

Accurate dialysis dose evaluation and extrapolation algorithms during online optical dialysis monitoring

Fridolin, Ivo; Karai, Deniss; Kostin, Sergei; Ubar, Raimund-Johannes IEEE transactions on biomedical engineering 2013 / p. 1371-1377 : ill <https://doi.org/10.1109/TBME.2012.2234458> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Activity classification for real-time wearable systems : effect of window length, sampling frequency and number of features on classifier performance

Allik, Ardo; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Leier, Mairo; Jervan, Gert 2016 IEEE EMBS Conference on Biomedical Engineering and Sciences (IECBES) : Kuala Lumpur, 4-8 December 2016 2016 / p. 460-464 : ill <https://doi.org/10.1109/IECBES.2016.7843493>

Advancing novel physical fatigue assessment and human activity monitoring methods towards personalized feedback with wearable sensors = Kantavatel seadmetel põhinevate füüsilise väsimuse hindamise ning inimese aktiivsuse monitoorimise meetodite arendamine personaalseks tagasisideks

Allik, Ardo 2022 <https://doi.org/10.23658/taltech.62/2022> <https://digikogu.taltech.ee/et/Item/230f302e-0cf1-4b86-a9d3-0927a51b36e2> https://www.ester.ee/record=b5525012*est

Assessment of associations between arterial mechanical properties and biochemical blood markers for early detection of atherosclerosis

Kööts, Kristina; Pilt, Kristjan; Sepa, Madis; Pikta, Marika; Fridolin, Ivo; Meigas, Kalju; Viigimaa, Margus 8th European Medical and Biological Engineering Conference : proceedings of the EMBEC 2020, November 29 – December 3, 2020 Portorož, Slovenia 2021 / p. 121-129 https://doi.org/10.1007/978-3-030-64610-3_15 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Behaviour of uremic toxins and UV absorbance in respect to low and high flux dialyzers

Lauri, Kai; Arund, Jürgen; Tanner, Risto; Jerotskaja, Jana; Luman, Merike; Fridolin, Ivo Estonian journal of engineering 2010 / 1, p. 95-106 : ill

Biomeditsiinitehnika - tehnoloogia tervise heaks

Hinrikus, Hiie; Bachmann, Maie; Pilt, Kristjan; Meigas, Kalju; Fridolin, Ivo Teadusmõtte Eestis (X). Tehnikateadused. 3 : [artiklikogumik] 2019 / lk. 48-58 : ill https://www.ester.ee/record=b5208765*est

Biomeditsiinitehnika tehnomeedikumis, ehk, "Kas haigus hüüab tülles?"

Fridolin, Ivo Tallinna Tehnikaülikooli aastaraamat 2013 2014 / lk. 248-252

Can removal of middle molecular uremic retention solutes be estimated by UV-absorbance measurements in spent dialysate?

Lauri, Kai; Luman, Merike; Holmar, Jana; Tomson, Ruth; Kalle, Sigrid; Arund, Jürgen; Uhlin, Nils Fredrik Arne; Fridolin, Ivo World Congress on Medical Physics and Biomedical Engineering, June 7–12, 2015, Toronto, Canada 2015 / p. 1297 - 1300 https://doi.org/10.1007/978-3-319-19387-8_315 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

CEBE - Centre for Integrated Electronic Systems and Biomedical Engineering

Fridolin, Ivo; Min, Mart; Ubar, Raimund-Johannes The parliament magazine's research review : European research & innovation 2009 / p. 35

Classification algorithm improvement for physical activity recognition in maritime environments

Allik, Ardo; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Leier, Mairo; Jervan, Gert World Congress on Medical Physics and Biomedical Engineering 2018 : June 3–8, 2018, Prague, Czech Republic (Vol. 3) 2019 / p. 13-17 https://doi.org/10.1007/978-981-10-9023-3_3 [Conference proceeding](#) [Article at Scopus](#) [Article at WOS](#)

Clearance variations monitored by on-line UV-absorbance during haemodialysis

Uhlin, Nils Fredrik Arne; Fridolin, Ivo; Magnusson, Martin; Lindberg, L. NBC'05 UMEA : 13th Nordic Baltic Conference on Biomedical Engineering and Medical Physics : June 13th-17th, 2005, Umea, Sweden 2005 / p. 174-175 : ill

Cognitive disorders in patients with chronic kidney disease : approaches to prevention and treatment

Pepin, Marion; Klimkowicz-Mrowiec, Aleksandra; Godefroy, Oliver; Delgado, Pilar; Carriazo, Sol; Ferreira, Ana Carina; Golenia, Aleksandra; Malyszko, Jolanta; Grodzicki, Tomasz; Giannakou, Konstantino; Andrade, Alexandre; Bachmann, Maie; Fridolin, Ivo European Journal of Neurology 2023 / p. 2899-2911 : ill <https://doi.org/10.1111/ene.15928>

Combined displacer-enhanced removal of protein-bound uremic toxins estimated in spent dialysate

Adoberg, Annika; Leis, Liisi; Uhlin, Nils Fredrik Arne; Arund, Jürgen; Segelmark, Marten; Fernström, Anders; Luman, Merike; Fridolin, Ivo Kidney International Reports 2019 / art.: MON-105 ; p. S347 <https://doi.org/10.1016/j.ekir.2019.05.895>

Comparison of predictive equations for basal metabolic rate

Allik, Ardo; Mägi, Siiri; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Leier, Mairo; Jervan, Gert Wireless Mobile Communication and Healthcare : 7th International Conference, MobiHealth 2017, Vienna, Austria, November 14–15, 2017 : proceedings 2018 / p. 261-264 : ill <https://doi.org/10.1007/978-3-319-98551-0> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Comparison of protein-bound uremic toxins indoxyl sulfate and indole acetic acid reduction ratios in blood and spent dialysate during haemodialysis with different modalities

