

Activation and reactivity of Estonian oil shale cyclone ash towards SO₂ binding

Kaljuvee, Tiit; Trass, Olev; **Pihu, Tõnu**; **Konist, Alar**; **Kuusik, Rein**, **keemik** Journal of thermal analysis and calorimetry 2015 / p. 19-28 : ill <https://doi.org/10.1007/s10973-014-4308-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Aqueous carbonation of oil shale wastes from Estonian power production for CO₂ fixation and PCC production

Uibu, Mai; **Velts, Olga**; **Kuusik, Rein**, **keemik** C YSENI 2011 : the 8th Annual International Conference of Young Scientist on Energy Issues, May 26-27, 2011, Kaunas, Lithuania : conference proceedings 2011 / p. 415-424 : ill

Calcium extraction from Estonian industrial wastes based on ammonium solvents

Tamm, Kadriann; **Viies, Regiina**; **Kuusik, Rein**, **keemik**; **Uibu, Mai** Energy and sustainability VII 2018 / p. 465-476 : ill <https://doi.org/10.2495/ESUS170431> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Carbon capture and fixation using lime-containing wastes : the influence of aqueous phase composition on Ca dissolution from oil shale ash

Uibu, Mai; **Kuusik, Rein**, **keemik** Energy procedia 2013 / p. 5913-5920 : ill <https://doi.org/10.1016/j.egypro.2013.06.517> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Carbon dioxide sequestration in power plant Ca-rich ash waste deposits

Leben, Kristjan; **Mõtsep, Riho**; **Konist, Alar**; **Pihu, Tõnu**; **Kirsimäe, Kalle** Oil shale 2021 / p. 65–88 : ill <https://doi.org/10.3176/oil.2021.1.04> https://kirj.ee/wp-content/plugins/kirj/pub/OS-1-2021-65-88_20210222125803.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Catalytic effect of oil shale ash on CO₂ gasification of leached wheat straw and reed chars

Link, Siim; Tran, Khanh-Quang; Bach, Quang-Vu; Yrjas, Patrik; **Rosin, Argo** Energy 2018 / p. 906-913 <https://doi.org/10.1016/j.energy.2018.04.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Changes in trace element contents in ashes of oil shale fueled PF and CFB boilers during operation

Reinik, Janek; **Irha, Natalya**; **Steinnes, Eiliv**; **Urb, Gary**; **Jefimova, Jekaterina**; **Piirisalu, Eero**; **Loosaar, Jüri** Fuel Processing Technology 2013 / p. 174 - 181 <https://doi.org/10.1016/j.fuproc.2013.06.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

CO₂ mineralisation : concept for co-utilization of oil shale energetics waste streams in CaCO₃ production

Velts, Olga; **Uibu, Mai**; **Kallas, Juha**; **Kuusik, Rein**, **keemik** Energy procedia 2013 / p. 5921-5928 : ill <https://www.sciencedirect.com/science/article/pii/S1876610213007613> <https://doi.org/10.1016/j.egypro.2013.06.518> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

CO₂ mineralisation : production of CaCO₃-type material in a continuous flow disintegrator-reactor

Velts, Olga; **Kindsigo, Merit**; **Uibu, Mai**; **Kallas, Juha**; **Kuusik, Rein**, **keemik** Energy procedia 2014 / p. 5904-5911 : ill <https://doi.org/10.1016/j.egypro.2014.11.625> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

CO₂ mineralization by burnt oil shale and cement bypass dust : effect of operating temperature and pre-treatment

Yörük, Can Rüstü; **Uibu, Mai**; **Usta, Mustafa Cem**; **Kaljuvee, Tiit**; **Trikkell, Andres** Journal of thermal analysis and calorimetry 2020 / p. 991–999 : ill <https://doi.org/10.1007/s10973-020-09349-9> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Composition and properties of oil shale ash concrete

