

Annual variation of yield and composition of the essential oil of common juniper (*Juniperus communis* L.) branches from Estonia

Raal, Ain; Kanut, Margarita; **Orav, Anne** Baltic forestry 2010 / 1, p. 50-56 : ill

https://www.researchgate.net/publication/285778422_Annual_Variation_of_Yield_and_Composition_of_the_Essential_Oil_of_Common_Juniper_Juniperus_communis_L_Branches_from_Estonia

Bioactive components of the hop strobilus : comparison of different extraction methods by capillary electrophoretic and chromatographic methods

Helmja, Kati; Vaher, Merike; Püssa, Tõnu; **Kamsol, Kristjan; Orav, Anne; Kaljurand, Mihkel** Journal of chromatography A 2007 / p. 222-229 : ill

https://www.academia.edu/60646251/Bioactive_components_of_the_hop_strobilus_Comparison_of_different_extraction_methods_by_capillary_electrophoretic_and_chromatographic_methods

Capillary gas chromatographic analysis of the monoterpene fraction of Estonian conifer needle oil

Orav, Anne; Kailas, Tiit; Liiv, Milana; Aav, Riina Proceedings of the Estonian Academy of Sciences. Chemistry 1995 / 2/3, p. 149-155

Chemical Composition and Antibacterial Effect of *Mentha* spp. Grown in Estonia

Kapp, Karmen; Püssa, Tõnu; Orav, Anne; Roasto, Mati; Raal, Ain; Vuorela, Pia; Vuorela, Heikki; Tammela, Päivi Natural product communications 2020 / 14 p

<https://doi.org/10.1177/1934578X20977615> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chemical composition and antimicrobial activity of plant essential oils

Kravets, Marina; Lõugas, Tiina; Orav, Anne; Vokk, Raivo Proceedings of 5th International Congress on Food Technology.

Volume 2 2007 / p. 396-401

Chemical composition of essential oil of common juniper (*Juniperus communis* L.) branches from Estonia

Raal, Ain; Komarov, Rostislav; **Orav, Anne;** Kapp, Karmen; Grytsyk, Andriy; Koshovyi, Oleh ScienceRise: Pharmaceutical Science

2022 / p. 66 - 73 <https://doi.org/10.15587/2519-4852.2022.271048> [Journal metrics at Scopus](#) [Article at Scopus](#)

Chemical composition of *Serpulli herba* essential oil of Estonian origin

Paaver, Urve; Orav, Anne; Arak, Elmar; Mäeorg, Uno; Raal, Ain 1st BBBB Conference on Pharmaceutical Sciences : September 26-28, 2005, Siófok, Hungary : programme book 2005 / p. 191-195

Chemical investigation of the essential oil from berries and needles of common juniper (*Juniperus communis* L.) growing wild in Estonia

Orav, Anne; Kailas, Tiit; Müürisepp, Aleksander-Mati Natural product research 2010 / 19, p. 1789-1799

Chemosystematic markers for the essential oils in leaves of *Mentha* species cultivated or growing naturally in Estonia

Orav, Anne; Kapp, Karmen; Raal, Ain Proceedings of the Estonian Academy of Sciences 2013 / p. 175-186

https://artiklid.elnet.ee/record=b2624901*est

Commercial peppermint (*Mentha x piperita* L.) teas : antichlamydial effect and polyphenolic composition

Kapp, Karmen; Hakala, Elina; Orav, Anne Food research international 2013 / p. 758-766 : ill

Comparacion de aceites esenciales de *Matricaria recutita* L. de origen diverso

Raal, Ain; Arak, Elmar; **Orav, Anne; Ivask, Kaie** Ars pharmaceutica 2004 / 2, p. 159-165 <https://www.ugr.es/~ars/abstract/44-159-03.pdf>

Comparative analysis of the composition of essential oils and supercritical carbon dioxide extracts from the berries and needles of Estonian juniper (*Juniperus communis* L.)