Leis, Liisi; Adoberg, Annika; Paats, Joosep; Tanner, Risto; Fridolin, Ivo XVII Baltic Nephrology Conference, Tartu, Estonia, October 3rd-5th, 2024 : Abstracts 2024 / 1 p <https://balticnephrology2024.eu/abstracts>

A concept for smart real-time monitoring of intermittent renal replacement therapy

Fridolin, Ivo International journal of artificial organs 2019 / p. 462 <https://journals.sagepub.com/doi/10.1177/0391398819860985>

Could urea in spent dialysate be a marker for monitoring removal of 4-pyridoxic acid?

Kalle, Sigrid; Tanner, Risto; Arund, Jürgen; Tomson, Ruth; Luman, Merike; Fridolin, Ivo XIII Baltic Nephrology Conference : October 13-15, 2016, Jurmala, Latvia : final programme 2016 / p. 6 <http://nefrologs.lv/wp-content/uploads/2016/10/XIII-BNC.pdf>

Data sharing under the general data protection regulation : time to harmonize law and research ethics?

Vlahou, Antonia; Hallinan, Dara; Apweiler, Rolf; **Fridolin, Ivo** Hypertension 2021 / p. 1029-1035
<https://doi.org/10.1161/HYPERTENSIONAHA.120.16340> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of a measurement system for estimation of local peripheral arterial stiffness parameters

Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / p. 1-5
<https://doi.org/10.1109/BEC61458.2024.10737944> [Article at Scopus](#) [Conference proceeding at Scopus](#) [Article at WOS](#)

Development of a method for optical monitoring of creatinine in the spent dialysate

Tomson, Ruth; Uhlin, Nils Fredrik Arne; Holmar, Jana; Lauri, Kai; Luman, Merike; Fridolin, Ivo Estonian journal of engineering 2011 / 2, p. 140-150 : ill

Development of an optical monitoring technology for urea rebound assessment

Tomson, Ruth; Fridolin, Ivo; Luman, Merike The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [4] p. : ill

Development of an optical monitoring technology for urea rebound assessment

Tomson, Ruth; Fridolin, Ivo; Luman, Merike International journal of bioelectromagnetism 2015 / p. 52-56 : ill

Development of the model for the optical monitoring of urea in spent dialysate

Tomson, Ruth; Fridolin, Ivo; Uhlin, Nils Fredrik Arne; Holmar, Jana; Lauri, Kai; Luman, Merike BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 179-182 : ill

Development of the model for the optical multiwavelength monitoring of creatinine in the spent dialysate

Tomson, Ruth; Fridolin, Ivo; Uhlin, Nils Fredrik Arne; Jerotskaja, Jana; Lauri, Kai; Luman, Merike BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 261-264 : ill

Dialysis dose and nutrition assessment by an optical method = Dialüüsravi doosi ja patsientide toitumuse hindamine optilise meetodiga

Luman, Merike 2010 https://www.ester.ee/record=b2599301*est

Dialysis patients survival in HD centres from Belgium, Estonia, Spain, and Sweden—association with BMI and hypocalcemia

Holmar, Jana; Luman, Merike; Adoberg, Annika; Leis, Liisi; Paats, Joosep; Uhlin, Fredrik; Ortiz, Alberto; Gloerieux, Griet; Dhondt, Annemieke; Pilt, Kristjan; Tanner, Risto; Fridolin, Ivo Nephrology Dialysis Transplantation 2024 / p. i1456–i1457
<https://doi.org/10.1093/ndt/gfae069.885>

Eesti meditatsiooniäpp astub mitme miljardi dollari suuruse ravimisektori kandadele

Väärtmaa, Taigar arileht.delfi.ee 2023 [Eesti meditatsiooniäpp astub mitme miljardi dollari suuruse ravimisektori kandadele](https://www.ester.ee/record=b2599301*est)

Eesti teaduse tippkeskus infotehnoloogia teaduskonda

Ubar, Raimund-Johannes; Fridolin, Ivo; Min, Mart Tallinna Tehnikaülikooli aastaraamat 2008 2009 / lk. 19-26

Eetika ja teadustöö on lahutamatu seotud : [intervjuu TTÜ biomeditsiinitehnika instituudi direktori professor Ivo Fridoliniga]

Fridolin, Ivo; Helme, Kristi Mente et Manu 2013 / lk. 14-16 : fot https://www.ester.ee/record=b1242496*est

The effect of Kt/V on post dialysis urea rebound in hemodialysis and hemodiafiltration

Tomson, Ruth; Fridolin, Ivo; Luman, Merike; Holmar, Jana Nephrology dialysis transplantation 2016 / p. i490
<https://doi.org/10.1093/ndt/gfw194.3>

Electroencephalography as an objective indicator of stress

Gavriljuk, Marietta; Uudeberg, Tuuli; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Bachmann, Maie 19th Nordic-Baltic Conference on Biomedical Engineering and Medical Physics : Proceedings of NBC 2023, June 12–14, 2023, Liepaja, Latvia 2023 / p. 221–226
https://doi.org/10.1007/978-3-031-37132-5_28 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Electromagnetic fields and waves for biomedical engineers : course material

Fridolin, Ivo 2008 https://www.ester.ee/record=b2364625*est

Elektromagnetväljad ja -lained biomeditsiinitehnikas : loengukonspekt

2012 https://www.ester.ee/record=b2759438*est

Elimination of uremic toxins during dialysis assessed with the optical and analytical methods = Ureemiliste toksiinide elimineerimise hindamine dialüüsravil optiliste ja analüütiliste meetoditega