Raado, Lembi-Merike; **Hain, Tiina**; **Liisma, Eneli**; **Kuusik, Rein**, **keemik** Oil shale 2014 / p. 147-160 : ill https://artiklid.elnet.ee/record=b2673716*est <https://doi.org/10.3176/oil.2014.2.05> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electric properties of anorthite ceramics prepared from illitic clay and oil shale ash

Csaki, Štefan; **Štubna, Igor**; **Kaljuvee, Tiit**; **Dobron, Patrik**; **Lukač, František**; **Trnik, Anton** Journal of materials research and technology 2022 / p. 4164-4173 <https://doi.org/10.1016/j.jmrt.2022.11.030> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

From waste to value : CaCO₃ crystallization on the basis of waste oil shale ash

Velts, Olga; **Uibu, Mai**; **Kallas, Juha**; **Kuusik, Rein**, **keemik** Proceedings of the Air & Waste Management Association's (A&WMA) 105th Annual Conference & Exhibition 2012 / [10] p. : ill

Geochemical study of stable carbon and oxygen isotopes in landfilled Ca-rich oil shale ash

Leben, Kristjan; **Mõtsep, Riho**; **Paaver, Peeter**; **Konist, Alar**; **Pihu, Tõnu**; **Kirsimäe, Kalle** Estonian journal of earth sciences 2020 / p. 134-142 : ill <https://doi.org/10.3176/earth.2020.09> https://kirj.ee/public/Estonian_Journal_of_Earth_Sciences/2020/issue_3/earth-2020-3-121-133.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Granulation of oil shale ashes and the potentiality of use the product in agriculture

Hälvin, Herki; Kaljuvee, Tiit; Kuusik, Rein, keemik Proceedings of the 27th International Conference on Solid Waste Technology and Management : March 11-14, 2012, Philadelphia, PA U.S.A 2012 / p. 1201-1209 : ill

Growth of *Scenedesmus obliquus* under artificial flue gas with a high sulphur concentration neutralized with oil shale ash

Podkuiko, Lara; Olt, Jüri; Kikas, Timo Proceedings of the Estonian Academy of Sciences 2017 / p. 151-158 : ill

<https://doi.org/10.3176/proc.2017.2.03> http://www.ester.ee/record=b2355998*est https://artiklid.elnet.ee/record=b2820929*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Heating rate effect on the thermal behavior of some clays and their blends with oil shale ash additives

Kaljuvee, Tiit; Štubna, Igor; Hulan, Tomaš; **Kuusik, Rein, keemik** Journal of thermal analysis and calorimetry 2017 / p. 33-45 : ill

<https://doi.org/10.1007/s10973-016-5347-4> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High temperature corrosion of boiler steels in hydrochloric atmosphere under oil shale ashes

Priss, Jelena; Rojacz, Harald; **Klevtsov, Ivan; Dedov, Andrei;** Winkelmann, Horst; Badisch, Ewald Corrosion science 2014 / p. 36-44 : ill

<https://doi.org/10.1016/j.corsci.2013.12.016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-temperature chlorine corrosion in presence of sulfurcontaining and potassium external deposits

Priss, Jelena; Klevtsov, Ivan; Winkelmann, Horst Annals of DAAAM for 2012 & Proceedings of the 23rd International DAAAM Symposium : Intelligent Manufacturing & Automation 2012 / p. 0911-0916 : ill [CD-ROM]

https://www.daaam.info/Downloads/Pdfs/proceedings/proceedings_2012/211.pdf

Influence of oil shale ash addition on thermophysical processes in an illitic clay during heating

Csaki, Štefan; **Kaljuvee, Tiit;** Štubna, Igor; Dobron, Patrik; Vozar, Libor ECerS 2017 : 15th Conference & Exhibition of the European Ceramic Society, July 9–13, 2017, Budapest, Hungary : book of abstracts 2017 / p. 579

