiepileptic drug halonal, in: Recent Dev. Ther. Drug Monit. Clin. Toxicol., 1992, 443-50 (Eng) Ed. by Sunshine I. Dekker, N. Y.
36. B. Chankvetadze, V. Okudzhava, Z. Chitiashvili, A. Mikautidze, Metabolic and pharmacikinetic study of the antiepileptic drug pupemide, Recent Dev. Ther. Drug Monit. Clin. Toxicol., 1992, 451-8 (Eng) Ed. by Sunshine I. Dekker, N. Y.
37. B. Chankvetadze, E. Yashima, Y. Okamoto, Tris(chloro- and methyl-disubstituted phenylcarbamate)s of cellulose as chiral stationary phases for chromatographic enantioseparation, Chem. Lett., 1993, (4) 617-620.
38. B. Chankvetadze, E. Yashima, Y. Okamoto, Optical resolution on chloro- and methydisubstituted phenylcarbamate derivatives of cellulose and amylose, Polymer Preprints, Japan (English Edition), v. 42 (1-4), 1993, E228.
39. B. Chankvetadze, E. Yashima, Y. Okamoto, Chloro-methyl-phenylcarbamate derivatives of cellulose as chiral stationary phases for high performance liquid chromatography, J. Chromatogr. A., 670 (1994), 39-49.
40. B. Chankvetadze, E. Yashima, Y. Okamoto, Dimethyl-, dichloro- and chloromethyl-phenylcarbamate derivatives of amylose as chiral stationary phases for high performance liquid chromatography, J. Chromatogr. A, 694 (1995) 101-109.
41. B. Chankvetadze, L. Chankvetadze, Sh. Sidamonidze, E. Yashima, Y. Okamoto, Enantioseparation of some chiral pharmaceuticals using narrow-bore liquid chromatography, J. Pharm. Biomed. Anal., 13 (1995), 695-698.
42. B. Chankvetadze, L. Chankvetadze, Sh. Sidamonidze, E. Yashima, Y. Okamoto, High performance liquid chromatography enantioseparation of chiral pharmaceuticals using tris(chloro-methylphenylcarbamate)s of cellulose, J. Pharm. Biomed. Anal., 14 (1996), 1295-1303.

43. B. Chankvetadze, E. Yashima, Y. Okamoto, Dichloro-, dimethyl-, and chloromethylphenylcarbamate derivatives of cyclodextrins as chiral stationary phases for high-performance liquid chromatography, *Chirality*, 8 (1996) 402-407.
44. B. Chankvetadze, L. Chankvetadze, Sh. Sidamonidze, E. Kasashima, E. Yashima and Y. Okamoto, 3-Fluoro-, 3-bromo-, and 3-chloro-5-methylphenylcarbamates of cellulose and amylose as chiral stationary phases for HPLC enantioseparation, *J. Chromatogr. A*, 787 (1997) 67-77.
45. B. Chankvetadze, G. Endresz and G. Blaschke, About some aspects of the use of charged cyclodextrins for capillary electrophoresis enantioseparation, *Electrophoresis*, 15 (1994), 804-807.
46. B. Chankvetadze, G. Endresz, G. Blaschke, Enantiomeric resolution of Chiral imidazole derivatives using capillary electrophoresis with cyclodextrin-type buffer modifiers, *J. Chromatogr. A*, 700 (1995) 43-49.
47. B. Chankvetadze, G. Endresz, G. Blaschke, Enantiomeric resolution of anionic R/S-1,1'-binaphthyl-2,2'-diyl hydrogen phosphate by capillary electrophoresis using anionic cyclodextrin derivatives as chiral selectors, *J. Chromatogr. A*, 704 (1995) 234-238.
48. B. Chankvetadze, G. Endresz, G. Blaschke, Capillary electrophoresis enantioseparation of noncharged and anionic chiral compounds using anionic cyclodextrin derivatives as chiral selectors, *J. Cap. Elec.*, 2 (1995) 235-240.
49. B. Chankvetadze, G. Endresz, D. Bergenthal, G. Blaschke, Enantioseparation of mianserine analogues using capillary electrophoresis with neutral and charged cyclodextrin buffer modifiers,  $^{13}\text{C}$  NMR study of the chiral recognition mechanism, *J. Chromatogr. A*, 717 (1996) 245-253.
50. G. Endresz, B. Chankvetadze, D. Bergenthal, G. Blaschke, Comparative capillary electrophoresis and nuclear magnetic resonance studies of the chiral recognition of racemic metomidate with cyclodextrin hosts, *J. Chromatogr. A*, 732 (1996) 133-142.
51. B. Chankvetadze, G. Endresz, G. Schulte, D. Bergenthal, G. Blaschke, Capillary electrophoresis and  $^1\text{H}$ -NMR studies on chiral recognition of atropisomeric binaphthyl derivatives by cyclodextrin hosts, *J. Chromatogr. A*, 732 (1996) 143-150.
52. B. Chankvetadze, G. Schulte, G. Blaschke, Reversal of enantiomer elution order in capillary electrophoresis using charged and neutral cyclodextrins, *J. Chromatogr. A*, 732 (1996) 183-186.
53. B. Chankvetadze, G. Endresz, G. Blaschke, Charged cyclodextrin derivatives as chiral selectors in capillary electrophoresis, *Chem. Soc. Rev.*, 25 (1996) 141-153.
54. B. Chankvetadze, G. Endresz, G. Blaschke, M. Juza, H. Jakubetz, V. Schurig, Analysis of charged cyclomalto-oligosaccharide (cyclodextrin) derivatives by IS-, MALDI-TOF, FAB-MS and CE, *Carbohydr. Res.*, 287 (1996) 139-155.
55. B. Chankvetadze, G. Schulte, G. Blaschke, Nature and design of enantiomer migration order in chiral capillary electrophoresis, *Enantiomer*, 2 (1997) 157-179.
56. G. Schulte, B. Chankvetadze, G. Blaschke, Enantioseparation in capillary electrophoresis using hydroxypropyl trimethylammonium salts of  $\beta$ -CD as a chiral selector, *J. Chromatogr. A*, 771 (1997) 259-266.
57. B. Chankvetadze, M. Saito, E. Yashima, Y. Okamoto, Enantioseparations using selected polysaccharides as chiral buffer additives in capillary electrophoresis, *J. Chromatogr. A*, 773 (1997) 331-338.