Lauri, Kai 2020 <https://digikogu.taltech.ee/et/Item/85965453-b6b4-4a1c-bdb6-8ebb28420fe9> Doktoritöö aitab hinnata jooksvalt neerudialüüsi tõhusust (novaator.err.ee, 15.09.2020)

Estimating total urea removal and protein catabolic rate by monitoring UV absorbance in spent dialysate

Uhlen, Nils Fredrik Arne; Fridolin, Ivo; Lindberg, Lars-Göran; Magnusson, Martin Nephrology dialysis transplantation 2005 / 11, p. 2458-2464 <https://pubmed.ncbi.nlm.nih.gov/16077147/>

Estimation of dialysis patients' survival through combined approach of small molecule uremic markers

Holmar, Jana; Fridolin, Ivo; Uhlin, Nils Fredrik Arne; Fernström, Anders; Luman, Merike Proceedings of the Estonian Academy of Sciences 2014 / p. 227-233 : ill https://artiklid.elnet.ee/record=b2680559*est

Estimation of removed uremic toxin indoxyl sulphate during hemodialysis by using optical data of the spent dialysate

Holmar, Jana; Uhlin, Nils Fredrik Arne; Ferenets, Rain; Lauri, Kai; Tanner, Risto; Arund, Jürgen; Luman, Merike; Fridolin, Ivo The 2013 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) proceedings 2013 / p. 6707-6710 : ill <https://doi.org/10.1109/EMBC.2013.6611095> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Estimation of the influence of K/V on post dialysis urea rebound in HD and HDF with traditional and optical methods

Tomson, Ruth; Fridolin, Ivo; Luman, Merike XIII Baltic Nephrology Conference : October 13-15, 2016, Jurmala, Latvia : final programme 2016 / p. 2 <http://nefrologs.lv/wp-content/uploads/2016/10/XIII-BNC.pdf>

Evaluation of automatic speech recognition prototype for Estonian language in radiology domain : a pilot study

Paats, Andrus; Alumäe, Tanel; Meister, Einar; Fridolin, Ivo 16th Nordic-Baltic Conference on Biomedical Engineering : 16. NBC & 10. MTD 2014 Joint Conferences, October 14-16, 2014, Gothenburg, Sweden 2015 / p. 96-99 https://doi.org/10.1007/978-3-319-12967-9_26 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Fall detection and activity recognition system for usage in smart work-wear [Online resource]

Leier, Mairo; Jervan, Gert; Allik, Ardo; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo BEC 2018 : 2018 16th Biennial Baltic Electronics Conference (BEC) : proceedings of the 16th Biennial Baltic Electronics Conference, October 8-10, 2018 2018 / 4 p.: ill <https://doi.org/10.1109/BEC.2018.8600959>

Fluorescence of Beta-2-microglobulin in the spent dialysate

Kalle, Sigrid; Kressa, H.; Tanner, Risto; Holmar, Jana; Fridolin, Ivo 16th Nordic-Baltic Conference on Biomedical Engineering : 16. NBC & 10. MTD 2014 Joint Conferences, October 14-16, 2014, Gothenburg, Sweden 2015 / p. 59-62 : ill https://doi.org/10.1007/978-3-319-12967-9_16 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Foreword : [special issue on biomedical engineering]

Fridolin, Ivo Proceedings of the Estonian Academy of Sciences 2014 / p. 199

4-pyridoxic acid in the spent dialysate : contribution to fluorescence and optical monitoring

Kalle, Sigrid; Tanner, Risto; Arund, Jürgen; Tomson, Ruth; Luman, Merike; Fridolin, Ivo PLoS ONE 2016 / art. e0162346, p. 1-11 : ill <https://doi.org/10.1371/journal.pone.0162346> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Free fraction of protein-bound uremic solutes in case of different dialysis modalities

Arund, Jürgen; Tanner, Risto; Luman, Merike; Fridolin, Ivo XIII Baltic Nephrology Conference : October 13-15, 2016, Jurmala, Latvia : final programme 2016 / p. 17 <http://nefrologs.lv/wp-content/uploads/2016/10/XIII-BNC.pdf>

Free pentosidine assessment based on fluorescence measurements in spent dialysate

Kalle, Sigrid; Tanner, Risto; Luman, Merike; Fridolin, Ivo Blood Purification 2019 / p. 85–93 <https://doi.org/10.1159/000493522> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A healthier chip?

Hemodialysis optical monitoring toward greener technology : a potential for water saving dialysis treatment

Leis, Liisi; Adoberg, Annika; Paats, Joosep; Holmar, Jana; Arund, Jürgen; Karai, Deniss; Luman, Merike; Pilt, Kristjan; Taklaja, Paul; Tanner, Risto; Fridolin, Ivo 19th Nordic-Baltic Conference on Biomedical Engineering and Medical Physics : Proceedings of NBC 2023, June 12–14, 2023, Liepaja, Latvia 2023 / p. 162 - 171 https://doi.org/10.1007/978-3-031-37132-5_21
[Conference Proceedings at Scopus](#) [Article at Scopus](#)

HPLC study of uremic toxins in the spent dialysate

Lauri, Kai; Tanner, Risto; Arund, Jürgen; Fridolin, Ivo 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. 109