<https://static.akcongress.com/downloads/ecers/ecers2017-abstract-book.pdf>

Influence of the post-granulation treatment on the thermal behaviour and leachability characteristics of Estonian oil shale ashes

Kaljuvee, Tiit; Jefimova, Jekaterina; Loide, Valli; **Uibu, Mai; Einard, Marve** Journal of thermal analysis and calorimetry 2018 / p. 47–57 : ill

<https://doi.org/10.1007/s10973-017-6875-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of the post-granulation treatment on the thermal behaviour of Estonian oil shale ashes

Kaljuvee, Tiit; Jefimova, Jekaterina; Loide, Valli; **Uibu, Mai; Einard, Marve; Kuusik, Rein, keemik** JTACC+V4 : 1st Journal of Thermal Analysis and Calorimetry Conference and 6th V4 (Joint Czech-Hungarian-Polish-Slovakian) Thermoanalytical Conference: Budapest Hungary, June 6-9, 2017 : Book of Abstracts 2017 / p. 105

<https://static.akcongress.com/downloads/jtacc/jtacc2017-book-of-abstracts.pdf>

Influence of waste products from electricity and cement industries on the thermal behaviour of Estonian clay from Kunda deposit

Kaljuvee, Tiit; Štubna, Igor; Hulan, Tomaš; Csaki, Štefan; **Uibu, Mai; Jefimova, Jekaterina** Journal of thermal analysis and calorimetry 2019 / p. 2635–2650 : ill

<https://doi.org/10.1007/s10973-019-08319-0> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Leaching behaviour of Estonian oil shale ash-based construction mortars

Irha, Natalja; **Uibu, Mai;** Jefimova, Jekaterina; **Raado, Lembi-Merike; Hain, Tiina; Kuusik, Rein, keemik** Oil shale 2014 / p. 394-411 : ill

https://artiklid.elnet.ee/record=b2704135*est <https://doi.org/10.3176/oil.2014.4.07> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Leaching of PAHs from agricultural soils treated with oil shale combustion ash : an experimental study

Jefimova, Jekaterina; Adamson, Jasper; Reinik, Janek; Irha, Natalja Environmental science and pollution research 2016 / p. 20862-20870 : ill

<https://doi.org/10.1007/s11356-016-7300-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Leaching thermodynamics and kinetics of oil shale waste key components

Tamm, Kadriann; Kallaste, Priit; Uibu, Mai; Kallas, Juha; Velts-Jänes, Olga; Kuusik, Rein, keemik Oil shale 2016 / p. 80-99 : ill

https://artiklid.elnet.ee/record=b2760706*est <https://doi.org/10.3176/oil.2016.1.07> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Long-term mineral transformation of Ca-rich oil shale ash waste

Leben, Kristjan; Mõtlep, Riho; Paaver, Peeter; **Konist, Alar; Pihu, Tõnu** Science of the total environment 2019 / p. 1404-1415 : ill

<https://doi.org/10.1016/j.scitotenv.2018.12.326> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Main physicochemical factors affecting the aqueous carbonation of oil shale ash

Uibu, Mai; Kuusik, Rein, keemik Minerals engineering 2014 / p. 64-70 : ill

<https://doi.org/10.1016/j.mineng.2013.10.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mineral sequestration of CO₂ by carbonation of Ca-rich oil shale ash in natural conditions

Konist, Alar; Maaten, Birgit; Loo, Lauri; Nešumajev, Dmitri; Pihu, Tõnu Oil shale 2016 / p. 248-259 : ill

<https://doi.org/10.3176/oil.2016.3.04> https://artiklid.elnet.ee/record=b2798381*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Modelling continuous process for precipitated calcium carbonate production from oil shale ash

Tamm, Kadriann; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik GHGT-13 : 13th International Conference on Greenhouse Gas Control Technologies : November 14th-18th, 2016, SwissTech Convention Center - Lausanne, Switzerland : conference programme 2016 / p. 67