Orav, Anne; Koel, Mihkel; Kailas, Tiit; Müürisepp, Aleksander-Mati Procedia chemistry 2010 / p. 161-167

Comparative analysis of the composition of the essential oil from the shoots, leaves and stems the wild *Ledum palustre* L. from Estonia

Gretšušnikova, Tatjana; Järvan, Kerly; Orav, Anne; Koel, Mihkel Procedia chemistry 2010 / p. 168-173

Comparative analysis of the essential oil and supercritical carbon dioxide extracts of *Juniperus communis* L. berries and needles from Estonia

Orav, Anne; Koel, Mihkel; Kailas, Tiit; Müürisepp, Aleksander-Mati 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. 123

Comparative chemical composition of the essential oil of *Mentha x piperita* L. from various geographical sources

Orav, Anne; Raal, Ain; Arak, Elmar Proceedings of the Estonian Academy of Sciences. Chemistry 2004 / 4, p. 174-181 : ill

Comparative chemical composition of the essential oil of *Thymus vulgaris* L. from different geographical sources

Raal, Ain; Arak, Elmar; **Orav, Anne** *Herba Polonica* 2005 / 1/2, p. 10-17

Comparison of essential oil content and composition of wild majoram and wild thyme growing in Estonia with thyme herb

Paaver, Urve; Raal, Ain; Arak, Elmar; Pudersell, K.; **Orav, Anne; Ivask, Kaire** *Pharmacy and Pharmaceutical Sciences World Congress : FIP 2002, Nice, France : abstracts 2002* / p. MAPS-P-406

Comparison of essential oil content of *Matricaria recutita* L. from different origins

Raal, Ain; Arak, Elmar; **Orav, Anne; Ivask, Kaire** *Arc pharmatica* 2003 / 1, p. 159-165

Comparison of essential oils composition from shoots, leaves and stems of the wild *Ledum palustre* from Estonia

Gretšušnikova, Tatjana; Orav, Anne; Koel, Mihkel; Järvan, Kerly 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. 90

Comparison of the essential oil composition of *Acorus calamus* obtained by supercritical carbon dioxide extraction and hydrodistillation methods

Gretšušnikova, Tatjana; Koel, Mihkel; Orav, Anne 9th International Symposium on Supercritical Fluids : Arcachon, France, May 18-20 2009 / p. 301

Composition and antibacterial effect of mint flavorings in candies and food supplements

Kapp, Karmen; **Orav, Anne**; Roasto, Mati; Raal, Ain; Püssa, Tõnu; Vuorela, Heikki; Tammela, Päivi; Vuorela, Pia *Planta medica* 2020 / p. 1089–1096 <https://doi.org/10.1055/a-1158-1699> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Composition of blackcurrant aroma isolated from leaves, buds, and berries of *Ribes nigrum* L.

Orav, Anne; Kailas, Tiit; Müürisepp, Aleksander-Mati *Proceedings of the Estonian Academy of Sciences. Chemistry* 2002 / 4, p. 225-234 : ill

Composition of essential oil of aerial parts of *Chamomilla suaveolens* from Estonia

Orav, Anne; Sepp, Janne; Kailas, Tiit; Müürisepp, Aleksander-Mati; Arak, Elmar; Raal, Ain *Natural product communications* 2010 / 1, p. 133-136

Composition of the essential oil from *Achillea millefolium* L. from Estonia

Orav, Anne; Kailas, Tiit; Ivask, Kaire *Journal of essential oil research* 2001 / p. 290-294

Composition of the essential oil from wild majoram (*Origanum vulgare* L.ssp.vulgare) of different origins

Ivask, Kaire; Orav, Anne; Kailas, Tiit; Raal, Ain; Arak, Elmar; Paaver, Urve *Journal of essential oil research* 2005 / 4, p. 384-387

Composition of the essential oil of *Artemisia absinthium* L. of different geographical origin