Icke-invasiv kontinuerlig ööervakning av bloddialys - UV-absorption

Uhlén, Nils Fredrik Arne; Fridolin, Ivo Njurmedicinskt regionmöte 2004 / [1] p https://liu.diva-portal.org/smash/record.jsf?faces-redirect=true&aq2=%5B%5D%5D&af=%5B%5D&searchType=SIMPLE&sortOrder2=title_sort_asc&query=&language=sv&pid=diva2%3A249542&aq=%5B%5D%5D&sf=all&aqe=%5B%5D&sortOrder=author_sort_asc&onlyFullText=false&noOfRows=50&dsid=475

Implementation of a radiology speech recognition system for Estonian using open source software

Alumäe, Tanel; Paats, Andrus; Fridolin, Ivo; Meister, Einar 18th Annual Conference of the International Speech Communication Association (INTERSPEECH 2017) : Situated Interaction : Stockholm, Sweden, 20 - 24 August 2017 / p. 2168-2172 : ill <http://doi.org/10.21437/Interspeech.2017-928> <http://toc.proceedings.com/36411webtoc.pdf>

Implementation of a radiology speech recognition system for Estonian using open source software [online resource]

Alumäe, Tanel; Paats, Andrus; Fridolin, Ivo; Meister, Einar INTERSPEECH 2017 : SITUATED INTERACTION, 20–24 August 2017 Stockholm, Sweden : book of abstracts 2017 / p. 165 https://www.isca-speech.org/archive/Interspeech_2017/booklet.pdf
<http://doi.org/10.21437/Interspeech.2017-928>

Influence of acute mental stress on the forehead photoplethysmographic signal waveform

Pilt, Kristjan; Karai, Deniss; Bachmann, Maie; Gavriljuk, Marietta; Fridolin, Ivo 19th Nordic-Baltic conference on biomedical engineering and medical physics : proceedings of NBC 2023, June 12-14, 2023, Liepaja, Latvia 2023 / p. 181 - 188
https://doi.org/10.1007/978-3-031-37132-5_23 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Interrelationship between protein bound uremic toxin indoxyl sulfate concentration in blood and spent dialysate during hemodialysis treatment : [abstract]

Paats, Joosep; Adoberg, Annika; Arund, Jürgen; Fridolin, Ivo; Lauri, Kai; Leis, Liisi; Pilt, Kristjan; Tanner, Risto; Luman, Merike Nephrology dialysis transplantation 2021 / p. 382 : ill <https://doi.org/10.1093/ndt/gfab099.005>

Intradialytic on-line multicomponent reduction ratio monitoring in spent dialysate by a novel miniaturized optical sensor

Pilt, Kristjan; Arund, Jürgen; Adoberg, Annika; Leis, Liisi; Fridolin, Ivo; Luman, Merike Nephrology Dialysis Transplantation 2019 / p. 643-644 <https://doi.org/10.1093/ndt/gfz102.SuO012>

Intradialytic on-line multicomponent total removed solute monitoring in spent dialysate by a novel miniaturized optical sensor

Adoberg, Annika; Paats, Joosep; Arund, Jürgen; Leis, Liisi; Pilt, Kristjan; Fridolin, Ivo; Luman, Merike Nephrology Dialysis Transplantation 2020 / gfaa141.TO015 <https://doi.org/10.1093/ndt/gfaa141.TO015>

Intradialytic on-line multicomponent total removed solute monitoring in spent dialysate by a novel miniaturized optical sensor

Adoberg, Annika; Paats, Joosep; Arund, Jürgen; Leis, Liisi; Pilt, Kristjan; Fridolin, Ivo; Luman, Merike Nephrology Dialysis Transplantation 2021 <https://doi.org/10.1093/ndt/gfaa141.TO015>

Intradialytic on-line multicomponent total removed solutes monitoring in spent dialysate by a novel miniaturized optical sensor

Pilt, Kristjan; Arund, Jürgen; Adoberg, Annika; Leis, Liisi; Luman, Merike; Fridolin, Ivo International journal of artificial organs 2019 / p. 415-416 <https://journals.sagepub.com/doi/10.1177/0391398819860985>

Intradialytic optical assessment of C-mannosyl tryptophan removal using spent dialysate

Paats, Joosep; Adoberg, Annika; Leis, Liisi; Arund, Jürgen; Lauri, Kai; Luman, Merike; Tanner, Risto; Holmar, Jana; Pilt, Kristjan; Fridolin, Ivo Scientific reports 2025 / art. 20052, 12 p. : ill <https://doi.org/10.1038/s41598-025-01844-z>

Is fluorescence valid to monitor removal of protein bound uremic solutes in dialysis?

Arund, Jürgen; Luman, Merike; Uhlén, Nils Fredrik Arne; Tanner, Risto; Fridolin, Ivo PLoS ONE 2016 / art. e0156541, p. 1-12 : ill <https://doi.org/10.1371/journal.pone.0156541> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ivo Fridolin: Living a healthy life is challenge. Science does not fight death

Fridolin, Ivo Estonian Centre of Excellence in ICT Research 2021 / p. 10-15 : ill https://www.ester.ee/record=b5456158*est
<http://www.digar.ee/id/nlib-digar:634779>

2X10 + 7X10

Fridolin, Ivo Mente et Manu 2004 / lk. 7 : fot https://www.ester.ee/record=b1242496*est

Lean body mass assessment based on UV absorbance in spent dialysate and dual-energy x-ray absorptiometry

Tomson, Ruth; Fridolin, Ivo; Luman, Merike International journal of artificial organs 2015 / p. 311-315 : ill

<https://doi.org/10.5301/ijao.5000415> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Lean body mass assessment based on UV-absorbance in spent dialysate

Tomson, Ruth; Fridolin, Ivo; Luman, Merike BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 185-188 : ill