58. B. Chankvetadze, M. Saito, E. Yashima, Y. Okamoto, Enantioseparation of atropisomeric 1,1'-binaphthyl-2,2'-dyl-hydrogen phosphate in capillary electrophoresis using di- and oligosaccharides as chiral selectors. *Chirality*, 10 (1998) 134-139.
59. B. Chankvetadze, G. Schulte, G. Blaschke, Selected applications of capillaries with dynamic or permanent anodal electroosmotic flow in chiral separations by capillary elecrophoresis, *J. Pharm. Biomed. Anal.*, 15 (1997) 1577-1584.
60. G. Schulte, S. Heitmeier, B. Chankvetadze, G. Blaschke, Chiral capillary electrophoresis-electrospray mass spectrometry coupling with charged cyclodextrin derivatives as chiral selectors, *J. Chromatogr. A*, 800 (1998) 77-82.
61. S. Fanali, C. Desiderio, G. Schulte, S. Heitmeier, D. Strickmann, B. Chankvetadze, G. Blaschke, Chiral capillary electrophoresis-electrospray mass spectrometry coupling using vancomycin as chiral selector, *J. Chromatogr. A*, 800 (1998) 69-76.
62. B. Chankvetadze, Separation selectivity in chiral capillary electrophoresis with charged selectors, *J. Chromatogr. A* 792 (1997) 269-295.
63. B. Chankvetadze, G. Schulte, D. Bergenthal, G. Blaschke, Comparative capillary electrophoresis and NMR studies of enantioseparation of dimethindene with cyclodextrins, *J. Chromatogr. A*, 798 (1998) 315-323.
64. B. Chankvetadze, M. Frost, G. Blaschke. Kapillarelektrophorese, attractive Technik für Enantiomeranalytik, *Pharmazie in unserer Zeit*, 28 (1999) 186-196.
65. B. Chankvetadze, Recent trends in chiral separations using capillary elctromigration techniques, *Trends Analytical Chemistry (TrAC)*, 18 (1999) 485-498.
66. B. Chankvetadze, G. Pintore, N. Burjanadze, D. Bergenthal, D. Strickmann, R. Cerri, G. Blaschke, Capillary electrophoresis, nuclear magnetic resonance and mass-spectrometric studies of opposite chiral recognition of chlorpheniramine enantiomers with various cyclodextrins, *Electrophoresis*, 19 (1998) 2101-2108.
67. G. Blaschke, B. Chankvetadze, Resolution of racemic mixtures in: F. Gaultieri (ed); *New Trends in Synthetic Medicinal Chemistry*, (Chapter 6), Wiley-VCH, 2000, Weinheim, Germany. pp. 139-173.
68. B. Chankvetadze, G. Blaschke, G. Pintore, Ligand-CD complexes in solution, in: U. Holzgrabe, H. Diehl, K. Wawer (eds), *NMR Spectroscopy in Drug Analysis and Drug Development*, Wiley-VCH, 2000, Weinheim,Germany.
69. B. Chankvetadze, N. Burjanadze, G. Pintore, D. Strickmann, D. Bergenthal, G. Blaschke, Chiral recognition of verapamil by cyclodextrins studied with capillary electrophoresis, NMR- and mass-spectrometry, *Chirality*, 11 (1999) 635-644.
70. K. Krause, M. Girod, B. Chankvetadze, G. Blaschke, Enantioseparations in normal- and reversed-phase nano-HPLC and capillary electrochromatography using polyacrylamide and polysaccharide derivatives as chiral stationary phases, *J. Chromatogr. A* 837 (1999) 51-63.
71. M. Meyring, D. Strickmann, B. Chankvetadze, G. Blaschke, C. Desiderio, S. Fanali, Investigation of in vitro biotransformation of R-(+)-thalidomide by HPLC, nano-HPLC, CEC and HPLC-APCI-MS, *J. Chromatogr. B* 723 (1999) 255-264.
72. A. Vedenyapin, E. Klabunovskii, B. Chankvetadze, G. Areshidze, V. Akimov, D. Zurabashvili, Study of assymetric copper-nickel catalysts with use of physical methods, The 7-th Soviet-Japanese Seminar on Catalysis, edited by Davidov A., 1983, p. 191-202 . Chem. Abstr. 101, 1984, 137800.
73. E. Klabunovskii, A. Vedenyapin, B. Chankvetadze, G. Areshidze, Study of copper-nickel catalyst behaviour in enantioselective hydrogenation, in: Proc. of the 8-th International

- Congress on catalysis, 1984, 5 v543-v552, Verlag Chemie, Germany, Chem. Abstr. 106, 1987, 195682.
74. G. Blaschke, M. Heuermann, B. Chankvetadze, G. Endresz, P. Overbeck, Enantiomerentrennung durch Kapillarelektrophorese (CE), Würzburger Kolloquium on Chromatography and Capillary Electrophoresis, Würzburg, Germany, 1994 (Ed. H.J. Schneider), Bertsch Verlag, 1994, pp. 31-38.
75. K. Krause, B. Chankvetadze, Y. Okamoto, G. Blaschke, Chiral separations in nonaqueous capillary electromatopgraphy using helically chiral poly(diphenyl-2-pyridylmethyl methacrylate) as chiral stationary phase, *Electrophoresis*, 20, (1999) 2772-2778.
76. B. Chankvetadze, N. Burjanadze, D. Bergenthal, G. Blaschke, Potential of flow-counterbalanced capillary electrophoresis for analytical and micropreparative separations, *Electrophoresis*, 20 (1999) 2680-2685.
77. M. Fillet, B. Chankvetadze, J. Crommen, G. Blaschke, Designed combination of chiral selectors for improvement of enantioseparation selectivity in capillary electrophoresis, *Electrophoresis*, 20 (1999) 2691-2697.
78. B. Chankvetadze, G. Blaschke, Selector-selectand interactions in chiral capillary electrophoresis, *Electrophoresis*, 20 (1999) 2592-2604.
79. M. Meyring, B. Chankvetadze, G. Blaschke, Enantioseparation of thalidomide and its metabolites using capillary electrophoresis with various cyclodextrins and their combinations as chiral buffer additives, *Electrophoresis*, 20 (1999) 2425-2431.
80. B. Chankvetadze, Chiral separations by CE and MEKC with cyclodextrins, Dekker Encyclopedia of Chromatography, Marcel Dekker, Inc., New York, 2001.
81. M. Girod, B. Chankvetadze, G. Blaschke, Enantioseparations in nonaqueous capillary electrochromatography using polysaccharide type chiral stationary phase, *J. Chromatogr. A* 887 (2000) 439-455.
82. D. Strickmann, B. Chankvetadze, G. Blaschke, C. Desiderio, S. Fanali, Separation and identification of etodolac and its urinary phase 1 metabolites using capillary electrochromatography and on-line capillary electrochromatography/electrospray ionization mass spectrometry coupling, *J. Chromatogr. A*, 887 (2000) 393-407.
83. M. Meyring, B. Chankvetadze, G. Blaschke, Simultaneous separation and enantioseparation of thalidomide and its hydroxylated metabolites using high performance liquid chromatography in common-size columns, capillary liquid chromatography and nonaqueous capillary electrochromatography. *J. Chromatogr. A*, 876 (2000) 157-167.
84. K. Krause, B. Chankvetadze, Y. Okamoto, G. Blaschke, Enantioseparations in nonaqueous and aqueous capillary electrochromatography using helically chiral poly(diphenyl-2-pyridylmethyl methacrylate) as chiral stationary phase, *J. Microcol. Sep.* 12 (2000) 398-406.
85. S. Sarac, B. Chankvetadze, G. Blaschke, Enantioseparation of 3,4-dihydroxyphenylalanine and 2-hydrozino-2-methyl-3-(3,4-dihydroxyphenyl)-propanoic acid by capillary electrophoresis using cyclodextrins, *J. Chromatogr. A*, 875 (2000) 379-387.
86. B. Chankvetadze, G. Pintore, N. Burjanadze, D. Bergenthal, K. Bergander, J. Breitkreutz, C. Mühlenbrock, G. Blaschke, Mechanistic study of opposite migration order of dimethindene enantiomers in capillary electrophoresis in the presence of native  $\beta$ -CD and heptakis-(2,3,6-tri-O-methyl)- $\beta$ -CD. *J. Chromatogr. A*, 875 (2000) 455-469.
87. B. Chankvetadze, N. Burjanadze, G. Pintore, D. Bergenthal, K. Bergander, C. Mühlenbrock, J. Breitkreutz, G. Blaschke, Separation of brompheniramine enantiomers by capillary electrophoresis and study of chiral recognition mechanisms of cyclodextrins using

NMR-spectroscopy, UV-spectrometry, ESI-MS and x-ray crystallography, *J. Chromatogr. A*, 875 (2000) 471-484.

