

**Advances in drug testing using capillary electrophoresis and native fluorescence**  
**Bolkvadze, Vyacheslav; Saar-Reismaa, Piret; Kaljurand, Mihkel; Vaher, Merike; Gorbatšova, Jelena; Mazina-Šinkar, Jekaterina** V4 Symposium Flow Analysis & Capillary Electrophoresis : abstracts 2021 / p. 64  
[https://v4face.project.uj.edu.pl/documents/144328876/0/Book\\_of\\_abstracts\\_FACE+2020.pdf/d09dca39-a279-47c4-90e3-72f05bcd4a1](https://v4face.project.uj.edu.pl/documents/144328876/0/Book_of_abstracts_FACE+2020.pdf/d09dca39-a279-47c4-90e3-72f05bcd4a1)

#### **Autosampler for portable capillary electrophoresis**

**Ružicka, Martin; Kaljurand, Mihkel; Gorbatšova, Jelena; Mazina-Šinkar, Jekaterina** Journal of chromatography A 2022 / art. 463619 <https://doi.org/10.1016/j.chroma.2022.463619> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **B-rühma vitamiinide analüüs reaalsetes proovides kapilaarelektroforeesi meetodil**

**Mazina, Jekaterina; Knjazeva, Tatjana; Gorbatšova, Jelena; Hälvlin, Kristel; Kaljurand, Mihkel** XXXI Eesti keemiateadus konverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 55 aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 55

#### **Cannabinoids ( $\Delta 9$ -THC and CBD) quantitative analysis by in-situ portable drug analyzer Drug Hunter**

**Gorbatšova, Jelena; Bolkvadze, V; Vaher, Merike; Halling, Evelin; Mazina-Šinkar, Jekaterina** Flow Analysis XV, Krakow, Poland, June 26 - July 1, 2022 : book of abstracts 2022 / p. 155  
[https://flowanalysis2022.confer.uj.edu.pl/documents/148482257/0/ksi%C4%85%C5%BCka+2022-05-28+str+numeracja+od+stopki+spad3mm+26\\_06+g+16.pdf/151f7dba-0b67-4e9b-af55-3f042f9b55ed](https://flowanalysis2022.confer.uj.edu.pl/documents/148482257/0/ksi%C4%85%C5%BCka+2022-05-28+str+numeracja+od+stopki+spad3mm+26_06+g+16.pdf/151f7dba-0b67-4e9b-af55-3f042f9b55ed)

#### **Cannabinoids ( $\Delta 9$ -THC and CBD) quantitative analysis by in-situ portable drug analyzer Drug Hunter**

**Gorbatšova, Jelena; Bolvardze, Vyacheslav; Vaher, Merike; Halling, Evelin; Mazina-Šinkar, Jekaterina** Flow Analysis XV, Krakow, Poland, June 26 - July 1, 2022 : book of abstracts 2022 / p. 155  
[https://flowanalysis2022.confer.uj.edu.pl/documents/148482257/0/ksi%C4%85%C5%BCka+2022-05-28+str+numeracja+od+stopki+spad3mm+26\\_06+g+16.pdf/151f7dba-0b67-4e9b-af55-3f042f9b55ed](https://flowanalysis2022.confer.uj.edu.pl/documents/148482257/0/ksi%C4%85%C5%BCka+2022-05-28+str+numeracja+od+stopki+spad3mm+26_06+g+16.pdf/151f7dba-0b67-4e9b-af55-3f042f9b55ed)

#### **Capillary electrophoresis as a monitoring tool for flow composition determination**

**Kaljurand, Mihkel; Saar-Reismaa, Piret; Vaher, Merike; Gorbatšova, Jelena; Mazina-Šinkar, Jekaterina** Molecules 2021 / art. 4918, 12 p. : ill <https://doi.org/10.3390/molecules26164918> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **Capillary electrophoresis sensitivity enhancement based on adaptive moving average method**

