

Analysis of CWA degradation products by portable capillary electrophoretic analyser

Komissarova, T.; Kulp, Maria HPLC 2007 Symposium : Ghent, Belgium, June 17-21, 2007 : abstract book 2007 / ? p

Analysis of psychoactive compounds in oral fluid by capillary electrophoresis = Psühhoaktiivsete ühendite analüüs süljes kapillaarelektroforeesi meetodil

Saar-Reismaa, Piret 2020 <https://digikogu.taltech.ee/et/Item/b7a6fb1d-5df0-4250-afd4-8323e65f3b5c> kookuvõte: Uudne narkotester leiab Eesti enim levinud uimastid veerand tunniga / novaator.err.ee

Analysis of total phenols, sugars, and mineral elements in colored tubers of solanum tuberosum L.

Saar-Reismaa, Piret; Kotkas, Katrin; Rosenberg, Viive; Kulp, Maria; Kuhtinskaja, Maria; Vaher, Merike Foods 2020 / art. 1862 <https://doi.org/10.3390/foods9121862> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Antibacterial Properties of Submerged Cultivated Fomitopsis pinicola, Targeting Gram-Negative Pathogens, Including Borrelia burgdorferi

Bragina, Olga; Kuhtinskaja, Maria; Elisashvili, Vladimir; Asatiani, Mikheil; Kulp, Maria Sci 2025 / art. 104 <https://doi.org/10.3390/sci7030104>

Anticancer Effect of the Iridoid Glycoside Fraction from Dipsacus fullonum L. Leaves

Kuhtinskaja, Maria; Bragina, Olga; Kulp, Maria; Vaher, Merike Natural product communications 2020 / p. 1-6 <https://doi.org/10.1177/1934578X20951417> Journal metrics at Scopus Article at Scopus Journal metrics at Scopus Article at WOS

Antifungal activity of medicinal mushrooms and optimization of submerged culture conditions for Schizophyllum commune (Agaricomycetes)

Berikashvili, Violeta; Khardziani, Tamar; Kobakhidze, Aza; Kulp, Maria; Kuhtinskaja, Maria; Lukk, Tiit; Gargano, Maria; Venturella, Giuseppe; Kachlishvili, Eka; Metreveli, Eva; Elisashvili, Vladimir; Asatiani, Mikheil International journal of medicinal mushrooms 2023 / p. 1-21 <https://doi.org/10.1615/IntJMedMushrooms.2023049836> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Application of polyether ether ketone capillary for electrophoretic separation of complicated biological samples

Komissarova, T.; Kulp, Maria; Kaljurand, Mihkel Proceedings of the 22nd International Symposium on Microscale Bioseparations and Methods for Systems Biology : March 9-13, 2008 : Berlin, Germany 2008 / ? p

Authentication of medicinal cannabis by electrophoretic fingerprints

Mazina, Jekaterina; Saar-Reismaa, Piret; Kuhtinskaja, Maria; Kaljurand, Mihkel; Kulp, Maria; Vaher, Merike 40th International Symposium on Capillary Chromatography and 13th GC×GC Symposium : May 29 - June 03, 2016, Riva del Garda Fierecongressi, Riva del Garda, Italy : abstract book 2016 / p. 475

Bioremediation of lindane contaminated soil: Exploring the potential of Actinobacterial strains

Usmani, Zeba; Kulp, Maria; Lukk, Tiit Chemosphere 2021 / art. 130468, 12 p. : ill <https://doi.org/10.1016/j.chemosphere.2021.130468> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Can selenium levels act as a marker of colorectal cancer risk?

Lener, Marcin R.; Kulp, Maria; Viitak, Anu BMC cancer 2013 / p. 1-6 : ill <https://doi.org/10.1186/1471-2407-13-214> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Capillary electrophoresis with led-induced native fluorescence detection for determination of isoquinoline alkaloids and their cytotoxicity in extracts of Chelidonium majus L.

