

## **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

**Benefit from lipoprotein apheresis in severe case of coronary heart disease patient with high level of lipoprotein (a)**  
**Zemtsovski, Mihhail; Zemtsovskaja, Galina; Pikta, Marika; Luman, Merike; Viigimaa, Margus** Cardiology 2015 / p. 35-36  
<https://www.karger.com/Article/Abstract/431110>

## **Brain-to-brain loop concept in application to porphyrias : 10-year experience at North Estonia Medical Centre**

**Zemtsovskaja, Galina; Pikta, Marika; Borissova, Julia; Pille, Viive; Luman, Merike; Viigimaa, Margus** Eesti Arst 2016 / p. 61  
<http://ojs.utlib.ee/index.php/EA/article/viewFile/12917/8000> [http://www.estar.ee/record=b4600434\\*est](http://www.estar.ee/record=b4600434*est)

## **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.kir.2019.05.895>

## **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://nephrologs.lv/wp-content/uploads/2016/10/XIII-BNC.pdf>

## **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 = Dialüüsraavi doosi ja patsientide toitumuse hindamine optilise meetodiga**

**Luman, Merike** 2010 [https://www.estar.ee/record=b2599301\\*est](https://www.estar.ee/record=b2599301*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>

## **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](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

## **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://nephrologs.lv/wp-content/uploads/2016/10/XIII-BNC.pdf>

## **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 <http://dx.doi.org/10.1371/journal.pone.0162346>

## **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](#)

## **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 2021 <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 2020 / gfaa141.TO015 <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>

## **Investigation of porphyrias : 10-year experience at the North Estonia Medical Centre**

**Zemtsovskaja, Galina; Pikta, Marika; Borissova, Julia; Pille, Viive; Luman, Merike; Viigimaa, Margus** Eesti Arst 2016 / p. 61 <http://ojs.utlib.ee/index.php/EA/article/viewFile/12917/8000> [http://www.estar.ee/record=b4600434\\*est](http://www.estar.ee/record=b4600434*est)

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

**Arund, Jürgen; Luman, Merike; Uhlin, Nils Fredrik Arne; Tanner, Risto; Fridolin, Ivo** PLoS ONE 2016 / art. e0156541, p. 1-12 : ill <https://doi.org/10.1371/journal.pone.0156541>

## **Kroonilise neeruhaiguse ennetus ja käsitlus**

**Luman, Merike** Eesti Arst 2017 / lk. 195-198 [http://www.estar.ee/record=b1072028\\*est](http://www.estar.ee/record=b1072028*est)

## **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

## **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.estar.ee/record=b4574893\\*est](http://www.estar.ee/record=b4574893*est)

## **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](https://artiklid.elnet.ee/record=b1022244*est)

## **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](https://doi.org/10.1007/978-3-030-31635-8_180) [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

**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 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

**Optical method and biochemical source for the assessment of the middle-molecule uremic toxin β2-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

**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.kir.2019.05.879>

**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

**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.kir.2022.01.681>

**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/ijo.5000508>

**Removal estimation of uremic CVD marker phosphate in dialysis using spectrophoto- and fluorimetical 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](https://doi.org/10.1007/978-981-10-5122-7_90)

**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 Asao 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](https://doi.org/10.1007/978-981-10-9023-3_26) Conference proceeding at Scopus Article at Scopus Article at WOS

**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

**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>

**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>

**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

**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>