Orav, Anne; Raal, Ain; Arak, Elmar; **Müürisepp, Aleksander-Mati; Kailas, Tiit** *Proceedings of the Estonian Academy of Sciences. Chemistry* 2006 / 3, p. 155-165 : ill

Composition of the essential oil of *Coriandrum sativum* L. seeds from various countries

Arak, Elmar; **Orav, Anne**; Raal, Ain *European journal of pharmaceutical sciences* 2007 / 1, Supplement 1, p. S22

Composition of the essential oil of dill, celery, and parsley from Estonia

Orav, Anne; Kailas, Tiit; Jegorova, Anna *Proceedings of the Estonian Academy of Sciences. Chemistry* 2003 / 4, p. 147-154 : ill

Composition of the essential oil of *Levisticum officinale* W.D.J. Koch from some European countries

Raal, Ain; Arak, Elmar; **Orav, Anne; Kailas, Tiit; Müürisepp, Aleksander-Mati** *Journal of essential oil research* 2008 / p. 318-322

Composition of the essential oil of *Origanum vulgare* L. ssp. vulgare from various countries

Raal, Ain; Arak, Elmar; **Orav, Anne** *Planta medica* 2007 / 9, p. 929

Composition of the essential oil of *Salvia officinalis* L. from various European countries

Raal, Ain; **Orav, Anne**; Arak, Elmar *Natural product research* 2007 / 5, p. 406-411

Composition of the essential oil of the *Rhododendron tomentosum* Harmaja from Estonia

Raal, Ain; **Orav, Anne; Gretšušnikova, Tatjana** *Natural product research* 2014 / p. 1091-1098 : tab

Composition of the oil and supercritical fluid CO₂ extract of sweet gale (*Myrica gale* L.) fruits

Sokolova, Maia; Orav, Anne; Koel, Mihkel; Kailas, Tiit; Müürisepp, Aleksander-Mati *Journal of essential oil research* 2005 / March/April, p. 188-191 : ill <https://www.tandfonline.com/doi/abs/10.1080/10412905.2005.9698871>

Composition of the oil from waste tires. 1, Fraction boiling at up to 160C

Orav, Anne; Kailas, Tiiu; Müürisepp, Aleksander-Mati; **Kann, Jüri** Proceedings of the Estonian Academy of Sciences. Chemistry 1999 / 1, p. 30-39

Composition of the oil from waste tires. 2, Fraction boiling at 160-180C

Orav, Anne; Kailas, Tiiu; Müürisepp, Aleksander-Mati; **Kann, Jüri** Proceedings of the Estonian Academy of Sciences. Chemistry 1999 / 3, p. 136-140

Comprehensive investigation of St.John's Worth (Hypericum perforatum) : polyphenolic compounds, essential oils and metals

Helmja, Kati; Vaher, Merike; Orav, Anne; Viitak, Anu; Püssa, Tõnu; **Kaljurand, Mihkel** 14th International Symposium on Separation Science : Primosten, Croatia, 30 Sept. - 3 Oct. 2008 2008 / p. 59

Content and composition of essential oil in oregano (Origanum vulgare) growing in Estonia

Raal, Ain; **Orav, Anne;** Ivask, Anu; Arak, Elmar The 6th International Pharmaceutical Conference "Science and Practice 2015" : November 5-6, 2015, Kaunas, Lithuania : book of abstracts 2015 / p. 62

Content and composition of essential oils in some Asteraceae species

Raal, Ain; Kaur, Helen; **Orav, Anne;** Arak, Elmar; **Kailas, Tiiu; Müürisepp, Aleksander-Mati** Proceedings of the Estonian Academy of Sciences 2011 / 1, p. 55-63

Content and composition of the essential oil of Chamomilla recutita (L.)Rauschert from some European countries

Orav, Anne; Raal, Ain; Arak, Elmar Natural product research 2010 / 1, p. 48-55

Content and composition of the essential oil of Thymus serpyllum L. growing wild in Estonia