Linnaplaneerimise heaolu skoor mõõdab, mida linnaelanikud tegelikult tunnevad

Fridolin, Ivo; Pilt, Kristjan; Bachmann, Maie; Grišakov, Kristi; Tärnov, Külle; Sternfeldt, Silver Mente et Manu 2022 / lk. 24-26 : fot https://www.ester.ee/record=b1242496*est

Lootusrikkalt loodusteaduste magistriõppe edendamisest : [13. dets. 2004 Amsterdamis toimunud MedNatNet konverentsist]

Fridolin, Ivo Mente et Manu 2004 / 10. veebr., lk. 5 https://www.ester.ee/record=b1242496*est

Major chromophores and fluorophores in the spent dialysate as cornerstones for optical monitoring of kidney replacement therapy = Peamised kromofoorid ja fluorofoorid heitdialüsaadis neeruasendusravi optilise monitooringu nurgakividena

Arund, Jürgen 2016 http://www.ester.ee/record=b4574893*est

Meditiinifüüsika professor selgitab, miks on intensiivravi kohti raske juurde tekitada [Võrguväljaanne]

Fridolin, Ivo novaator.err.ee 2020 / fot [Meditiinifüüsika professor selgitab, miks on intensiivravi kohti raske juurde tekitada](#)

Meditiinitehnika - terviseinseneering

Hinrikus, Hiie; Lass, Jaanus; Meigas, Kalju; Fridolin, Ivo Teadusmõtte Eestis. 4, Tehnikateadused. 2 2007 / lk. 17-25 : ill

[My first grant]

Fridolin, Ivo Innovaatika : special issue newsletter 2005 / p. 16

The need for a multi-disciplinary reflection about frailty and cognitive impairment in chronic kidney disease

Farisco, Michele; Zecchino, Irene; Capasso, Giovambattista; Bachmann, Maie; Fridolin, Ivo Nephrology Dialysis Transplantation 2023 / p. 1064–1066 <https://doi.org/10.1093/ndt/gfac334>

New optical method for estimation of protein bound uremic toxins elimination

Holmar, Jana; Arund, Jürgen; Uhlin, Fredrik; Tanner, Risto; Fridolin, Ivo World Congress on Medical Physics and Biomedical Engineering May 26-31, 2012, Beijing, China 2013 / p. 71-74 https://doi.org/10.1007/978-3-642-29305-4_20 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Non-invasive determination of uric acid in blood during hemodialysis with an optical spent dialysate sensor

Paats, Joosep; Arund, Jürgen; Adoberg, Annika; Holmar, Jana; Leis, Liisi; Luman, Merike; Pilt, Kristjan; Tanner, Risto;

Fridolin, Ivo 61st ERA Congress, 23-26 May 2024: Congress Abstracts 2024 / p. i1236 <https://doi.org/10.1093/ndt/gfae069.754>

Non-invasive optical estimation of intradialytic concentrations of uremic toxins in blood of hemodialysis patients

Paats, Joosep; Adoberg, Annika; Arund, Jürgen; Fridolin, Ivo; Holmar, Jana; Lauri, Kai; Leis, Liisi; Pilt, Kristjan; Tanner, Risto; Luman, Merike Nephrology Dialysis Transplantation 2023 / art. #3367, p. i149-i150 : ill

https://doi.org/10.1093/ndt/gfad063b_3367

Novel method for dialysis monitoring : "Estimation of dialysis quality and adequacy with a new optical technique", ETF research project 2004-2006

Fridolin, Ivo Estonian Science Foundation 2007 2008 / p. 23 : ill

A novel physical fatigue assessment method utilizing heart rate variability and pulse arrival time towards personalized feedback with wearable sensors

Allik, Ardo; Pilt, Kristjan; Viigimäe, Moonika; Fridolin, Ivo; Jervan, Gert Sensors 2022 / art. 1680 <https://doi.org/10.3390/s22041680> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Novel spent dialysate based optical methods: towards more universal dose quantification of haemodialysis = Uudsed

dialüsaadipõhised optilised meetodid universaalsema hemodialüüsravi doosi määramiseks

Paats, Joosep 2025 https://www.ester.ee/record=b5753842*est <https://digikogu.taltech.ee/et/Item/f2808205-001d-45c0-93b9-725b09a49f95>
<https://doi.org/10.23658/taltech.49/2025>

Nutrition estimation of dialysis patients by on-line monitoring and kinetic modelling

Fridolin, Ivo; Lauri, Kai; Jerotskaja, Jana; Luman, Merike Estonian journal of engineering 2008 / p. 177-188 : ill
https://artiklid.elnet.ee/record=b1022244*est

On-line monitoring of dialysis adequacy using diasens optical sensor: accurate Kt/V estimation by smoothing algorithms

Talaisainen, Aleksei; Kostin, Sergei; Karai, Deniss; Fridolin, Ivo; Ubar, Raimund-Johannes BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 273-276 : ill

On-line monitoring of the spent dialysate during haemodialysis using UV-absorbance

Uhlin, Nils Fredrik Arne; Fridolin, Ivo Proceedings of the 34th International Conference of EDTNA/ERCA : Wien, Austria, 2005. 1 2005 / p. 46

Online urea concentration estimation from spent dialysate using optical sensor

Pilt, Kristjan; Arund, Jürgen; Adoberg, Annika; Leis, Liisi; Luman, Merike; **Fridolin, Ivo** XV Mediterranean Conference on Medical and Biological Engineering and Computing - MEDICON 2019 : proceedings of MEDICON 2019, September 26–28, 2019, Coimbra, Portugal 2020 / p. 1459-1464 https://doi.org/10.1007/978-3-030-31635-8_180 [Conference proceedings at Scopus](#) [Article at Scopus](#)
[Article at WOS](#)