Kulp, Maria; Bragina, Olga; Kogerman, Priit; Kaljurand, Mihkel Journal of chromatography A 2011 / p. 5298-5304 : ill

Capillary electrophoretic monitoring of biochemical reaction kinetics = Biokeemiliste reaktsioonide kineetika kapillaarelektroforeetilise seire

Kulp, Maria 2006 <https://digi.lib.ttu.ee/i/?98> https://www.ester.ee/record=b2144683*est

Capillary electrophoretic study of the synergistic biological effects of alkaloids from Chelidonium majus L. in normal and cancer cells

Kulp, Maria; Bragina, Olga Analytical and bioanalytical chemistry 2013 / p. 3391-3397 : ill <https://doi.org/10.1007/s00216-013-6755-y> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

CE separation of various analytes of biological origin using polyether ether ketone capillaries and contactless conductivity detection

Knjazeva, Tatjana; Kulp, Maria; Kaljurand, Mihkel Electrophoresis 2009 / p. 424-430 https://www.researchgate.net/profile/Mihkel-Kaljurand/publication/23995365_CE_separation_of_various_analytes_of_biological_origin_using_polyether_ether_ketone_capillaries_and_contactless_conductivity_detection/links/5e50f603299bf1cdb93cf3a5/CE-separation-of-various-analytes-of-biological-origin-using-polyether-ether-ketone-capillaries-and-contactless-conductivity-detection.pdf

Characterization of organosolv lignins and their application in the preparation of aerogels

Jõul, Piia; Ho, Thi Thuy Tran; Kallavus, Urve; Konist, Alar; Leiman, Kristiina; Salm, Olivia-Stella; Kulp, Maria; Koel, Mihkel; Lukk, Tiit Materials 2022 / art. 2861 <https://doi.org/10.3390/ma15082861> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chemical composition of red wines made from hybrid grape and common grape (*Vitis vinifera* L.) cultivars

Pedastsaar, Priit; **Vaher, Merike; Helmja, Kati; Kulp, Maria; Kaljurand, Mihkel;** Karp, Kadri; Raal, Ain; Karathanos, Vaios; Püssa, Tõnu Proceedings of the Estonian Academy of Sciences 2014 / p. 444-453 : ill https://artiklid.elnet.ee/record=b2707387*est <https://doi.org/10.3176/proc.2014.4.10> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chloromethylation of lignin as a route to functional material with catalytic properties in cross-coupling and click reactions

Mohan, Mahendra Kothottil; Silenko, Oleg; Krasnou, Illia; Volobujeva, Olga; Kulp, Maria; Ošeka, Maksim; Lukk, Tiit; Karpichev, Yevgen ChemSusChem 2024 / art. e202301588 <https://doi.org/10.1002/cssc.202301588> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chloromethylation of lignin as a route to functional material with catalytic properties in cross-coupling and click reactions : preprint

Mohan, Mahendra Kothottil; Silenko, Oleg; Krasnou, Illia; Volobujeva, Olga; Kulp, Maria; Ošeka, Maksim; Lukk, Tiit; Karpichev, Yevgen ChemRxiv 2023 / 20 p <https://doi.org/10.26434/chemrxiv-2023-w98xc>

A compared study of esterified lignin for thermoplastic applications

Ho, Tran; Mohan, Mahendra Kothottil; Köster, Carmen; Järvik, Oliver; Kulp, Maria; Karpichev, Yevgen Baltic Polymer Symposium 2025 : 23d International Scientific Conference BPS 2025“Baltic Polymer Symposium 2025” : Book of abstracts 2025 / p. 83 <http://woodval.taltech.ee/wp-content/uploads/2025/07/BPS2025-Book-of-abstracts.pdf>

Detection of banned chemicals in various matrices (saliva, sediments) by capillary electrophoresis

Kaljurand, Mihkel; Mazina, Jekaterina; Saar-Reismaa, Piret; Jõul, Piia; Lees, Heidi; Špiljova, Anastassija; Kulp, Maria; Vaher, Merike ITP2015/NoSSS2015 : final program and book of abstracts 2015 / p. L-36

Detection of banned chemicals in various matrices (saliva, sediments) by capillary electrophoresis

Kaljurand, Mihkel; Mazina-Šinkar, Jekaterina; Saar-Reismaa, Piret; Jõul, Piia; Lees, Heidi; Tretjakova, Anastassija; Kulp, Maria; Vaher, Merike 20th International Scientific Conference EcoBalt 2016 : Tartu, Estonia, October 9-12 : book of abstracts 2016 / p. 38 http://akki.ut.ee/wp-content/uploads/2015/01/Abstracts_Book_EcoBalt_2016.pdf

Determination of GHB and marijuana (THC, CBD) abuse in saliva by capillary electrophoresis

Mazina, Jekaterina; Saar-Reismaa, Piret; Špiljova, Anastassija; Kaljurand, Mihkel; Kulp, Maria; Vaher, Merike ITP2015/NoSSS2015 : final program and book of abstracts 2015 / p. YS-4

Determination of metal content in superoxide dismutase enzymes by capillary electrophoresis