**Drevinskas, Tomas; Telksnys, Laimutis; Maruška, Audrius; Gorbatšova, Jelena; Kaljurand, Mihkel** Analytical chemistry 2018 / p. 6773-6780 : ill <https://doi.org/10.1021/acs.analchem.8b00664> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **Characterization of bioactive compounds contained in vegetables of the Solanaceae family by capillary electrophoresis**

**Helmja, Kati; Vaher, Merike; Gorbatšova, Jelena; Kaljurand, Mihkel** Proceedings of the Estonian Academy of Sciences. Chemistry 2007 / 4, p. 172-186 : ill

#### **Chloride, bromide, and TFA determination in the mixture of ionic liquids by CE-C4D**

**Gorbatšova, Jelena; Kuhtinskaja, Maria; Halling, Evelin; Mazina-Šinkar, Jekaterina** V4 Symposium FLOW ANALYSIS & CAPILLARY ELECTROPHORESIS, Krakow, June 28 – July 1, 2021 : abstracts 2021 / 1 p

#### **Comparison of the contents of various antioxidants of sea buckthorn berries using CE**

**Gorbatšova, Jelena; Lõugas, Tiina; Vokk, Raivo; Kaljurand, Mihkel** Electrophoresis 2007 / p. 4136-4142 : ill

#### **Compensation of the baseline temperature fluctuations for autonomous CE–C4D instrument working in harsh environments**

**Drevinskas, Tomas; Telksnys, Laimutis; Maruška, Audrius; Gorbatšova, Jelena; Kaljurand, Mihkel** Electrophoresis 2018 / p. 2877-2883 : ill <https://doi.org/10.1002/elps.201800132> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **Complete capillary electrophoresis process on a drone : towards a flying micro-lab**

**Drevinskas, Tomas; Maruška, Audrius; Girdauskas, Valdas; Dūda, Gediminas; Gorbatšova, Jelena; Kaljurand, Mihkel** Analytical Methods 2020 / p. 4977 - 4986 <https://doi.org/10.1039/d0ay01220c> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **Complex study of bioactive compounds in eggplant (*Solanum melongena*)**

**Helmja, Kati; Gorbatšova, Jelena; Vaher, Merike; Püssa, Tönu; Kaljurand, Mihkel** 4th Nordic Separation Science Society (NoSSS) International Conference : Kaunas, August 26-29, 2007 : abstracts book 2007 / p. 77

#### **Design and applications of miniaturized, portable LED based colorimeter**

**Drevinskas, Tomas; Maruška, Audrius; Gladkauskas, Eimantas; Telksnys, Laimutis; Girdauskas, Valdas; Gorbatšova, Jelena; Kaljurand, Mihkel; Ragažinskienė, Ona** Chemija 2018 / p. 209 - 218 <https://doi.org/10.6001/chemija.v29i4.3836> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Determination of carbohydrates in cellulose and enzymatically pretreated wood fractions using capillary electrophoresis**  
Vaher, Merike; Helmja, Kati; Käspere, Andres; Kudrjašova, Marina; Gorbatšova, Jelena; Kaljurand, Mihkel Program and abstract book : Nordic Separation Science Society 6th Conference : Riga, Latvia, August 24th-27th, 2011 2011 / p. 98

**Determination of vitamin composition in sea buckthorn (*Hippophae rhamnoides*) extracts by capillary electrophoresis**  
Gorbatšova, Jelena; Vaher, Merike HPLC 2007 Symposium : Ghent, Belgium, June 17-21, 2007 : abstract book 2007 / p. 377

**Development of methods for the CE analysis of plant phenolic compounds and vitamins = Kapillaarelektroforeesil põhinevate meetodite väljatöötamine taimsete fenoolsete ühendite ja vitamiinide analüüsiks**  
Gorbatšova, Jelena 2011 <https://digi.lib.ttu.ee/l/?640>