Online uric acid concentration estimation in blood from spent dialysate measurements using an optical sensor

Paats, Joosep; Arund, Jürgen; Pilt, Kristjan; Adoberg, Annika; **Leis, Liisi;** Luman, Merike; **Holmar, Jana; Tanner, Risto;** **Fridolin, Ivo** 9th European Medical and Biological Engineering Conference : Proceedings of EMBEC 2024 ; Volume 2 2024 / p. 178 - 187 https://doi.org/10.1007/978-3-031-61628-0_20 [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Optical assessment of calcification markers phosphorus and calcium during hemodialysis

Holmar, Jana; Uhlin, Nils Fredrik Arne; Fernström, Anders; **Luman, Merike;** Jankowski, Joachim; **Fridolin, Ivo** Nephrology Dialysis Transplantation 2015 / iii556 <https://doi.org/10.1093/ndt/gfv197.03>

Optical dialysis adequacy monitoring: small uremic toxins and contribution to UV-absorbance studied by HPLC

Lauri, Kai; Arund, Jürgen; Holmar, Jana; Tanner, Risto; Luman, Merike; Fridolin, Ivo Progress in hemodialysis - from emergent biotechnology to clinical practice 2011 / p. 143-160 : ill <https://www.intechopen.com/chapters/21275>

Optical Estimation of Beta 2 Microglobulin during Hemodiafiltration - Does It Work?

Uhlin, Nils Fredrik Arne; Holmar, Jana; Yngman-Uhlin, Pia; Fernström, Anders; **Fridolin, Ivo** Blood Purification 2015 / p. 113-119
<https://doi.org/10.1159/000381797> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optical measurement of 4-pyridoxic acid in the spent dialysate : algorithm development

Kalle, Sigrid; Tanner, Risto; Arund, Jürgen; Tomson, Ruth; Fridolin, Ivo BEC 2016 : 2016 15th Biennial Baltic Electronics Conference : proceedings of the 15th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 3-5, 2016, Tallinn, Estonia 2016 / p. 115-118 : ill http://www.ester.ee/record=b2150914*est

Optical measurement of creatinine in spent dialysate

Tomson, Ruth; Fridolin, Ivo; Uhlin, Nils Fredrik Arne; Holmar, Jana; Lauri, Kai; Luman, Merike Clinical nephrology 2013 / p. 107-117 : ill <https://doi.org/10.5414/CN107338> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optical method and biochemical source for the assessment of the middle-molecule uremic toxin β 2-microglobulin in spent dialysate

Paats, Joosep; Adoberg, Annika; **Arund, Jürgen; Fridolin, Ivo; Lauri, Kai;** Leis, Liisi; **Luman, Merike; Tanner, Risto** Toxins 2021 / art. 255, 15 p. : ill <https://doi.org/10.3390/toxins13040255> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#)
[Article at WOS](#)

Optical method for cardiovascular risk marker uric acid removal assessment during dialysis

Holmar, Jana; Fridolin, Ivo; Uhlin, Nils Fredrik Arne; Lauri, Kai; Luman, Merike The scientific world journal 2012 / p. 1-8 : ill
<https://pubmed.ncbi.nlm.nih.gov/22701094/>

An optical method for serum calcium and phosphorus level assessment during Hemodialysis

Holmar, Jana; Uhlin, Fredrik; Fernström, Anders; **Luman, Merike;** Jankowski, Joachim; **Fridolin, Ivo** Toxins 2015 / p. 719-727
<https://doi.org/10.3390/toxins7030719> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optical method for uric acid removal assessment during dialysis = Optiline meetod kusihaape eemaldamise määramiseks dialüüsiravi käigus

Holmar, Jana 2013 https://www.ester.ee/record=b3004743*est

Optical monitoring of dialysis dose

Uhlin, Nils Fredrik Arne; Fridolin, Ivo Modeling and control of dialysis systems. Vol. 2, Biofeedback systems and soft computing techniques of dialysis 2013 / p. 867-928 : ill https://doi.org/10.1007/978-3-642-27558-6_3 [Article collection metrics at Scopus](#) [Article at Scopus](#)

Optical monitoring of uremic metabolites-fluorophores during dialysis : the cases of [beta]-2-microglobulin, pentosidine, and 4-pyridoxic acid = Ureemiliste metaboliitide-fluorofooride optiline jälgimine dialüüsi jooksul: [beta]-2-mikroglobuliini, pentosidiini ja 4-püridokshappe näited

Kalle, Sigrid 2018 <https://digi.lib.ttu.ee/11057> https://www.ester.ee/record=b5159591*est

Optical on-line monitoring of a displacer-chromophore administration during a dialysis treatment

Arund, Jürgen; Adoberg, Annika; Leis, Liisi; Luman, Merike; Uhlin, Nils Fredrik Arne; Segelmark, Marten; Fernström, Anders; Fridolin, Ivo Kidney International Reports 2019 / p. S340-S341 <https://doi.org/10.1016/j.ekir.2019.05.879>

Optical real-time cardiorenal toxin uric acid measurement during hemodialysis using a miniaturized optical sensor

Holmar, Jana; Arund, Jürgen; Adoberg, Annika; Leis, Liisi; Luman, Merike; Paats, Joosep; Pilt, Kristjan; Tanner, Risto; Fridolin, Ivo Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS2023 2023 / 4 p. : ill <https://doi.org/10.1109/EMBC40787.2023.10340379> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Optical urea rebound estimation during dialysis