Kazarjan, Jana; Vaher, Merike; Hunter, Therese; Kulp, Maria; Hunter, Gary James; Bonetta, Rosalin; Farrugia, Diane; Kaljurand, Mihkel Journal of separation science 2015 / p. 1042-1045 : ill <https://doi.org/10.1002/jssc.201400925> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Determination of γ -hydroxybutyric acid in saliva by capillary electrophoresis coupled with contactless conductivity and indirect UV absorbance detectors

Mazina, Jekaterina; Saar-Reismaa, Piret; Kulp, Maria; Kaljurand, Mihkel; Vaher, Merike Electrophoresis 2015 / p. 3042-3049 : ill <https://doi.org/10.1002/elps.201500293> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of bio-based lignin-furfural adhesives using deep eutectic solvents

Solomina, Evelin; Thevis, W. H. P.; **Kulp, Maria** Baltic Polymer Symposium 2025 : 23d International Scientific Conference BPS 2025“Baltic Polymer Symposium 2025” : Book of abstracts 2025 / p. 60 <http://woodval.taltech.ee/wp-content/uploads/2025/07/BPS2025-Book-of-abstracts.pdf>

Development of sensitive fluorescence detector for determination of cannabis abuse in saliva by capillary electrophoresis

Mazina, Jekaterina; Tretjakova, Anastassija; 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

Extraction and fractionation of bioactives from *Dipsacus fullonum* L. leaves and evaluation of their anti-borrelia activity

Saar-Reismaa, Piret; Bragina, Olga; Kuhtinskaja, Maria; Reile, Indrek; Laanet, Pille-Riin; Kulp, Maria; Vaher, Merike Pharmaceuticals 2022 / 12 p. : ill <https://doi.org/10.3390/ph15010087> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Flow sampling in capillary electrophoresis with a pneumatically driven computerized sampler

Ebber, Arkadi; Ehala, Sille; Kudrjašova, Marina; Kulp, Maria; Vaher, Merike; Kaljurand, Mihkel Proceedings of the Estonian Academy of Sciences. Chemistry 2004 / 1, p. 6-20 : ill https://kirj.ee/wp-content/plugins/kirj/pub/chem-1-2004-6-20_20211021085440.pdf

Green non-destructive approach for quantitation of hydroxyl groups in lignin using atr-ftir spectroscopy and chemometric methods

Salm, Olivia-Stella; Kudrjašova, Marina; Kulp, Maria Baltic Polymer Symposium 2025 : 23d International Scientific Conference BPS 2025 "Baltic Polymer Symposium 2025" : Book of abstracts 2025 / p. 74 <http://woodval.taltech.ee/wp-content/uploads/2025/07/BPS2025-Book-of-abstracts.pdf>

In situ determination of illegal drugs in oral fluid by portable capillary electrophoresis with deep UV excited fluorescence detection

Saar-Reismaa, Piret; Erme, Enn; Vaher, Merike; Kulp, Maria; Kaljurand, Mihkel; Mazina-Šinkar, Jekaterina Analytical chemistry 2018 / p. 6253-6258 : ill <https://doi.org/10.1021/acs.analchem.8b00911> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

In situ monitoring of kinetics of metabolic conversion of ATP to ADP catalyzed by MgATPases of muscle Gastrocnemius skinned fibers using micellar electrokinetic chromatography

Kulp, Maria; Kaljurand, Mihkel; Käämbre, Tuuli; Sikk, Peeter; Saks, Valdur Electrophoresis 2004 / 17, p. 2996-3002 : ill <https://pubmed.ncbi.nlm.nih.gov/15349940/>

Kapillaarelektroforeesi kasutamine keemiliste reaktsioonide seirel

Kaljurand, Mihkel; Kulp, Maria; Ehala, Sille; Vaher, Merike XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 29

Kas kanep aitab päästa rohepöörde ja kuidas on sellega seotud TalTech?

geenius.ee 2023 [Kas kanep aitab päästa rohepöörde ja kuidas on sellega seotud TalTech?](#)

Metal-doped organic aerogels for photocatalytic degradation of trimethoprim

Bolobajev, Juri; Kask, Maarja; Kreek, Kristiina; Kulp, Maria; Koel, Mihkel; Goi, Anna Chemical engineering journal 2019 / p. 120-128 : ill <https://doi.org/10.1016/j.cej.2018.09.127> [Tehnikaülikooli teadlaste meetod aitab puhastada reovett antibiootikumijääkidest](#) <https://keskkonnatehnika.ee/reovee-puhastamine-kasutades-aerogeele/> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Metallothionein 2A affects the cell respiration by suppressing the expression of mitochondrial protein cytochrome c oxidase subunit II