88. B. Chankvetadze, M. Fillet, N. Burjanadze, D. Bergenthal, C. Bergander, H. Luftmann, J. Crommen, G. Blaschke, Enantioseparation of aminoglutethimide with cyclodextrins in capillary electrophoresis and studies of selector-selectand interactions using NMR spectroscopy and electrospray ionization mass spectrometry, *Enantiomer*, 5 (2000) 313-322.
89. G. Blaschke, B. Chankvetadze, Enantiomer separation of drugs by capillary electromigration techniques, *J. Chromatogr. A*, 875 (2000) 3-25.
90. B. Chankvetadze, C. Yamamoto, Y. Okamoto, HPLC Enantioseparation with cellulose tris(3,5-dichlorophenylcarbamate) in aqueous methanol as a mobile phase, *Chem. Lett.*, 2000, 352-353.
91. B. Chankvetadze, C. Yamamoto, Y. Okamoto, Enantioseparations using cellulose tris(3,5-dichlorophenylcarbamate) in high-performance liquid chromatography in common size and capillary columns: Potential for screening of chiral compounds. *Combinatorial Chemistry and High Throughput Screening*, (2000), 3, 497-508.
92. B. Chankvetadze, C. Yamamoto, Y. Okamoto, Extremely high enantiomer recognition in HPLC separation of racemic 2-(benzylsulfinyl)benzamide using cellulose tris (3,5-dichlorophenylcarbamate) as a chiral stationary phase, *Chem. Lett.*, 2000, 1176-1177.
93. M. Girod, B. Chankvetadze, G. Blaschke, Enantioseparations using non-aqueous capillary electrochromatography on cellulose and amylose tris(3,5-dimethylphenylcarbamate)s coated on silica gels of various pore and particle size, *Electrophoresis*, (2001) 22, 1282-1291.
94. B. Chankvetadze, G. Blaschke, Enantioseparations in capillary electromigration techniques: Recent developments and future trends, *J. Chromatogr. A*, 906, (2001), 309-363.
95. B. Chankvetadze, C. Yamamoto, Y. Okamoto, Enantioseparation of selected chiral sulfoxides using polysaccharide-type chiral stationary phases and polar organic, polar aqueous-organic and normal-phase eluents, *J. Chromatogr. A*, 922 (2001) 127-137.
96. B. Chankvetadze, I. Kartozia, N. Burjanadze, D. Bergenthal, H. Luftmann, G. Blaschke, Enantioseparation of chiral phenothiazine derivatives in capillary electrophoresis using cyclodextrin type chiral selectors, *Chromatographia*, 53 (2001) S290-S296.
97. B. Chankvetadze, N. Burjanadze, J. Crommen, G. Blaschke, Enantioseparation of warfarin using cyclodextrin type chiral selectors, *Chromatographia*, 53 (2001) S296-S301.
98. B. Chankvetadze, G. Blaschke, Enantioseparations using capillary electromigration techniques in nonaqueous buffers, *Electrophoresis*, 21 (2000), 4159-4178.
99. M. Girod, B. Chankvetadze, Y. Okamoto, G. Blaschke, Highly efficient enantioseparations in non-aqueous capillary electrochromatography using cellulose tris(3,5-dichlorophenylcarbamate) as chiral stationary phase, *J. Sep. Sci.*, 24 (2001) 27-34.
100. B. Chankvetadze, I. Kartozia, G. Blaschke, Simultaneous enantioseparation of diltiazem hydrochloride and deacetyl diltiazem using high-performance liquid chromatography and capillary electrophoresis, *J. Pharm. Biomed. Anal.*, 27 (2002) 161-166.
101. B. Chankvetadze, N. Burjanadze, G. Blaschke, Enantioseparations of chiral vasodilator drug ( $\pm$ )-isoxsuprine using high-performance liquid chromatography and capillary electrophoresis, *J. Pharm. Biomed. Anal.*, 27 (2002) 153-159.

102. T. Wakita, B. Chankvetadze, C. Yamamoto, Y. Okamoto, Chromatographic enantioseparation on capillary column containing covalently bound cellulose (3,5-dichlorophenylcarbamate) as chiral stationary phase, *J. Sep. Sci.*, 25 (2002) 167-169.
103. B. Chankvetadze, K. Lomsadze, D. Bergenthal, J. Breitkreuz, K. Bergander, G. Blaschke, Mechanistic studies on the opposite migration order of clenbuterol enantiomers in capillary electrophoresis with  $\beta$ -CD and single-isomer heptakis(2,3-diacyl-6-sulfo)- $\beta$ -CD, *Electrophoresis*, 22 (2001) 3178-3184.
104. B. Chankvetadze, I. Kartozia, J. Breitkreutz, M. Girod, M. Knobloch, Y. Okamoto, G. Blaschke, Comparative capillary chromatographic and capillary electrochromatographic enantioseparations using cellulose tris(3,5-dichlorophenylcarbamate) as chiral stationary phase, *J. Separation Sci.*, 24 (2001) 251-257.
105. B. Chankvetadze, I. Kartozia, Y. Okamoto, G. Blaschke, The effect of pore size of silica gel and concentration of buffer on capillary chromatographic and capillary electrochromatographic enantioseparations using cellulose tris(3,5-dichlorophenylcarbamate), *J. Separation Sci.*, 24, (2001) 635-642.
106. B. Chankvetadze, K. Lomsadze, G. Blaschke, Enantioseparation of antiarrhythmic drugs propafenone and diprafenone, their metabolites and analogs in capillary electrophoresis, *J. Separation Sci.*, 24, 2001, 795-801.
107. B. Chankvetadze, I. Kartozia, J. Breitkreutz, Y. Okamoto, G. Blaschke, Effect of organic solvent, electrolyte salt and a loading of cellulose tris(3,5-dichlorophenylcarbamate) on silica gel on enantioseparation characteristics in CEC, *Electrophoresis*, 22 (2001) 3327-3334.
108. S. Fanali, B. Chankvetadze, P. Catarcini, G. Blaschke, Enantioseparations by capillary electrochromatography, *Electrophoresis*, 22 (2001) 3131-3151.
109. I. Kartozia, M. Kanyonyo, T. Happaerts, D. Lambert, G. K. E. Scriba, B. Chankvetadze, Comparative HPLC enantioseparation of new chiral hydantoin derivatives on three different polysaccharide-type chiral stationary phases, *J. Pharm. Biomed. Anal.*, 27 (2002) 457-465.
110. B. Chankvetadze, I. Kartozia, C. Yamamoto, Y. Okamoto, Comparative enantioseparation of selected chiral drugs on four different polysaccharide-type chiral stationary phases using polar organic mobile phases, *J. Pharm. Biomed. Anal.*, 27 (2002) 467-478.
111. B. Chankvetadze, I. Kartozia, C. Yamamoto, Y. Okamoto, G. Blaschke, Comparative study on the application of capillary liquid chromatography and capillary electrochromatography for investigation of enantiomeric purity of contraceptive drug levonorgestrel. *J. Pharm. Biomed. Anal.* 30, 2003, 1897-1906.
112. B. Chankvetadze, N. Burjanadze, G. Blaschke, Enantioseparation of the anticoagulant drug phenprocoumon in capillary electrophoresis with UV and LIF detection and application of the method to urine samples, *Electrophoresis*, 22 (2001) 3281-3285.
113. B. Chankvetadze, N. Burjanadze, D. Bergenthal, J. Breitkreutz, K. Bergander, O. Kataeva, R. Fröhlich, G. Blaschke, Mechanistic study on the opposite migration order of the enantiomers of ketamine with  $\alpha$ - and  $\beta$ -cyclodextrin in capillary electrophoresis, *J. Sep. Sci.*, 25, 2002, 1155-1166.
114. B. Chankvetadze, Enantioseparation of chiral drugs and current status of electromigration techniques in this field, *J. Sep. Sci.* 24 (2001) 691-705.
115. A.M. Abushoffa, N. Burjanadze, G. Blaschke, J. Crommen, B. Chankvetadze, Comparative study on the enantioseparation of glutethimide using dual cyclodextrin

systems and cyclodextrin modified MEKC in capillary electrophoresis, *J. Sep. Sci.*, 25 (2002) 10-16.