Tomson, Ruth; Uhlin, Nils Fredrik Arne; Fridolin, Ivo 16th Nordic-Baltic Conference on Biomedical Engineering : 16. NBC & 10. MTD 2014 Joint Conferences, October 14-16, 2014, Gothenburg, Sweden 2015 / p. 109-112 : ill https://doi.org/10.1007/978-3-319-12967-9_30 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Optilise kiirguse rakendamise biomeditsiinitehnilises diagnostikas : avalik loeng 29. märtsil 2004 TTÜs

Fridolin, Ivo Tallinna Tehnikaülikooli aastaraamat 2004 2005 / lk. 276-282

Optimization of physical activity recognition for real-time wearable systems : effect of window length, sampling frequency and number of features

Allik, Ardo; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Leier, Mairo; Jervan, Gert Applied sciences 2019 / art. 4833, 14 p. : ill <https://doi.org/10.3390/app9224833> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Paracetamol interferes uric acid levels in uraemic patients revealed by monitoring spent dialysate

Tanner, Risto; Arund, Jürgen; Fridolin, Ivo; Luman, Merike ISRN nephrology 2013 / p. 1-4 : ill

Photon propagation in tissue and in biological fluids applied for vascular imaging and haemodialysis monitoring

Fridolin, Ivo 2009 https://www.ester.ee/record=b2637490*est

Photon propagation in tissue and in biological fluids applied for vascular imaging and haemodialysis monitoring

Fridolin, Ivo 2003 https://www.ester.ee/record=b1908470*est

Pilot study for estimating physical fatigue based on heart rate variability and reaction time

Allik, Ardo; Pilt, Kristjan; Viigimäe, Moonika; Fridolin, Ivo XV Mediterranean Conference on Medical and Biological Engineering and Computing -MEDICON 2019 : proceedings of MEDICON 2019, September 26–28, 2019, Coimbra, Portugal 2020 / p. 193-200 https://doi.org/10.1007/978-3-030-31635-8_23 [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

POS-648 medicines intake influences accuracy of the uremic retention molecules' optical monitoring in spent dialysate : the case of uremic toxin uric acid and paracetamol

Paats, Joosep; Adoberg, Annika; Arund, Jürgen; Fridolin, Ivo; Holmar, Jana; Leis, Liisi; Pilt, Kristjan; Tanner, Risto; Uhlin, Nils Fredrik Arne; Luman, Merike Kidney International Reports 2022 / p. S277-S278 : ill <https://doi.org/10.1016/j.ekir.2022.01.681>

Professor Ivo Fridolin julgustab osalema programmis "Tagasi kooli" : [intervjuu]

Fridolin, Ivo; Vähi, Kersti Mente et Manu 2012 / lk. 9 : fot https://www.ester.ee/record=b1242496*est

Protein catabolic rate estimated by on-line monitoring of the UV-absorbance in the spent dialysate

Uhlin, Nils Fredrik Arne; Fridolin, Ivo American Society of Nephrology 37th Annual Meeting and Scientific exposition : St.Louis, Missouri, USA, 2004 2004 / [1] p <https://liu.diva-portal.org/smash/record.jsf?pid=diva2%3A249543&dswid=-4914>

Reduction of urea and indoxyl sulphate concentration during different dialysis treatment modalities

Holmar, Jana; Luman, Merike; Arund, Jürgen; Lauri, Kai; Tomson, Ruth; Tanner, Risto; Kalle, Sigrid; Fridolin, Ivo International journal of artificial organs 2016 / p. 379 <http://dx.doi.org/10.5301/ijao.5000508>

Removal estimation of uremic CVD marker phosphate in dialysis using spectrophoto- and fluorimetric signals

Holmar, Jana; Arund, Jürgen; Kalle, Sigrid; Lauri, Kai; Luman, Merike; Tanner, Risto; Tomson, Ruth; Fridolin, Ivo EMBEC &

NBC 2017 : joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, June 2017 2018 / p. 358-361 : ill https://doi.org/10.1007/978-981-10-5122-7_90 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Removal of phosphate as the trigger of vascular calcification by different dialysis treatment modalities

Holmar, Jana; Jankowski, Joachim; **Fridolin, Ivo;** Alampour-Rajabi, Setareh; **Luman, Merike** Nephrology dialysis transplantation 2018 / p. i224 : ill <https://doi.org/10.1093/ndt/gfy104.FP548>

Removal of Urea, beta 2-Microglobulin, and Indoxyl Sulfate Assessed by Absorbance and Fluorescence in the Spent Dialysate During Hemodialysis

Lauri, Kai; Arund, Jürgen; Holmar, Jana; Tanner, Risto; Kalle, Sigrid; Luman, Merike; Fridolin, Ivo Asaio journal 2020 / p. 695–705 <https://doi.org/10.1097/MAT.0000000000001058> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Removal of vascular calcification inducer phosphate in different dialysis treatment modalities

Holmar, Jana; Fridolin, Ivo; Luman, Merike World Congress on Medical Physics and Biomedical Engineering 2018 : June 3–8, 2018, Prague, Czech Republic (Vol. 3) 2019 / p. 143-147 https://doi.org/10.1007/978-981-10-9023-3_26 [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Retrospective analysis of clinical performance of an Estonian speech recognition system for radiology : effects of different acoustic and language models

Paats, Andrus; Alumäe, Tanel; Meister, Einar; Fridolin, Ivo Journal of digital imaging 2018 / p. 615–621 : ill <https://doi.org/10.1007/s10278-018-0085-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sensortehnoloogiad meditsiinitehnikas uurimisrühm = Sensor Technologies in Biomedical engineering Research Group