Raal, Ain; Paaver, Urve; Arak, Elmar; **Orav, Anne** Medicina 2004 / 8, p. 795-800

Content of essential oil, terpenoids and polyphenols in commercial chamomile (Chamomilla recutita L. Rauschert) teas from different countries

Raal, Ain; **Orav, Anne;** Püssa, Tõnu; Valner, Catri; Malmiste, Birgit; Arak, Elmar Food chemistry 2012 / p. 632-638 : ill
<https://www.sciencedirect.com/science/article/pii/S0308814611013008>

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Orav, Anne; **Ivask, Kaire;** Raal, Ain; Arak, Elmar XXVI Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 26th Estonian Chemistry Days : abstracts of scientific conference 2000 / lk. 97

Determination of peppermint and orange aroma compounds in food and beverages

Orav, Anne; **Kann, Jüri** Proceedings of the Estonian Academy of Sciences. Chemistry 2001 / 4, p. 217-225 : ill

Determination of the essential oil composition of Acorus calamus by capillary gas chromatography

Gretšušnikova, Tatjana; Orav, Anne 32nd International Symposium on Capillary Chromatography and 5th GC-GC Symposium : May 26-30, 2008, Riva del Garda, Italy : abstract book 2008 / p. P24

Eesti koriandri, salvei ja teekummeli eeterliku õli koostise võrdlus nende välismaiste analoogidega

Orav, Anne; Kailas, Tiiu; Jeršova, M.; Raal, Ain; Arak, Elmar XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 97

Eesti männi ja kuuse okkaõli monoterpeense osa kapillaargaasikromatograafilise analüüsi

Orav, Anne; Kailas, Tiiu; **Liiv, Milana;** Aav, Riina XVI Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 16th Estonian chemistry days : abstracts of scientific conference 1995 / lk. 96-98

Eesti ravimtaimede eeterlike õlide koostisest

Orav, Anne; Kailas, Tiiu XXIII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid 1997 / lk. 92

Eestis kasvava hariliku kadaka okaste ja marjade eeterliku õli koostise määramine

Orav, Anne; Kailas, Tiiu; Müürisepp, Aleksander-Mati XXX Eesti keemiapäevad : teaduskonverentsi teesid = 30th Estonian Chemistry Days : abstracts of scientific conference 2007 / lk. 107-108

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Paaver, Urve; Raal, Ain; Karjel, Krista; Arak, Elmar; **Orav, Anne; Ivask, Kaire** Eesti Arst 2002 / 9, lk. 577

Eestis kasvava nõmm-liivatee (Thymus serpyllum L.) eeterliku õli sisalduse vastavus Euroopa farmakopöa nõuetele

Paaver, Urve; Raal, Ain; Arak, Elmar; Reiman, Raina; **Orav, Anne** Eesti Arst 2003 / 9, lk. 646

Eeterliku õli sisalduse määramine tillis (Anethum graveolens) kapillaargaasikromatograafilisel meetodil

Gretšušnikova, Tatjana; Orav, Anne XXX Eesti keemiapäevad : teaduskonverentsi teesid = 30th Estonian Chemistry Days : abstracts of scientific conference 2007 / lk. 26-27

Effect of storage on the essential oil composition of *Piper nigrum* L. fruits of different ripening states

Orav, Anne; Stulova, Irina; Kailas, Tiit; Müürisepp, Aleksander-Mati Journal of agricultural and food chemistry 2004 / p. 2582-2586 <https://pubmed.ncbi.nlm.nih.gov/15113161/>

Erinevate ekstrahatsioonimeetodite võrdlemine ravimtaimede eeterliku õli stereoanalüüsi abil

Ivask, Kaire; Orav, Anne XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 28

Essential oil composition of *Coriandrum sativum* L. fruits from different countries

Orav, Anne; Arak, Elmar; Raal, Ain Journal of essential oil bearing plants 2011 / p. 118-123

Essential oil composition of *Foeniculum vulgare* Mill. fruits from pharmacies in different countries