116. B. Chankvetadze, N. Burjanadze, K. Bergander, G. Blaschke, Enantioseparation of glutethimide and its 5-OH-metabolite in capillary electrophoresis and study of selector-selectand interactions using 1D-ROESY spectrometry, *Electrophoresis*, 23 (2002) 1906-1911.
117. L. Chankvetadze, I. Kartozia, C. Yamamoto, B. Chankvetadze, G. Blaschke, Y. Okamoto, Enantioseparations in capillary liquid chromatography and capillary electrochromatography using cellulose tris(3,5-dimethylphenylcarbamate) as chiral stationary phase, *Electrophoresis* 23 (2002) 486-493.
118. G. Blaschke, B. Chankvetadze, Interaction between chiral drugs and cyclodextrins, Book chapter, *Affinity Capillary Electrophoresis in Pharmaceutics and Biopharmaceutics* (Ed-rs: R. Neubert, H.-H. Rüttinger), Marcel Dekker Inc., 2003, Chapter 8, pp. 175-210.
119. L. Chankvetadze, I. Kartozia, C. Yamamoto, B. Chankvetadze, G. Blaschke, Y. Okamoto, Enantioseparations in capillary liquid chromatography and capillary electrochromatography using amylose tris(3,5-dimethylphenylcarbamate) in aqueous-organic mobile phases, *J. Sep. Sci.*, 2002, 25 (10-11) 653-660.
120. B. Chankvetadze, N. Burjanadze, M. Santi, G. Massolini, G. Blaschke, Enantioseparation of tetramisole in capillary electrophoresis and application of the method to enantiomeric purity testing of veterinary drug formulation of L-levamisole, *J. Sep. Sci.*, 2002, 25 (12), 733-740.
121. B. Chankvetadze, N. Burjanadze, D. M. Maynard, K. Bergander, D. Bergenthal, G. Blaschke, Comparative enantioseparations with native  $\beta$ -cyclodextrin and heptakis-(2-O-methyl-3,6-di-O-sulfo)- $\beta$ -cyclodextrin in capillary electrophoresis, *Electrophoresis*, 2002, 23, 3027-3034.
122. G. Blaschke, M. Meyring, C. Mühlenbrock, B. Chankvetadze, Recent results on biotransformation of drugs: investigation of the in vitro biotransformation of thalidomide using a dual cyclodextrin system in capillary electrophoresis, *Il Farmaco*, 2002, 57, 551-554.
123. B. Chankvetadze, Enantioseparation in capillary chromatography and capillary electrochromatography using polysaccharide-type chiral stationary phases, Book chapter, G. Gübitz, M. Schmid (Ed-rs), *Methods in Molecular Biology*. Vol. 243: Chiral Separations: Methods and Protocols, Humana Press Inc., Totowa, NJ, USA, 2003, pp. 387-399 (Chapter 23).
124. B. Chankvetadze, Enantiomer migration order in chiral capillary electrophoresis, *Electrophoresis*, 2002, 23, 4022-4035.
125. B. Chankvetadze, Recent trends in enantioseparation of chiral drugs, Book Chapter (Ed-s: T. Dingermann, G. Folkers, D. Steinheilber) *Molecular Biology in Medicinal Chemistry*, Wiley-VCH, Chapter 7, pp. 181-210, 2003.
126. B. Chankvetadze, K. Lomsadze, N. Burjanadze, J. Breitkreutz, G. Pintore, M. Chessa, D. Bergenthal, K. Bergander, G. Blaschke, Comparative enantioseparations with native  $\beta$ -cyclodextrin, randomly acetylated  $\beta$ -cyclodextrin and heptakis-(2,3-di-O-acetyl)- $\beta$ -cyclodextrin in capillary electrophoresis, *Electrophoresis*, 2003, 24, 1083-1091.
127. B. Chankvetadze, N. Burjanadze, G. Blaschke, Enantioseparation of mefloquine and its analogues in capillary electrophoresis using various cyclodextrin type chiral selectors, *J. Pharm. Biomed. Anal.*, 2003, 32, 41-49.

128. B. Chankvetadze, C. Yamamoto, Y. Okamoto, Very fast enantioseparations in HPLC using cellulose tris(3,5-dimethylphenylcarbamate) as chiral stationary phase, *Chem. Lett.*, 2003, 32 (9), 850-851.
129. B. Chankvetadze, W. Lindner, G. Scriba, Enantiomer Separations in Capillary Electrophoresis in the Case of Equal Binding Constants of the Enantiomers with a Chiral Selector: Commentary on the Feasibility of the Concept. *Anal. Chem.* 76, 2004, 4256-4260.
130. S. Fanali, E. Camera, B. Chankvetadze, G. D'Orazio, M.G. Quaglia, Separation of tocopherols by nano-high Performance Liquid Chromatography, *J. Pharm. Biomed. Anal.*, 2004, 35, 331-338.
131. B. Chankvetadze, Combined approach using capillary electrophoresis and NMR spectroscopy for an understanding of enantioselective recognition mechanisms by cyclodextrins, *Rev. Chem. Soc.* 2004, 2004, 33, 337-347.
132. B. Chankvetadze, T. Ikai, C. Yamamoto, Y. Okamoto, High-performance liquid chromatographic enantioseparations on monolithic silica column containing covalently attached 3,5-dimethylphenylcarbamate derivative of cellulose, *J. Chromatogr. A*, 2004, 1042 (1-2) 55-60.
133. B. Chankvetadze, C. Yamamoto, N. Tanaka, K. Nakanishi, Y. Okamoto, Enantioseparations on monolithic silica capillary column modified with cellulose tris(3,5-dimethylphenylcarbamate), *J. Sep. Sci.*, 2004, 27, 905-911.
134. B. Chankvetadze, T. Kubota, T. Ikai, C. Yamamoto, N. Tanaka, K. Nakanishi, Y. Okamoto, High-performance liquid chromatographic enantioseparations on capillary columns containing crosslinked polysaccharide phenylcarbamate derivatives attached to monolithic silica), *J. Sep. Sc.*, 2006, 29 (13), 1988-1995.
135. I. Kartozia, G. D'Orazio, B. Chankvetadze, S. Fanali, Evaluation of cyclodextrins modified with dichloro-, dimethyl- and chloromethylphenylcarbamate groups as chiral stationary phases for capillary electrochromatography, *J. Cap. Elect. Microchip Technol.*, 2005, 9 (3-4), 31-38.
136. B. Chankvetadze, The application of cyclodextrins for enantioseparations, Book Chapter in H. Dodziuk (editor), *Cyclodextrins and Their Complexes (Chemistry, Analytical Methods, Applications)*, Wiley-VCH, 2006, pp. 119-146.
137. B. Chankvetadze, Principles of enantioseparations in electrokinetic chromatography, Book Chapter in: U. Pyell (editor) *Electrokinetic Chromatography: Theory, Instrumentation and Applications*, John Wiley & Sons, 2006, pp. 179-206.
138. B. Chankvetadze, Application of enantioselective electrokinetic chromatography, Book Chapter in: U. Pyell (editor) *Electrokinetic Chromatography: Theory, Instrumentation and Applications*, John Wiley & Sons, 2006, pp. 459-474.
139. B. Chankvetadze, Separation of chiral compounds by CE and MEKC with cyclodextrins, *Encyclopedia of Chromatography*, Edited by Jack Cazes, 2010, 3-rd Edition, v. 1, pp. 419-424.
140. B. Chankvetadze, C. Yamamoto, M. Kamigaito, N. Tanaka, K. Nakanishi, Y. Okamoto, High-performance liquid chromatographic enantioseparations on capillary columns containing monolithic silica modified with amylose tris(3,5-dimethylphenylcarbamate), *J. Chromatogr. A*, 1110 (1,2) 46-52, 2006
141. U. Conrad, B. Chankvetadze, G. K. E. Scriba, High performance liquid chromatographic separation of dipeptide and tripeptide stereoisomers using a chiral crown ether stationary phase, *J. Sep. Sci.* 2005, 28, 2275-2281.
142. M. Castro Puyana, K. Lomsadze, A. L. Crego, M. L. Marina, B. Chankvetadze, Separation of enantiomers of deprenyl with various CDs in CE and the effect of enantiomer migration order on enantiomeric impurity determination of selegiline in active ingredients and tablets, *Electrophoresis*, 2007, 28(3) 388-394.
143. B. Chankvetadze, Enantioseparations by using capillary electrophoretic techniques: The story of 20 and a few more years, *J. Chromatogr. A*, 1168 (2007) 45-70.
144. S. Fanali, G. D'Orazio, K. Lomsadze, B. Chankvetadze, Enantioseparations with cellulose(3-chloro-4-methylphenylcarbamate) in nano liquid chromatography and capillary electrochromatography, *J. Chromatogr. B*, 875 (2008) 296-303.