**Development of sensitive fluorescence detector for determination of cannabis abuse in saliva by capillary electrophoresis**  
Mazina, Jekaterina; Tretjakova, Anastassia; Saar-Reismaa, Piret; Gorbatšova, Jelena; Kulp, Maria; Vaher, Merike; Erme, Enn; Kaljurand, Mihkel 18th International Symposium on Advanced in Extraction Technologies (ExTech'2016) & the 22nd International Symposium on Separation Science (ISSS'2016), July 3-6, 2016, Torun, Poland : abstract book 2016 / p. 176-177

**Digital microfluidic sampler for a portable capillary electropherograph**  
Gorbatšova, Jelena; Jaanus, Martin; Kaljurand, Mihkel Analytical chemistry 2009 / p. 8590-8595 : ill

**Digital microfluidic sampler for capillary electrophoresis**  
Gorbatšova, Jelena; Jaanus, Martin; Kuuskmäe, Edur; Kaljurand, Mihkel NoSSS2009 : 5th Conference on Separation and Related Techniques by Nordic Separation Science Society : 26-29 August, 2009, Tallinn University of Technology, Estonia : abstract book and program 2009 / p. 66 : ill

**Digital microfluidics platform for interfacing solid-liquid extraction column with portable capillary electropherograph for analysis of soil amino acids**  
Gorbatšova, Jelena; Jaanus, Martin; Vaher, Merike; Kaljurand, Mihkel Electrophoresis 2016 / p. 472-475 : ill  
<https://doi.org/10.1002/elps.201500284> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Electrowetting on dielectric actuation of droplets with capillary electrophoretic zones for MALDI mass spectrometric analysis**  
Gorbatšova, Jelena; Borissova, Maria; Kaljurand, Mihkel Electrophoresis 2012 / p. 2682-2688 : ill  
<https://pubmed.ncbi.nlm.nih.gov/22965712/>

**Electrowetting-on-dielectric actuation of droplets with capillary electrophoretic zones for off-line mass spectrometric analysis**  
Gorbatšova, Jelena; Borissova, Maria; Kaljurand, Mihkel Journal of chromatography A 2012 / p. 9-15 : ill  
<https://pubmed.ncbi.nlm.nih.gov/22965712/>

**Evaluation of different operating modes of an autosampler for portable capillary electrophoresis**  
Kaljurand, Mihkel; Ružicka, Martin; Gorbatšova, Jelena; Mazina-Šinkar, Jekaterina Journal of Chromatography A 2023 / art. 464201 <https://doi.org/10.1016/j.chroma.2023.464201> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Future perspective of in situ soil analysis**  
Leinus, Mari-Liis; Jõul, Piia; Růžička, Martin; Gorbatšova, Jelena; Vaher, Merike; Shimmo, Ruth; Mazina-Šinkar, Jekaterina Proceedings 2023 / art. 10 <https://doi.org/10.3390/proceedings2023092010>

**A gas chromatograph for citizen science**  
Kaljurand, Mihkel; Gorbatšova, Jelena; Mazina-Šinkar, Jekaterina Microchemical journal 2021 / art. 106195, 6 p. : ill  
<https://doi.org/10.1016/j.microc.2021.106195> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Improved C5D electronic realization of conductivity detector for capillary electrophoresis**  
Jaanus, Martin; Udal, Andres; Kukk, Vello; Umbleja, Kadri; Gorbatšova, Jelena; Mölder, Lauri Elektronika ir elektrotehnika = Electronics and electrical engineering 2016 / p. 29-32 : ill <https://doi.org/10.5755/j01.eie.22.3.15311> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**The influence of organic solvents on phenylethylamines in capillary zone electrophoresis**  
Bolkvadze, Vyacheslav; Bondar, Denys; Vaher, Merike; Halling, Evelin; Gorbatšova, Jelena; Mazina-Šinkar, Jekaterina Journal of chromatography A 2022 / art. 463169, 9 p. : ill <https://doi.org/10.1016/j.chroma.2022.463169> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Musta, punase, rohelise ja valge tee aroomide eraldamine ja uurimine**  
Gorbatšova, Jelena; Orav, Anne XXIX Eesti keemiatäiendus : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 13-14