Modelling continuous process for precipitated calcium carbonate production from oil shale ash

Tamm, Kadriann; Kallas, Juha; Kuusik, Rein, keemik; Uibu, Mai Energy procedia 2017 / p. 5409-5416 : ill

<https://doi.org/10.1016/j.egypro.2017.03.1685> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Oil shale ash based backfilling concrete - strength development, mineral transformations and leachability

Uibu, Mai; Somelar, Peeter; Raado, Lembi-Merike; Irha, Natalja; Hain, Tiina; Koroljova, Arina; Kuusik, Rein, keemik

Construction and building materials 2016 / p. 620-630 : ill <https://doi.org/10.1016/j.conbuildmat.2015.10.197> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Open-air deposition of Estonian oil shale ash : formation, state of art, problems and prospects for the abatement of environmental impact

Kuusik, Rein, keemik; Uibu, Mai; Kirsimäe, Kalle; Mõtlep, Riho; Meriste, Tõnis Oil shale 2012 / p. 376-403 : ill

https://kirj.ee/public/oilshale_pdf/2012/issue_4/Oil-2012-4-376-403.pdf

PAHs in leachates from thermal power plant wastes and ash-based construction materials

Irha, Natalja; Reinik, Janek; Jefimova, Jekaterina; Koroljova, Arina; Raado, Lembi-Merike; Hain, Tiina; Uibu, Mai; Kuusik, Rein, keemik Environmental science and pollution research 2015 / p. 11877-11889 : ill <https://doi.org/10.1007/s11356-015-4459-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Physical-mechanical properties and morphology of filled low-density polypropylene: comparative study on calcium carbonate with oil shale and coal ashes

Krasnou, Illia; Nadeem, Faisal; Gregor, Andre; Yörük, Can Rüstü; Krumme, Andres Journal of Vinyl and Additive Technology 2022 / p. 94-103 : ill <https://doi.org/10.1002/vnl.21869> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Potential of solid residues from power plants as thermochemical energy storage materials

Maaten, Birgit; Konist, Alar; Siirde, Andres Journal of thermal analysis and calorimetry 2020 / p. 1799-1805

<https://doi.org/10.1007/s10973-020-09948-6> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Properties and environmental impact of oil shale ash landfills

Pihu, Tõnu; Konist, Alar; Puura, Erik; Liira, Martin; Kirsimäe, Kalle Oil shale 2019 / p. 257-270 : ill

http://www.kirj.ee/public/oilshale_pdf/2019/issue_2/OS-2019-2-257-270.pdf <https://doi.org/10.3176/oil.2019.2.01> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Prospects in waste oil shale ash sustainable valorization

Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik World Academy of Science, Engineering and Technology 2011 / p. 451-455 : ill

Strong and chemically inert sinter crystallised glass ceramics based on Estonian oil shale ash

Maragoni, Mauro; Ponsot, I.; Kuusik, Rein, keemik; Bernardo, E. Advances in applied ceramics 2014 / p. 120-128 : ill

<https://doi.org/10.1179/1743676113Y.0000000132> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Studying of internal and rheological properties of polyethylene-oil shale ash composites

Süld, Tiia-Maaja; Kaljuvee, Tiit; Viikna, Anti The 28th International Conference of Polymer Processing Society (PPS-28), Pattaya, Thailand, December 11-14, 2012 : abstract book 2012 / p. 609

Techno-economic modelling of the Baltic CCUS onshore scenario

Šogenova, Alla; Šogenov, Kazbulat; Uibu, Mai; Kuusik, Rein, keemik; Simmer, Karl Baltic Carbon Forum 2022 / p. 4

<https://doi.org/10.21595/bcf.2022.22841>

The composition and properties of ash in the context of the modernisation of oil shale industry