145. K.S.S. Dossou, P. Chiap, B. Chankvetadze, A.C. Servais, M. Fillet, J. Crommen, Enantiomer resolution of basic pharmaceuticals using cellulose tris(4-chloro-3-methylphenylcarbamate) as chiral stationary phase and polar organic mobile phases, *J. Chromatogr. A*, 1216 (2009) 7450-7455.
146. K. Lomsadze, A. B. Martinez-Giron, M. Castro-Puyana, L. Chankvetadze, A. L. Crego, A. Salgado, M. L. Marina, B. Chankvetadze, About the role of enantioselective selector-selectand interactions and the mobilities of temporary diastereomeric associates in enantiomer separations using capillary electrophoresis, *Electrophoresis*, 2009, 30, 2803-2811.
147. B. Chankvetadze, Separation of enantiomers with charged chiral selectors in CE, *Electrophoresis*, 2009, 30, S211-S221.
148. S. Fanali, G. D' Orazio, K. Lomsadze, B. Sh. Samakashvili, B. Chankvetadze, Enantioseparations with amylose(5-chloro-2-methylphenylcarbamate) in nano liquid chromatography and capillary electrochromatography, *J. Chromatography A*, 2010, 1217, 1166–1174.
149. A.-C. Servais, A. Rousseau, M. Fillet, K. Lomsadze, A. Salgado, J. Crommen, B. Chankvetadze, Separation of propranolol enantiomers by capillary electrophoresis using sulfated  $\beta$ -cyclodextrin derivatives in aqueous and nonaqueous electrolytes: Comparative CE and NMR study, *Electrophoresis*, 2010, 31, 1467-1474.
150. M. Merlani , V. Barbakadze, L. Amiranashvili, L. Gogilashvili, E. Kemertelidze, E. Yannakopoulou, K. Papadopoulos, B. Chankvetadze, Enantiomeric analysis of novel synthetic 3-(3,4-dihydroxyphenyl)-glyceric acid - basic monomeric moiety of a biologically active polyether from *Symphytum asperum* and *S. caucasicum*, *Chirality*, 22, 2010, 717-725.
151. B. Chankvetadze, Monolithic chiral stationary phases for liquid-phase enantioseparation techniques, *Journal of Separation Science*, 2010, 33, 305-314.
152. A.-C. Servais, A. Rousseau, M. Fillet, K. Lomsadze, A. Salgado, J. Crommen, B. Chankvetadze, Separation of propranolol enantiomers by using capillary electrophoresis with various cyclodextrins: Comparative CE and NMR studies, *Journal of Separation Science*, 2010, 33, 1617-1624.
153. K.S.S. Dossou, P. Chiap, B. Chankvetadze, A.-C. Servais, M. Fillet, J. Crommen, Optimization of chiral pharmaceuticals enantioseparation using a coated stationary phase with cellulose tris(4-chloro-3-methylphenylcarbamate) as chiral selector and non-aqueous polar mobile phase, *Journal of Separation Science*, 2010, 33, 1699-1707.
154. B. Chankvetadze, Chiral recognition and enantioseparation mechanisms in capillary electrokinetic chromatography, Chapter in the book edited by A. Berthold "Chiral Recognition in Separation Methods: Mechanisms and applications" Springer Verlag, 2010, pp. 97-152.
155. B. Chankvetadze, Monolithic chiral stationary phases for liquid-phase enantioseparation techniques, Chapter in the book "Monolithic silicas –Concepts, synthesis, characterization, modeling and applications in liquid phase separations by E. Machtejevas, N. Tanaka and K.K. Unger (editors) to be published in 2010, pp.231-248.
156. V. Barbakadze, L. Gogilashvili, L. Amiranashvili, M. Merlani, K. Mulkijanyan, M. Churadze, A. Salgado, B. Chankvetadze, Poly[3-(3,4-dihydroxyphenyl)glyceric acid] from *Anchusa italica* Retz. Roots, *Natural Product Communications*, 5(7), 2010, 1091-1095.
157. A. Hendrickx, D. Mangelings, B. Chankvetadze and Y. Vander Heyden Comparative enantioseparations of chiral pharmaceuticals with chiral stationary phases based on dimethyl- and chloromethylphenylcarbamates of polysaccharides in capillary electrochromatography. *Electrophoresis*, 2010, 31, 3207-3216.
158. L. Peng, S. Jayapalan, B. Chankvetadze, T. Farkas, Reversed phase chiral HPLC and LC/MS analysis with tris(Chloromethylphenylcarbamate) derivatives of cellulose and amylose as chiral stationary phases, *J. Chromatogr. A*, 1217, 2010, 6942-6955.

159. K. Lomsadze, A. Salgado, E. Calvo, J. A. López and B. Chankvetadze, Comparative NMR and MS studies on the mechanism of enantioseparation of propranolol with heptakis(2,3-diacyl-6-sulfo)- $\beta$ -cyclodextrin in capillary electrophoresis with aqueous and non-aqueous electrolytes, *Electrophoresis*, 2011, 32, 1156-1163.
160. E. Domínguez-Vega, A. L. Crego, K. Lomsadze, B. Chankvetadze, and M. L. Marina, Enantiomeric separation of FMOC-amino acids by nano-LC and CEC using a new chiral stationary phase, cellulose tris(3-chloro-4-methylphenylcarbamate), *Electrophoresis*, 2011, 32, 2700-2707.
161. E. Domínguez Vega, K. Lomsadze, L. Chankvetadze, A. Salgado, G. Scriba, E. Calvo, J. A. López, A. L. Crego, M. L. Marina and B. Chankvetadze, Separation of enantiomers of ephedrine by capillary electrophoresis using cyclodextrins as chiral selectors: Comparative CE and NMR studies, *Electrophoresis*, 2011, 32, 2640-2647.
162. K.S.S. Dossou, P.A. Edorh, P. Chiap, B. Chankvetadze, A.-C. Servais, M. Fillet, J. Crommen, LC method for the enantiomeric purity determination of S-amlodipine with the special emphasis on the reversal of the enantiomer elution order using chlorinated cellulose-based chiral stationary phases and polar non-aqueous mobile phases, *Journal of Separation Science*, 34(15), 2011, 1772-1780.
163. A. Hendrickx, D. Mangelings, B. Chankvetadze and Y. Vander Heyden, Updating a chiral separation strategy for non-acidic drugs with capillary electrochromatography applicable for both chlorinated and non-chlorinated polysaccharide selectors, *Electrophoresis*, 2011, 32, 2718-2726.
164. L. Chankvetadze, N. Ghibradze, M. Karchkhadze, L. Peng, T. Farkas, B. Chankvetadze, Enantiomer elution order reversal of FMOC-isoleucine by variation of mobile phase temperature and composition, *J. Chromatogr. A*, 1218 (2011), pp. 6554-6560.
165. K.S.S. Dossou, E. Farca, A.-C. Servais, P. Chiap, B. Chankvetadze, M. Fillet, J. Crommen, Optimization of the LC enantioseparation of chiral acidic compounds using cellulose tris(3-chloro-4-methylphenylcarbamate) as chiral selector and polar organic mobile phases, *J. Chromatogr. A*, 2012, 1234, 56-63.
166. V. Pérez-Fernández, E. Domínguez-Vega, B. Chankvetadze, A. L. Crego, M. Ángeles García, M. Luisa Marina, Evaluation of new cellulose-based chiral stationary phases Sepapak-2 and Sepapak-4 for the enantiomeric separation of pesticides by nano-LC and CEC, *J. Chromatogr. A*, 2012, 1234, 22-31.
167. K. Lomsadze, G. Jibuti, T. Farkas, B. Chankvetadze, Comparative high-performance liquid chromatography enantioseparations on polysaccharide based chiral stationary phases prepared by coating totally porous and core-shell silica particles, *J. Chromatogr. A*, 2012, 1234, 50-55.
168. B. Chankvetadze, Enantioseparations by High Performance Liquid Chromatography Using Polysaccharide-Based Chiral Stationary Phases, Book Chapter, Chiral Separations, 2<sup>nd</sup> edition, Editor. G.K.E. Scriba, Humana Press, Springer, in press.
169. B. Chankvetadze, Separation of Enantiomers, Book Chapter in: Handbook of Separation Science: Liquid Chromatography, Edited by S. Fanali, P. Haddad, C. Poole, and P. Schoenmakers, Elsevier, in press.
170. K. Lomsadze, E. Domínguez Vega, A. Salgado, A. L. Crego, G. K.E. Scriba, M. L. Marina, B. Chankvetadze, Separation of enantiomers of norephedrine by capillary electrophoresis using cyclodextrins as chiral selectors: Comparative CE and NMR studies, *Electrophoresis*, 2012, 33, 1637-1647.
171. K. Lomsadze, M. Merlani, V. Barbakadze, T. Farkas, B. Chankvetadze, Enantioseparation of Selected Chiral Epoxides with Polysaccharide-based Chiral Columns in High-performance Liquid Chromatography, *Chromatographia*, 2012, 75, 839-845.
172. G. Jibuti, A. Mskhiladze, N. Takaishvili, L. Chankvetadze, M. Karchkhadze, T. Farkas, B. Chankvetadze, HPLC separation of dihydropyridine derivatives enantiomers with emphasis on elution order using polysaccharide-based chiral columns, *J. Sep. Sci.*, 35 (2012) 2529-2537.