Fridolin, Ivo Tervisetehnoloogiad eile, täna, homme : 30 aastat Tervisetehnoloogiaste instituuti ning Eesti Biomeditsiinitehnika ja Meditsiinfüüsika Ühingu = Health technologies yesterday, today and tomorrow : 30 years of the Department of Health Technologies and the Estonian Society for Biomedical Engineering and Medical Physics 2024 / lk. 31-36, p. 29-34 : ill

Serum levels and removal by haemodialysis and haemodiafiltration of tryptophan-derived uremic toxins in ESKD patients

Paats, Joosep; Adoberg, Annika; **Arund, Jürgen; Fridolin, Ivo;** Leis, Liisi; **Luman, Merike; Pilt, Kristjan; Uhlin, Nils Fredrik Arne** International journal of molecular sciences 2020 / art. 1522, 19 p. : ill <https://doi.org/10.3390/ijms21041522> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Serum levels of miR-126 and miR-223 and outcomes in chronic kidney disease patients

Fourdinier, Ophélie; Schepers, Eva; Metzinger-Le Meuth, Valérie; Glorieux, Griet; Liabeuf, Sophie; Vanholder, Raymond; Brigant, Benjamin; Pletinck, Anneleen; **Fridolin, Ivo** Scientific reports 2019 / art. 447, 12 p. : ill <https://doi.org/10.1038/s41598-019-41101-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solute removal rate assessment during hemodialysis using a spectrophotometrical technique : a theoretical study of component interaction [Electronic resource]

Fridolin, Ivo Medicon and Health Telematics 2004 "Health in the Information Society" : Xth Mediterranean Conference on Medical and Biological Engineering : July 31 - August 5, 2004, Ischia, Naples-Italy 2004 / [4] p. : ill. [CD-ROM]

A systematic review of vascular calcification inhibitors in chronic kidney disease

Adoberg, Annika; Leis, Liisi; Luman, Merike; Uhlin, Fredrik; Fridolin, Ivo; Holmar, Jana XVII Baltic Nephrology Conference, Tartu, Estonia, October 3rd-5th, 2024 : Abstracts 2024 / 2 p <https://balticnephrology2024.eu/abstracts>

Time-averaged concentration estimation of uraemic toxins with different removal kinetics : a novel approach based on intradialytic spent dialysate measurements

Paats, Joosep; Adoberg, Annika; Arund, Jürgen; Dhondt, Annemieke; Fernström, Anders; Glorieux, Griet; **Fridolin, Ivo; Holmar, Jana; Luman, Merike; Pilt, Kristjan** Clinical Kidney Journal 2023 / p. 735-744 : ill <https://doi.org/10.1093/ckj/sfac273> <https://academic.oup.com/ckj/article/16/4/735/6948331> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Total removed beta 2-microglobulin and urea during different dialysis treatment modalities

Holmar, Jana; Luman, Merike; Lauri, Kai; Fridolin, Ivo XIII Baltic Nephrology Conference : October 13-15, 2016, Jurmala, Latvia : final programme 2016 / p. 21-22 : ill <http://nefrologs.lv/wp-content/uploads/2016/10/XIII-BNC.pdf>

Total removed uric acid during dialysis estimated by on-line ultra violet absorbance in the spent dialysate [Electronic resource]

Uhlin, Nils Fredrik Arne; Lindberg, Lars-Göran; **Fridolin, Ivo** IFMBE proceedings 2005 / [6] p. [CD-ROM] https://www.academia.edu/86162834/Total_removed_uric_acid_during_dialysis_estimated_by_on_line_ultra_violet_absorbance_in_the_spent_dialysate

Treatment with paracetamol can interfere with the intradialytic optical estimation in spent dialysate of uric acid but not of indoxyl sulfate

Adoberg, Annika; **Paats, Joosep; Arund, Jürgen**; Dhondt, Annemieke; **Fridolin, Ivo**; Glorieux, Griet; **Holmar, Jana**; Lauri, Kai; Leis, Liisi; **Luman, Merike; Pilt, Kristjan; Uhlin, Nils Fredrik Arne; Tanner, Risto** Toxins 2022 / art. 610
<https://doi.org/10.3390/toxins14090610> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Two anniversaries of the Estonian biomedical engineering community in 2004

Fridolin, Ivo IFMBE news 2005 / p. 14-15

Urea- and creatinine-based parameters in the optical monitoring of dialysis : the case of lean body mass and urea rebound assessment = Uureal ja kreatiniinil põhinevad parameetrid neeruasendusravi optilises monitooringus : patsiendi lihasmassi ja uurea tagasilöögi efekti hindamine

Tomson, Ruth 2017 <https://digi.lib.ttu.ee/i/?7744> https://www.ester.ee/record=b4678405~S1*est

Urea rebound assessment based on UV absorbance in spent dialysate

Tomson, Ruth; Uhlin, Fredrik; Fridolin, Ivo Asaio journal 2014 / p. 459-465 : ill <https://doi.org/10.1097/MAT.0000000000000091>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Uudne meetod neeruasendusravi paremaks jälgimiseks : Eesti Teadusfondi projekt "Uudne optiline tehnika dialüüsi kvaliteedi jälgimiseks ja hindamiseks", 2004-2006

Fridolin, Ivo Eesti Teadusfondi aastaraamat 2007 2008 / lk. 23 : ill

Welcome

Fridolin, Ivo Estonian Centre of Excellence in ICT Research 2021 / p. 3 : portr https://www.ester.ee/record=b5456158*est
<http://www.digar.ee/id/nlib-digar:634779>