Raal, Ain; **Orav, Anne; Arak, Elmar** Natural product research 2012 / p. 1173-1178
<https://www.tandfonline.com/doi/full/10.1080/14786419.2010.535154>

Essential oil composition of *Pimpinella anisum* L. fruits from various European countries

Orav, Anne; Raal, Ain; Arak, Elmar Natural product research 2008 / 3, p. 227-232
https://www.researchgate.net/publication/5586276_Essential_oil_composition_of_Pimpinella_anisum_L_fruits_from_various_European_countries

Essential oil content and composition in commercial *Achillea millefolium* L. herbs from different countries

Raal, Ain; **Orav, Anne; Arak, Elmar** Journal of essential oil bearing plants 2012 / p. 22-31
https://www.academia.edu/56949794/Essential_Oil_Content_and_Composition_in_Commercial_Achillea_millefolium_L_Herbs_from_Different_Countries

Essential oil content and composition in *Tanacetum vulgare* L. herbs growing wild in Estonia

Raal, Ain; **Orav, Anne; Gretšušnikova, Tatjana** Journal of essential oil bearing plants 2014 / p. 670-675 : tab

Essential oil in *Betula* spp. leaves naturally growing in Estonia

Orav, Anne; Arak, Elmar; Boikova, Tatjana; Raal, Ain Biochemical systematics and ecology 2011 / p. 744-748

Identification and characterization of supercritical fluid extracts from herbs

Menaker, Anna; Kravets, Marina; Koel, Mihkel; Orav, Anne Comptes rendus chimie 2004 / p. 629-633 : ill

Identification of bioactive compounds in leaves and stems of *Aegopodium podagraria* by various analytical technics

Orav, Anne; Viitak, Anu; Helmja, Kati; Vaher, Merike 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. 144

Identification of bioactive compounds in the leaves and stems of *Aegopodium podagraria* by various analytical techniques

Orav, Anne; Viitak, Anu; Vaher, Merike Procedia chemistry 2010 / p. 152-160 : ill

Identification of biologically active compounds of plant origin

Menert, Anne; Lõugas, Tiina; Vokk, Raivo; Orav, Anne Flavour 2000 : perception, release, evaluation, formation, acceptance, nutrition/health : proceedings of the 6th Wartburg Aroma Symposium, Eisenach, April 10-13, 2000 2001 / [1] p

Identification of terpenes by gas chromatography - mass spectrometry

Orav, Anne Current practice of gas chromatography - mass spectrometry 2001 / p. 483-493

Koirohu (*Artemisia absinthium* L.) eeterliku õli koostis

Orav, Anne; Raal, Ain; Arak, Elmar; Kailas, Tiit XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 75-76

Kuivatusmeetodi ja peenendusastme mõju musta, roheline ja valge pipra (*Piper nigrum* L.) eeterliku õli koostisele

Orav, Anne; Haab, K.; Stulova, Irina XXVII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 27th Estonian Chemistry Days : abstracts of scientific conference 2001 / lk. 88-89

Kummiõli kasutamise võimalustest

Kann, Jüri; Kriis, J.; Marguste, Mart; Orav, Anne; Lindaru, E. XXV Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 25th Estonian Chemistry Days : abstracts of scientific conference 1999 / lk. 47

Musta, punase, roheline ja valge tee aroomide eraldamine ja uurimine

Gorbatšova, Jelena; Orav, Anne XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days

Phytochemical analysis of the essential oil of *Achillea millefolium* L. from various European countries

Orav, Anne; Arak, Elmar; Raal, Ain Natural product research 2006 / 12, p. 1082-1088

Phytochemical analysis of the essential oil of *Thymus serpyllum* L. growing wild in Estonia

Paaver, Urve; **Orav, Anne**; Arak, Elmar; Mäeorg, Uno; Raal, Ain Natural product research 2008 / 2, p. 108-115

Polyphenolic composition and antichlamydial effect of commercial peppermint (*Mentha x piperita* L.) teas