173. K. Si-Ahmed, Z. Aturki, B. Chankvetadze, S. Fanali, Evaluation of novel amylose and cellulose-based chiral stationary phases for the enantiomer separation of flavanones by means of nano-liquid chromatography, *Anal. Chim. Acta*, 738 (2012) 85-94.
174. A. Hendrickx, D. Mangelings, B. Chankvetadze, Y. Vander Heyden, Comparative enantioseparations of pharmaceuticals in capillary electrochromatography on polysaccharidebased chiral stationary phases containing selectors with or without chlorinated derivatives, *AgBioForum*, 15 (2012) 3207-3216.
175. S. Fanali, G. D' Orazio, T. Farkas, B. Chankvetadze, Comparative separation of enantiomers with totally porous and coreshell polysaccharide-based chiral stationary phases in nano liquid chromatography and capillary electrochromatography, *J. Chromatogr. A*, 1269 (2012) 136-142.
176. L. Chankvetadze, A.-C. Servais, M. Fillet, A. Salgado, J. Crommen, B. Chankvetadze, Comparative enantioseparation of talinolol in aqueous and non-aqueous capillary electrophoresis and study of related selector-selectand interactions by using nuclear magnetic resonance spectroscopy, *J. Chromatogr. A*, 1267 (2012) 206-216.
177. S. Samakashvili, A. Salgado, G. Scriba, B. Chankvetadze, Comparative enantioseparation of ketoprofen with trimethylated  $\alpha$ -,  $\beta$ - and  $\gamma$ -cyclodextrins in capillary electrophoresis and study of related selector-selectand interactions by using nuclear magnetic resonance spectroscopy, *Chirality*, 2013, 25, 79–88.
178. A. Pinaka, G. C. Vougioukalakis, D. Dimotikali, E. Yannakopoulou, B. Chankvetadze, K. Papadopoulos, Green Asymmetric Synthesis:  $\beta$ -Amino Alcohol-Catalyzed Direct Asymmetric Aldol Reactions in Aqueous Micelles, *Chirality*, 2013, 25, 119-125.
179. B. Chankvetadze, Recent developments on polysaccharide-based chiral stationary phases for liquid-phase separation of enantiomers, *J. Chromatogr. A*, 1269 (2012) 26– 51.
180. I. Matarashvili, L. Chankvetadze, S. Fanali, T. Farkas, B. Chankvetadze, HPLC separation of enantiomers of chiral arylpropionic acid derivatives with emphasis on elution order using polysaccharide-based chiral columns and normal-phase eluents. *J. Sep. Sci.*, 2013, 36, 140-147.
181. S. Fanali, S. Rocchi, B. Chankvetadze, Use of Novel Phenyl-Hexyl Core-Shell Particles in nano-Liquid Chromatography, *Electrophoresis*, in press.
182. F. Dong, J. Li, B. Chankvetadze, Y. Cheng, X. Liu, J. Xu, X. Chen, Y. Li, C. Bertucci, D. Tedesco, R. Zanasi, Y. Zheng, The chiral triazole fungicide difenoconazole: absolute stereochemistry, stereoisomer bioactivity, aquatic toxicity and environmental behavior in vegetable and soil, *Environmental Science & Technology*, accepted.
183. A. Mskhiladze, M. Karchkhadze, A. Dadianidze, S. Fanali, T. Farkas, B. Chankvetadze, Separation of enantiomers of selected chiral antimycotic drugs on polysaccharide-based chiral columns and polar organic mobile phases with the emphasis on the enantiomer elution order, *Chromatographia*, in press.

### წიგნები:

1. V. Okujava, B. Chankvetadze, *Chromatographic Methods for Quantitative Determination of Antiepileptic Drugs in Biological Fluids*, Tbilisi State University Press, 208 pp., 1993 (Russ.).
2. B. Chankvetadze, *Capillary Electrophoresis in Chiral Analysis*, John Wiley & Sons, Chichester, England, 1997, 555 pp.

3. B. Chankvetadze (Ed-r), Chiral Separations, Elsevier Science, Amsterdam, 2001, The Netherlands, 489 pp.

### პატენტები:

#### საბჭოთა კავშირის საავტორო მოწმობები:

1. Sh. Sidamonidze, G. Tsitsishvili, L. Akhalbedashvili, B. Chankvetadze, Removal of nitrogen oxides and carbon monoxide from gases, USSR patent 831, 166 (1981), Chem. Abstr., v. 95, 1981, 64443.
2. Sh. Sidamonidze, N. Tskhakaya, B. Chankvetadze, T. Gogiashvili, N. Vashakidze, K. Mchedlishvili, Manufacture of catalyst for removal of nitrogen oxides and carbon monoxide from gases, USSR patent. SU 1, 715, 395 (1992).

#### საერთაშორისო და საზღვარგარეთის ქვეყნის პატენტები:

3. Y. Okamoto, E. Yashima, B. Chankvetadze, Preparation of 3-chloro-5-methylphenyl isocyanate and its adducts with polysaccharides and their use in optical resolution, Jpn. Kokai Tokkyo Koho, Jp 08, 231, 489 [96, 231, 489] CLC07C265(12), Chem. Abstr. 126 (1997) Abstr. 7836. 1996.
4. G. Blaschke, B. Chankvetadze, M. Schulte, M. Girod, K. Krause, Packed capillaries especially for enantioseparations, German patent pending Nr 98002, P 198 07 063.2. patent No: WO 9942192 (WO 1999-EP 844) Published 1999 02 09 (2 Sept). Chem. Abstr. 131 (1999) 159326.
5. Y. Okamoto, B. Chankvetadze, C. Yamamoto, New column for separation of optical isomer, manufacturing method therefor, and separation method using the same, Application number: 2001-131869. Application date: 27.04.2001. JP2002323483
6. Y. Okamoto, B. Chankvetadze, C. Yamamoto, T. Wakita, Separation Column. Application number: 2001-155232. Application date: 24.05.2001. JP2002350413.
7. B. Chankvetadze, D. Bergenthal, H. Wennemer, Vorrichtung zur Trennung von Substanzgemischen mittels Flüssigchromatographie, Application number: 102 60 700.1. Application date: 24.12.2002. Anmeldenummer: 10260700. Veröffentlichungsdatum: 08.07.2004
8. Y. Okamoto, B. Chankvetadze, C. Yamamoto, Monolithic chiral columns for enantioseparation. Application number: 2003-15555414. Application date: May 30, 2003.
9. Y. Okamoto, B. Chankvetadze, C. Yamamoto, Immobilized monolithic chiral columns for enantioseparation. Application number: 2004-016952. Application date: January 26, 2004.
10. Y. Okamoto, C. Yamamoto, B. Chankvetadze, Separating agent for optical isomers, method of production thereof and separation column for optical isomers, EP 1 500 430 A3, date of filling 28.05.2004, Date of publication: A2 26.01.2005, A3 24.05.2006.
11. Y. Okamoto, T. Yamamoto, B. Chankvetadze, Separating agent for optical isomers, method of production thereof and separation column for optical isomers, JP2003155414, Date of publication 21.01.2005.
12. Y. Okamoto, C. Yamamoto, B. Chankvetadze, Separating agent for optical isomers, method of production thereof and separation column for optical isomers, US 2008/0167460 A1, Filed on 05.03.2008. Published 10.07.2008.

13. Y. Okamoto, C. Yamamoto, B. Chankvetadze, Separating agent for optical isomers, method of production thereof and separation column for optical isomers, US 2004/0262229 A1, date of filling 27.05.2004, Date of publication: 30.12.2004

შენიშვნა.

პატენტებიდან ზოგიერთი მიეკუთვნება ერთი და იგივე ოჯახის იაპონურ, ევროპის, ამერიკულ და საერთაშორეისო პატენტს.

## დანართი 2

### პატენტები:

#### საბჭოთა კავშირის საავტორო მოწმობები:

1. Sh. Sidamonidze, G. Tsitsishvili, L. Akhalbedashvili, B. Chankvetadze, Removal of nitrogen oxides and carbon monoxide from gases, USSR patent 831, 166 (1981), Chem. Abstr., v. 95, 1981, 64443.
2. Sh. Sidamonidze, N. Tskhakaya, B. Chankvetadze, T. Gogiashvili, N. Vashakidze, K. Mchedlishvili, Manufacture of catalyst for removal of nitrogen oxides and carbon monoxide from gases, USSR patent. SU 1, 715, 395 (1992).