## Narkotestri arendamine narkootikumide tuvastamiseks süljes

Saar-Reismaa, Piret; Erme, E.; Kulp, Maria; Gorbatšova, Jelena; Kaljurand, Mihkel; Vaher, Merike; Mazina-Šinkar,

Jekaterina XXXIV Eesti keemiapäevad : 100. aastapäeva teaduskonverentsi teesid 2019 / lk. 27

[https://www.estet.ee/record=b5208044\\*est](https://www.estet.ee/record=b5208044*est)

## New developments in separation science will help to contribute to the democratisation of analytical chemistry

Kaljurand, Mihkel; Ružicka, Martin; Gorbatšova, Jelena; Mazina-Šinkar, Jekaterina Microchemical journal 2023 / Art. 109443

<https://doi.org/10.1016/j.microc.2023.109443> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

## Nonaqueous CE using contactless conductivity detection and ionic liquids as BGEs in ACN

Borissova, Maria; Gorbatšova, Jelena; Ebber, Arkadi; Kaljurand, Mihkel; Koel, Mihkel; Vaher, Merike Electrophoresis 2007 / p. 3600-3605 : ill <https://pubmed.ncbi.nlm.nih.gov/17893951/>

## Portable automated handheld sample collection-preparation instrument for airborne volatile substances

Bimbiraitė-Survilienė, Kristina; Drevinskas, Tomas; Maruska, Audrius; Kornysova, Olga; Gorbatšova, Jelena; Ihara, Hirotaka;

Kaljurand, Mihkel Microchemical journal 2020 / art. 105576 <https://doi.org/10.1016/j.microc.2020.105576> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

## Portable fully automated oral fluid extraction device for illegal drugs

Ružicka, Martin; Kaljurand, Mihkel; Gorbatšova, Jelena; Vaher, Merike; Mazina-Šinkar, Jekaterina Talanta 2022 / art. 123389 <https://doi.org/10.1016/j.talanta.2022.123389> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

## Programmeeritav tilksisend kapillaarelektroforeesis

Gorbatšova, Jelena; Jaanus, Martin; Kaljurand, Mihkel XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 29

## Sample preparation for CE-DAD analysis of the water soluble vitamins in food products

Mazina, Jekaterina; Gorbatšova, Jelena Procedia chemistry 2010 / p. 46-53 : ill

<https://www.sciencedirect.com/science/article/pii/S1876619609004057>

## Sea buckthorn as a tool for biomedicine or home remedy

Lõugas, Tiina; Gorbatšova, Jelena; Kaljurand, Mihkel; Kravets, Marina; Vokk, Raivo Food and nutrition = Toit ja toitumine. XVII : book of abstracts : the 5th Baltic Conference on Food Science and Technology : Foodbalt-2010 2010 / p. 107-109

## Separation of ionic liquids in non-aqueous capillary electrophoresis using contactless conductivity detector

Vaher, Merike; Gorbatšova, Jelena; Koel, Mihkel; Kaljurand, Mihkel HPLC 2007 Symposium : Ghent, Belgium, June 17-21, 2007 : abstract book 2007 / p. 363

## Simultaneous determination of water-soluble vitamins by capillary electrophoresis combined with MALDI-TOF

Mazina, Jekaterina; Gorbatšova, Jelena; Knjazeva, Tatjana; Kaljurand, Mihkel NoSSS2009 : 5th Conference on Separation and Related Techniques by Nordic Separation Science Society : 26-29 August, 2009, Tallinn University of Technology, Estonia : abstract book and program 2009 / p. 117

## The development of a handheld automatic drugmeter for quantitative analysis of γ-hydroxybutyric acid

Ružička, Martin; Kaljurand, Mihkel; Gorbatšova, Jelena; Vaher, Merike; Halling, Evelin; Jaanus, Martin; Mazina-Šinkar, Jekaterina Flow Analysis XV, Krakow, Poland, June 26 - July 1, 2022 : book of abstracts 2022 / p. 156 [Kogumik](#)