Kapp, Karmen; Hakala, Elina; Püssa, Tõnu; **Orav, Anne**; Raal, Ain; Hanski, L. Planta medica 2013 / p. 1224

Pune eeterliku õli koostise mass-spektromeetiline määramine

Ivask, Kaire; Orav, Anne; Raal, Ain; Arak, Elmar XXVI Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 26th Estonian Chemistry Days : abstracts of scientific conference 2000 / lk. 36

Pyrolysis of rubber waste

Kann, Jüri; Marguste, Mart; Orav, Anne; Kriis, Jüri Proceedings of the Estonian Academy of Sciences. Chemistry 1999 / 1, p. 40-43

Studies of the essential oil composition of some Estonian herbs

Orav, Anne; Kailas, Tiiu 23rd Estonian Chemistry Days : abstracts of scientific conference 1997 / p. 101

Study of essential oil from medicinal plants using gas chromatography and mass spectrometry

Raal, Ain; Arak, Elmar; Pudersell, K.; **Orav, Anne**; **Kailas, Tiiu** European journal of pharmaceutical sciences 2003 / Supplement 1, XVII Helsinki University Congress of Drug Research, p. P2.1

Study of rubber waste thermal processing

Kann, Jüri; Marguste, Mart; Orav, Anne; Müürisepp, Aleksander-Mati; Vössotskaja, V.; Kriis, J. 24th Estonian Chemistry Days : abstracts of scientific conference 1998 / p. 27

Säilitamise mõju mõnede vürtside eeterliku õli koostisele

Stulova, Irina; **Orav, Anne** XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 134

The content and composition of the essential oil found in *Carum carvi* L. commercial fruits obtained from different countries

Raal, Ain; Arak, Elmar; **Orav, Anne** The journal of essential oil research 2012 / p. 53-59

<https://www.tandfonline.com/doi/pdf/10.1080/10412905.2012.646016>

Variation in the composition of the essential oil of commercial *Valeriana officinalis* L. roots from different countries

Raal, Ain; Arak, Elmar; **Orav, Anne**; **Kailas, Tiiu**; **Müürisepp, Aleksander-Mati** Journal of essential oil research 2008 / 6, p. 524-529

https://www.researchgate.net/publication/241714499_Variation_in_the_Composition_of_the_Essential_Oil_of_Commercial_Valeriana_Officinalis_L_Roots_from_Different_Countries

Variation in the composition of the essential oil of *Valeriana officinalis* L. roots from Estonia

Raal, Ain; **Orav, Anne**; Arak, Elmar; **Kailas, Tiiu**; **Müürisepp, Aleksander-Mati** Proceedings of the Estonian Academy of Sciences. Chemistry 2007 / 2, p. 67-74

Variation in the composition of the essential oils, phenolic compounds and mineral elements of *Hypericum perforatum* L. growing in Estonia

Helmja, Kati; **Vaher, Merike**; Püssa, Tõnu; **Orav, Anne**; **Viitak, Anu**; **Levandi, Tuuli**; **Kaljurand, Mihkel** Natural product research 2011 / p. 496-510

Volatile constituents of *Matricaria matricaroides*

Orav, Anne; Kailas, Tiiu; **Kann, Jüri** Journal of essential oil research 1999 / p. 243-245

Изучение газохроматографического разделения непредельных углеводов : автореферат ... кандидата химических наук (02.072)

Orav, Anne 1972 https://www.ester.ee/record=b1353129*est

Разделение фенолов методом газо-жидкостной хроматографии

Karus, A.; **Orav, Anne**; **Sepp, Helvi**; **Tanner, Jüri**; **Köstner, Ado** X студенческая научно-техническая конференция высших учебных заведений Прибалтики, Белорусской ССР и Калининградской области : аннотации научных работ 1964 / с. 169-170
https://www.ester.ee/record=b1749611*est <http://www.digar.ee/id/nlib-digar:376945>