#### საერთაშორისო და საზღვარგარეთის ქვეყნების პატენტები:

3. Y. Okamoto, E. Yashima, B. Chankvetadze, Preparation of 3-chloro-5-methylphenyl isocyanate and its adducts with polysaccharides and their use in optical resolution, Jpn. Kokai Tokkyo Koho, Jp 08, 231, 489 [96, 231, 489] CLCO7C265(12), Chem. Abstr. 126 (1997) Abstr. 7836. 1996.
4. G. Blaschke, B. Chankvetadze, M. Schulte, M. Girod, K. Krause, Packed capillaries especially for enantioseparations, German patent pending Nr 98002, P 198 07 063.2. patent No: WO 9942192 (WO 1999-EP 844) Published 1999 02 09 (2 Sept). Chem. Abstr. 131 (1999) 159326.
5. Y. Okamoto, B. Chankvetadze, C. Yamamoto, New column for separation of optical isomer, manufacturing method therefor, and separation method using the same, Application number: 2001-131869. Application date: 27.04.2001. JP2002323483
6. Y. Okamoto, B. Chankvetadze, C. Yamamoto, T. Wakita, Separation Column. Application number: 2001-155232. Application date: 24.05.2001. JP2002350413.
7. B. Chankvetadze, D. Bergenthal, H. Wennemer, Vorrichtung zur Trennung von Substanzgemischen mittels Flüssigchromatographie, Application number: 102 60 700.1. Application date: 24.12.2002. Anmeldenummer: 10260700. Veröffentlichungsdatum: 08.07.2004
8. Y. Okamoto, B. Chankvetadze, C. Yamamoto, Monolithic chiral columns for enantioseparation. Application number: 2003-15555414. Application date: May 30, 2003.
9. Y. Okamoto, B. Chankvetadze, C. Yamamoto, Immobilized monolithic chiral columns for enantioseparation. Application number: 2004-016952. Application date: January 26, 2004.
10. Y. Okamoto, C. Yamamoto, B. Chankvetadze, Separating agent for optical isomers, method of production thereof and separation column for optical isomers, EP 1 500 430 A3, date of filling 28.05.2004, Date of publication: A2 26.01.2005, A3 24.05.2006.
11. Y. Okamoto, T. Yamamoto, B. Chankvetadze, Separating agent for optical isomers, method of production thereof and separation column for optical isomers, JP2003155414, Date of publication 21.01.2005.
12. Y. Okamoto, C. Yamamoto, B. Chankvetadze, Separating agent for optical isomers, method of production thereof and separation column for optical isomers, US 2008/0167460 A1, Filed on 05.03.2008. Published 10.07.2008.
13. Y. Okamoto, C. Yamamoto, B. Chankvetadze, Separating agent for optical isomers, method of production thereof and separation column for optical isomers, US 2004/0262229 A1, date of filling 27.05.2004, Date of publication: 30.12.2004

შენიშვნა.

პატენტებიდან ზოგიერთი მიეკუთვნება ერთი და იგივე ოჯახის იაპონურ, ევროპის, ამერიკულ და საერთაშორების პატენტს.

## დანართი 4

### 50 პუბლიკაცია

1. B. Chankvetadze, E. Yashima, Y. Okamoto, Tris(chloro- and methyl-disubstituted phenylcarbamate)s of cellulose as chiral stationary phases for chromatographic enantioseparation, *Chem. Lett.*, 1993, (4) 617-620.
2. B. Chankvetadze, E. Yashima, Y. Okamoto, Chloro-methyl-phenylcarbamate derivatives of cellulose as chiral stationary phases for high performance liquid chromatography, *J. Chromatogr. A.*, 670 (1994), 39-49.
3. B. Chankvetadze, E. Yashima, Y. Okamoto, Dimethyl-, dichloro- and chloromethyl-phenylcarbamate derivatives of amylose as chiral stationary phases for high performance liquid chromatography, *J. Chromatogr. A.*, 694 (1995) 101-109.
4. B. Chankvetadze, L. Chankvetadze, Sh. Sidamonidze, E. Yashima, Y. Okamoto, High performance liquid chromatography enantioseparation of chiral pharmaceuticals using tris(chloro-methylphenylcarbamate)s of cellulose, *J. Pharm. Biomed. Anal.*, 14 (1996), 1295-1303.
5. B. Chankvetadze, G. Endresz and G. Blaschke, About some aspects of the use of charged cyclodextrins for capillary electrophoresis enantioseparation, *Electrophoresis*, 15 (1994), 804-807.
6. B. Chankvetadze, G. Endresz, D. Bergenthal, G. Blaschke, Enantioseparation of mianserine analogues using capillary electrophoresis with neutral and charged cyclodextrin buffer modifiers,  $^{13}\text{C}$  NMR study of the chiral recognition mechanism, *J. Chromatogr. A.*, 717 (1996) 245-253.
7. G. Endresz, B. Chankvetadze, D. Bergenthal, G. Blaschke, Comparative capillary electrophoresis and nuclear magnetic resonance studies of the chiral recognition of racemic metomidate with cyclodextrin hosts, *J. Chromatogr. A*, 732 (1996) 133-142.
8. B. Chankvetadze, G. Schulte, G. Blaschke, Reversal of enantiomer elution order in capillary electrophoresis using charged and neutral cyclodextrins, *J. Chromatogr. A*, 732 (1996) 183-186.
9. B. Chankvetadze, G. Endresz, G. Blaschke, Charged cyclodextrin derivatives as chiral selectors in capillary electrophoresis, *Chem. Soc. Rev.*, 25 (1996) 141-153.
10. B. Chankvetadze, G. Endresz, G. Blaschke, M. Juza, H. Jakubetz, V. Schurig, Analysis of charged cyclomalto-oligosaccharide (cyclodextrin) derivatives by IS-, MALDI-TOF, FAB-MS and CE, *Carbohydr. Res.*, 287 (1996) 139-155.
11. B. Chankvetadze, G. Schulte, G. Blaschke, Nature and design of enantiomer migration order in chiral capillary electrophoresis, *Enantiomer*, 2 (1997) 157-179.
12. B. Chankvetadze, M. Saito, E. Yashima, Y. Okamoto, Enantioseparation of atropisomeric 1,1'-binaphthyl-2,2'-diyl-hydrogen phosphate in capillary electrophoresis using di- and oligosaccharides as chiral selectors, *Chirality*, 10 (1998) 134-139.
13. S. Fanali, C. Desiderio, G. Schulte, S. Heitmeier, D. Strickmann, B. Chankvetadze, G. Blaschke, Chiral capillary electrophoresis-electrospray mass spectrometry coupling using vancomycin as chiral selector, *J. Chromatogr. A*, 800 (1998) 69-76.
14. B. Chankvetadze, Separation selectivity in chiral capillary electrophoresis with charged selectors, *J. Chromatogr. A* 792 (1997) 269-295.