Bragina, Olga; Gurjanova, Karina; Krištal, Jekaterina; Kulp, Maria; Karro, Niina; Tõugu, Vello; Palumaa, Peep Journal of bioenergetics and biomembranes 2015 / p. 209-216 : ill <https://doi.org/10.1007/s10863-015-9609-9> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Methylphosphonic acid as a 31P-NMR standard for the quantitative determination of phosphorus in carbonated beverages

Kõllo, Marek; Kudrjašova, Marina; Kulp, Maria; Aav, Riina Analytical methods 2013 / p. 4005-4009 : ill <https://doi.org/10.1039/c3ay40743h> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Miniaturization of sampling for chemical reaction monitoring by capillary electrophoresis

Kulp, Maria; Vaher, Merike; Kaljurand, Mihkel Journal of chromatography A 2005 / p. 126-129 : ill

Monitoring of the degradation of phenols by Rhodococcus bacteria by micellar electrokinetic chromatography

Kulp, Maria; Vassiljeva, Irina; Vilu, Raivo; Kaljurand, Mihkel Journal of separation science 2002 / 15/17, p. 1129-1135 <https://analyticalsciencejournals.onlinelibrary.wiley.com/doi/abs/10.1002/1615-9314%2820021101%2925%3A15%2F17%3C1129%3A%3AAID-JSSC1129%3E3.0.CO%3B2-4>

Narkotestri arendamine narkootikumide tuvastamiseks süljes

Saar-Reismaa, Piret; Erme, E.; Kulp, Maria; Gorbatošova, Jelena; Kaljurand, Mihkel; Vaher, Merike; Mazina-Šinkar, Jekaterina XXXIV Eesti keemiapäevad : 100. aastapäeva teaduskonverentsi teesid 2019 / lk. 27 https://www.ester.ee/record=b5208044*est

On-line coupling of a bioreactor with capillary electrophoresis via a membrane interface for monitoring the degradation of phenols by microorganisms

Kulp, Maria; Vassiljeva, Irina; Vilu, Raivo; Kaljurand, Mihkel 15th International Symposium on Microscale Separations and Analysis HPCE, April 13-18, 2002, Stockholm : abstracts 2002 / p. 249

On-line monitoring of enzymatic conversion of adenosine triphosphate to adenosine diphosphate by micellar electrokinetic chromatography

Kulp, Maria; Kaljurand, Mihkel Journal of chromatography A 2004 / p. 305-312 : ill

Preparation of metal-doped carbon aerogels from oil shale processing by-products

Kreek, Kristiina; Kulp, Maria; Uibu, Mai; Mere, Arvo; Koel, Mihkel Oil shale 2014 / p. 185-194 : ill https://artiklid.elnet.ee/record=b2673721*est <https://doi.org/10.3176/oil.2014.2.08> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal](#)

Rapid and sensitive capillary electrophoresis method for the analysis of Ecstasy in an oral fluid

Saar-Reismaa, Piret; Tretjakova, Anastassia; Mazina-Šinkar, Jekaterina; Vaher, Merike; Kaljurand, Mihkel; Kulp, Maria Talanta 2019 / p. 390-396 : ill <https://doi.org/10.1016/j.talanta.2019.01.029> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Rapid capillary electrophoresis method with led-induced native fluorescence detection for the analysis of amphetamine and cocaine derivatives in oral fluid

Tretjakova, Anastassia; Mazina-Šinkar, Jekaterina; Vaher, Merike; Kaljurand, Mihkel; Kulp, Maria 20th International Scientific Conference EcoBalt 2016 : Tartu, Estonia, October 9-12 : book of abstracts 2016 / p. 68 http://akki.ut.ee/wp-content/uploads/2015/01/Abstracts_Book_EcoBalt_2016.pdf

Rapid capillary electrophoresis method with led-induced native fluorescence detection for the analysis of amphetamine and cocaine derivatives in oral fluid

Tretjakova, Anastassia; Mazina, Jekaterina; Vaher, Merike; Kulp, Maria 40th International Symposium on Capillary Chromatography and 13th GC×GC Symposium : May 29 - June 03, 2016, Riva del Garda Fierecongressi, Riva del Garda, Italy : abstract book 2016

Rapid capillary electrophoresis method with LED-induced native fluorescence detection for the analysis of cannabinoids in oral fluid

Mazina, Jekaterina; Špiljova, Anastassija; Vaher, Merike; Kaljurand, Mihkel; Kulp, Maria Analytical methods 2015 / p. 7741-7747 : ill <https://doi.org/10.1039/c5ay01595b> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Simultaneous determination of γ -hydroxybutyric acid, ibotenic acid and psilocybin in saliva samples by capillary electrophoresis coupled with a contactless conductivity detector