Uibu, Mai; Tamm, Kadriann; Viires, Regiina; Reinik, Janek; Somelar, Peeter; Raado, Lembi-Merike; Hain, Tiina; Kuusik, Rein, keemik; Triikkel, Andres Oil shale 2021 / p. 155-176 : ill <https://doi.org/10.3176/oil.2021.2.04> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The growth and nutrients status of conifers on ash-treated cutaway peatland

Kikamägi, Karin; Ots, Katri; Kuznetsova, Tatiana; **Pototski, Aleksander** Trees : structure and function 2014 / p. 53-64 : ill
<https://doi.org/10.1007/s00468-013-0929-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal behavior of ceramic bodies based on Estonian clay from the Arumetsa deposit with oil shale ash and clinker dust additives

Kaljuvee, Tiit; Uibu, Mai; Einard, Marve; Traksmäa, Rainer; Viljus, Mart; Jefimova, Jekaterina; **Trikkel, Andres** Processes 2022 / art. 46 <https://doi.org/10.3390/pr10010046> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal behavior of some Estonian clays and their mixtures with oil shale ash additives

Kaljuvee, Tiit; Štubna, Igor; Somelar, Peeter; Mikli, Valdek; Kuusik, Rein, keemik Journal of thermal analysis and calorimetry 2014 / p. 891-899 : ill <https://doi.org/10.1007/s10973-014-3797-0> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal behaviour of ceramic bodies based on Estonian clay from Arumetsa deposit with oil shale ash or/and clinker dust additives

Kaljuvee, Tiit; Štubna, Igor; Hulan, Tomaš; Uibu, Mai; Einard, Marve; Traksmäa, Rainer; Viljus, Mart; Jefimova, Jekaterina; **Trikkel, Andres** ICTAC 2020 : 17th International Congress on Thermal Analysis and Calorimetry : 8th Joint Czech-Hungarian-Polish-Slovakian Thermoanalytical Conference (V4 8) : 14th Conference on Calorimetry and Thermal Analysis of the Polish Society of Calorimetry and Thermal Analysis (CCTA 14), online conference, [Kraków], 29 August - 2 September 2021 : e-book of abstracts, 2021 2021 / p. 68 https://cris.vub.be/ws/portalfiles/portal/74787050/_e_Book_of_Abstracts_ICTAC2020.pdf

Thermodynamic and kinetic study of CaS in aqueous systems

Tamm, Kadriann; Uibu, Mai; Kallas, Juha; Kallaste, Priit; Velts-Jänes, Olga; Kuusik, Rein, keemik Fuel processing technology 2016 / p. 242-249 : ill <https://doi.org/10.1016/j.fuproc.2015.10.029> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Trace elements in oil shale ashes and waste wood ashes and their leachability with a focus on chromium

Roosalu, Kati; Kamenev, Inna; Tanilas, Kristel; Reinik, Janek; Järvik, Oliver Oil shale 2025 / p. 273-290 : ill
<https://doi.org/10.3176/oil.2025.3.02>

Transformations of sulfides during aqueous carbonation of oil shale ash

Tamm, Kadriann; Kuusik, Rein, keemik; Uibu, Mai; Kallas, Juha GHGT-11 Proceedings of the 11th International Conference on Greenhouse Gas Control Technologies, 18-22 November 2012, Kyoto, Japan 2013 / p. 5905-5912 : ill
<https://doi.org/10.1016/j.egypro.2013.06.516> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Utilization of oil shale combustion wastes for PCC production : quantifying the kinetics of Ca(OH)_2 and $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ dissolution in aqueous systems

Uibu, Mai; Tamm, Kadriann; Velts-Jänes, Olga; Kallaste, Priit; Kuusik, Rein, keemik; Kallas, Juha Fuel processing technology 2015 / p. 156-164 : ill <https://doi.org/10.1016/j.fuproc.2015.09.010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Waste oil shale ash as a novel source of calcium for precipitated calcium carbonate : carbonation mechanism, modeling, and product characterization

Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik Journal of hazardous materials 2011 / p. 139-146 : ill