15. B. Chankvetadze, Recent trends in chiral separations using capillary electromigration techniques, *Trends Analytical Chemistry (TrAC)*, 18 (1999) 485-498.
16. K. Krause, M. Girod, B. Chankvetadze, G. Blaschke, Enantioseparations in normal- and reversed-phase nano-HPLC and capillary electrochromatography using polyacrylamide and polysaccharide derivatives as chiral stationary phases, *J. Chromatogr. A* 837 (1999) 51-63.
17. B. Chankvetadze, G. Blaschke, Selector-selectand interactions in chiral capillary electrophoresis, *Electrophoresis*, 20 (1999) 2592-2604.
18. M. Meyring, B. Chankvetadze, G. Blaschke, Enantioseparation of thalidomide and its metabolites using capillary electrophoresis with various cyclodextrins and their combinations as chiral buffer additives, *Electrophoresis*, 20 (1999) 2425-2431.
19. M. Girod, B. Chankvetadze, G. Blaschke, Enantioseparations in nonaqueous capillary electrochromatography using polysaccharide type chiral stationary phase, *J. Chromatogr. A* 887 (2000) 439-455.
20. M. Meyring, B. Chankvetadze, G. Blaschke, Simultaneous separation and enantioseparation of thalidomide and its hydroxylated metabolites using high performance liquid chromatography in common-size columns, capillary liquid chromatography and nonaqueous capillary electrochromatography. *J. Chromatogr. A*, 876 (2000) 157-167.
21. B. Chankvetadze, G. Pintore, N. Burjanadze, D. Bergenthal, K. Bergander, J. Breitkreutz, C. Mühlenbrock, G. Blaschke, Mechanistic study of opposite migration order of dimethindene enantiomers in capillary electrophoresis in the presence of native  $\alpha$ -CD and heptakis-(2,3,6-tri-O-methyl)- $\alpha$ -CD. *J. Chromatogr. A*, 875 (2000) 455-469.
22. B. Chankvetadze, N. Burjanadze, G. Pintore, D. Bergenthal, K. Bergander, C. Mühlenbrock, J. Breitkreutz, G. Blaschke, Separation of brompheniramine enantiomers by capillary electrophoresis and study of chiral recognition mechanisms of cyclodextrins using NMR-spectroscopy, UV-spectrometry, ESI-MS and x-ray crystallography, *J. Chromatogr. A*, 875 (2000) 471-484.
23. B. Chankvetadze, M. Fillet, N. Burjanadze, D. Bergenthal, C. Bergander, H. Luftmann, J. Crommen, G. Blaschke, Enantioseparation of aminoglutethimide with cyclodextrins in capillary electrophoresis and studies of selector-selectand interactions using NMR spectroscopy and electrospray ionization mass spectrometry, *Enantiomer*, 5 (2000) 313-322.
24. G. Blaschke, B. Chankvetadze, Enantiomer separation of drugs by capillary electromigration techniques, *J. Chromatogr. A*, 875 (2000) 3-25.
25. B. Chankvetadze, C. Yamamoto, Y. Okamoto, Enantioseparations using cellulose tris(3,5-dichlorophenylcarbamate) in high-performance liquid chromatography in common size and capillary columns: Potential for screening of chiral compounds. *Combinatorial Chemistry and High Throughput Screening*, (2000), 3, 497-508.
26. B. Chankvetadze, C. Yamamoto, Y. Okamoto, Extremely high enantiomer recognition in HPLC separation of racemic 2-(benzylsulfinyl)benzamide using cellulose tris (3,5-dichlorophenylcarbamate) as a chiral stationary phase, *Chem. Lett.*, 2000, 1176-1177.
27. B. Chankvetadze, G. Blaschke, Enantioseparations in capillary electromigration techniques: Recent developments and future trends, *J. Chromatogr. A*, 906, (2001), 309-363.

28. B. Chankvetadze, C. Yamamoto, Y. Okamoto, Enantioseparation of selected chiral sulfoxides using polysacchride-type chiral stationary phases and polar organic, polar aqueous-organic and normal-phase eluents, *J. Chromatogr. A*, 922 (2001) 127-137.
29. B. Chankvetadze, G. Blaschke, Enantioseparations using capillary electromigration techniques in nonaqueous buffers, *Electrophoresis*, 21 (2000), 4159-4178.
30. M. Girod, B. Chankvetadze, Y. Okamoto, G. Blaschke, Highly efficient enantioseparationsin non-aqueous capillary electrochromatography using cellulose tris(3,5-dichlorophenylcarbamate) as chiral stationary phase, *J. Sep. Sci.*, 24 (2001) 27-34.
31. T. Wakita, B. Chankvetadze, C. Yamamoto, Y. Okamoto, Chromatographic enantioseparation on capillary column containing covalently bound cellulose (3,5-dichlorophenylcarbamate) as chiral stationary phase, *J. Sep. Sci.*, 25 (2002) 167-169.
32. B. Chankvetadze, K. Lomsadze, D. Bergenthal, J. Breitkreuz, K. Bergander, G. Blaschke, Mechanistic studies on the opposite migration order of clenbuterol enantiomers in capillary electrophoresis with  $\square$ -CD and single-isomer heptakis(2,3-diacetyl-6-sulfo)- $\square$ -CD, *Electrophoresis*, 22 (2001) 3178-3184.
33. B. Chankvetadze, K. Lomsadze, G. Blaschke, Enanatioseparation of antiarrhythmic drugs propafenone and diprafenone, their metabolites and analogs in capillary electrophoresis, *J. Separation Sci.*, 24, 2001, 795-801.
34. L. Chankvetadze, I. Kartozia, C. Yamamoto, B. Chankvetadze, G. Blaschke, Y. Okamoto, Enantioseparations in capillary liquid chromatography and capillary electrochromatography using amylose tris(3,5-dimethylphenylcarbamate) in aqueous-organic mobile phases, *J. Sep. Sci.*, 2002, 25 (10-11) 653-660.
35. B. Chankvetadze, Enantiomer migration order in chiral capillary electrophoresis, *Electrophoresis*, 2002, 23, 4022-4035.
36. B. Chankvetadze, C. Yamamoto, Y. Okamoto, Very fast enantioseparations in HPLC using cellulose tris(3,5-dimethylphenylcarbamate) as chiral stationary phase, *Chem. Lett.*, 2003, 32 (9), 850-851.
37. B. Chankvetadze, W. Lindner, G. Scriba, Enantiomer Separations in Capillary Electrophoresis in the Case of Equal Binding Constants of the Enantiomers with a Chiral Selector: Commentary on the Feasibility of the Concept. *Anal. Chem.* 76, 2004, 4256-4260.
38. B. Chankvetadze, C. Yamamoto, N. Tanaka, K. Nakanishi, Y. Okamoto, Enantioseparations on monolithic silica capillary column modified with cellulose tris(3,5-dimethylphenylcarbamate), *J. Sep. Sci.*, 2004, 27, 905-911.
39. B. Chankcetadze, Separation of chiral compounds by CE and MEKC with cyclodextrins, *Encyclopedia of Chromatography*, Edited by Jack Cazes, 2010, 3-rd Edition, v. 1, pp. 419-424.
40. B. Chankvetadze, Enantioseparations by using capillary electrophoretic techniques: The story of 20 and a few more years, *J. Chromatogr. A*, 1168 (2007) 45-70.
41. S. Fanali, G. D'Orazio, K. Lomsadze, B. Chankvetadze, Enantioseparations with cellulose(3-chloro-4-methylphenylcarbamate) in nano liquid chromatography and capillary electrochromatography, *J. Chromatogr. B*, 875 (2008) 296-303.
42. K. Lomsadze, A. B. Martinez-Giron, M. Castro-Puyana, L. Chankvetadze, A. L. Crego, A. Salgado, M. L. Marina, B. Chankvetadze, About the role of enantioselective selector-selectand interactions and the mobilities of temporary diastereomeric associates in enantiomer separations using capillary electrophoresis, *Electrophoresis*, 2009, 30, 2803-2811.
43. B. Chankvetadze, Separation of enantiomers with charged chiral selectors in CE, *Electrophoresis*, 2009, 30, S211-S221.
44. A.-C. Servais, A. Rousseau, M. Fillet, K. Lomsadze, A. Salgado, J. Crommen, B. Chankvetadze, Separation of propranolol enantiomers by capillary electrophoresis using

- sulfated  $\square$ -cyclodextrin derivatives in aqueous and nonaqueus electrolytes: Comparative CE and NMR study, Electrophoresis, 2010, 31, 1467-1474.
45. L. Chankvetadze, N. Ghibradze, M. Karchkhadze, L. Peng, T. Farkas, B. Chankvetadze, Enantiomer elution order reversal of FMOC-isoleucine by variation of mobile phase temperature and composition, J. Chromatogr. A, 1218 (2011), pp. 6554-6560.
46. K. Lomsadze, G. Jibuti, T. Farkas, B. Chankvetadze, Comparative high-performance liquid chromatography enantioseparations on polysaccharide based chiral stationary phases prepared by coating totally porous and core-shell silica particles, J. Chromatogr. A, 2012, 1234, 50-55.
47. B. Chankvetadze, Recent developments on polysaccharide-based chiral stationary phases for liquid-phase separation of enantiomers, J. Chromatogr. A, 1269 (2012) 26– 51.

#### წიგნები:

48. V. Okujava, B. Chankvetadze, Chromatographic Methods for Quantitative Determination of Antiepileptic Drugs in Biological Fluids, Tbilisi State University Press, 208 pp., 1993 (Russ.).
49. B. Chankvetadze, Capillary Electrophoresis in Chiral Analysis, John Wiley & Sons, Chichester, England, 1997, 555 pp.
50. B. Chankvetadze (Ed-r), Chiral Separations, Elsevier Science, Amsterdam, 2001, The Netherlands, 489 pp.