Saar-Reismaa, Piret; Kulp, Maria; Vaher, Merike; Kaljurand, Mihkel; Mazina-Šinkar, Jekaterina Analytical methods 2017 / p. 3128-3133 : ill <https://doi.org/10.1039/C7AY00742F> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Substitution of histidine 30 by asparagine in manganese superoxide dismutase alters biophysical properties and supports proliferation in a K562 leukemia cell line

Bonetta, Rosalin; Hunter, Gary J.; Trinh, Chi H.; Borowski, Tomasz; Fenech, Anthony G.; Kulp, Maria; Tabares, Leandro C.; Un, Sun; Hunter, Thérèse European biophysics journal 2021 / p. 571-585 : ill <https://doi.org/10.1007/s00249-021-01544-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Syntrichia ruralis as a suitable bioindicator for urban areas – the case study of Tallinn city

Rajandu, Elle; Kaljuvee, Kadri-Liis; Kulp, Maria; Kaasik, Marko; Elvisto, Tiina; Küttim, Martin Folia Cryptogamica Estonica 2024 / p. 25-34 <https://doi.org/10.12697/fce.2024.61.03> [Journal metrics at Scopus](#) [Article at Scopus](#)

Tuning ester derivatives of organosolv vs technical lignin for improved thermoplastic materials

Mohan, Mahendra Kothottil; Ho, Thi Thuy Tran; Köster, Carmen; Järvik, Oliver; Kulp, Maria; Karpichev, Yevgen Faraday Discussions 2025 <https://doi.org/10.1039/d5fd00068h>

Use of a newly-developed portable capillary electrophoresis analyser to detect drugs of abuse in oral fluid: A case study

Saar-Reismaa, Piret; Brilla, Chelsa-Ann; Leiman, Kristiina; Kaljurand, Mihkel; Vaher, Merike; Kulp, Maria; Mazina-Šinkar, Jekaterina Talanta 2020 / art. 120662, 9 p <https://doi.org/10.1016/j.talanta.2019.120662> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Utilization of phenolic lignin dimer models for the quantification of monolignols in biomass and in its derived organosolv lignins via thioacidolysis and GC-MS analysis

Ho, Thi Thuy Tran; Salm, Olivia-Stella; Lukk, Tiit; Kulp, Maria Analytical methods 2025 / p. 3283-3289 <https://doi.org/10.1039/D5AY00073D>

Uued viisid bituumensideainete kvaliteedimaduste määramiseks ja võimalused nende rakendamiseks, pidades silmas konkreetsele objektile vastavaid kriteeriume sideaine eeldatavast elueast ja kasutuskohast lähtuvalt : teadus- ja arendustöö lõpparuanne [Võrguteavik]

Aavik, Andrus; Kulp, Maria; Sillamäe, Sven; Lill, Kristjan; Hesp, Simon A. M.; Teymourpour, Ponya; Bahia, Hussain 2015 https://www.mnt.ee/sites/default/files/survey/bituumeniuring_2015.pdf

Visualisation of in-capillary microreactions using a CMOS-based absorbance detector

Kulp, Maria; Kaljurand, Mihkel; Bergström, Edmund T. Conference on Knowledge-based Materials and Technologies for Sustainable Chemistry : 1-5 June 2005, Tallinn, Estonia : abstract book 2005 / p. 97

Visualization of electrophoretically mediated in-capillary reactions using a complementary metal oxide semiconductor-based absorbance detector

Kulp, Maria; Urban, Pawel L.; Kaljurand, Mihkel; Bergström, Edmund T.; Goodall, David M. Analytica chimica acta 2006 / p. 1-7 : ill <https://www.sciencedirect.com/science/article/pii/S0003267006007665>

Värvilistes Solanum tuberosum L. mugulates sisalduvate üldfenoolide, suhkrute ja mineraalelementide analüüs

Kotkas, K.; Rosenberg, Viive; **Kulp, Maria; Vaher, Merike** XXXIV Eesti keemiapäevad : 100. aastapäeva teaduskonverentsi teesid 2019 / lk. 43 : ill https://www.ester.ee/record=b5208044*est

Äri käib: keelatud kanepiõli müüjaid paar tuhat eurot sunniraha ei heiduta

Kukk, Mari; Mägi, Maiken maaleht.ee 2023 [Äri käib: keelatud kanepiõli müüjaid paar tuhat eurot sunniraha ei heiduta](#)