

Advances in heat transfer : proceedings of the 7th Baltic Heat Transfer Conference : Tallinn, Estonia, August 24-26, 2015
2015 http://www.esther.ee/record=b4494547*est

Ash and flue gas from oil shale oxy-fuel circulating fluidized bed combustion

Loo, Lauri; Konist, Alar; Nešumajev, Dmitri; Pihu, Tõnu; Maaten, Birgit; Siirde, Andres *Energies* 2018 / art. 1218, 12 p. : ill
<https://doi.org/10.3390/en11051218> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ash characterisation formed under different oxy-fuel circulating fluidized bed conditions

Baqain, Mais Hanna Suleiman; Yörükcü, Can Rüstü; Nešumajev, Dmitri; Järvi, Oliver; Konist, Alar *Fuel* 2023 / art. 127244
<https://doi.org/10.1016/j.fuel.2022.127244> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Calculation of the amount of Estonian oil shale products from combustion in regular and oxy-fuel mode in a CFB boiler

Konist, Alar; Loo, Lauri; Valtsev, Aleksandr; Maaten, Birgit; Siirde, Andres; Nešumajev, Dmitri; Pihu, Tõnu *Oil shale* 2014 / p. 211-224 : ill https://artiklid.elnet.ee/record=b2680497*est <https://doi.org/10.3176/oil.2014.3.02> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Carbon dioxide emission factors for oxy-fuel CFBC and aqueous carbonation of the Ca-rich oil shale ash

Loo, Lauri; Maaten, Birgit; Konist, Alar; Siirde, Andres; Nešumajev, Dmitri; Pihu, Tõnu *Energy procedia* 2017 / p. 144-149 : ill
<https://doi.org/10.1016/j.egypro.2017.09.034> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

CFD modelling of the tubular air preheater in boiler firing oil shale

Nešumajev, Dmitri; Ots, Arvo *Advances in heat transfer : proceedings of the 7th Baltic Heat Transfer Conference : Tallinn, Estonia, August 24-26, 2015* 2015 / p. 257-262 : ill

Chemical and physical characterization of oil shale combustion emissions in Estonia

Aurela, Minna; Mylläri, Fanni; Konist, Alar; Saarikoski, Sanna; Olin, Miska; Simonen, Pauli; Bloss, Matthew; Nešumajev, Dmitri; Salo, Laura; Maasikmets, Marek; Sipilä, Mikko; Maso, Mikka Dal; Keskinen, Jorma; Timonen, Hilikka; Rönkkö, Topi *Atmospheric Environment: X* 2021 / art. 100139, 9 p. : ill <https://doi.org/10.1016/j.aeaoa.2021.100139> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Co-combustion of coal and oil shale blends in circulating fluidized bed boilers

Konist, Alar; Pikkor, Heliis; Nešumajev, Dmitri; Loo, Lauri; Järvi, Oliver; Siirde, Andres; Pihu, Tõnu *Oil shale* 2019 / p. 114-127 : ill <https://doi.org/10.3176/oil.2019.2S.03> http://www.kirj.ee/public/oilshale_pdf/2019/issue_2S/OS-2019-2S-114-127.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Combustion as a possible solution to pyrolytic wastewater utilization

Konist, Alar; Järvi, Oliver; Pihu, Tõnu; Nešumajev, Dmitri *Chemical engineering transactions* 2018 / p. 859-864 : ill
<https://doi.org/10.3303/CET1870144> [Journal metrics at Scopus](#) [Article at Scopus](#)

Combustion of Baltic oil shale in boilers with fluidized bed combustion

Nešumajev, Dmitri; Ots, Arvo; Parve, Toomas; Pihu, Tõnu; Plamus, Kristjan; Prikk, Arvi *Power technology and engineering* 2011 / p. 382-385

Combustion of fuel mixtures in oil shale fired CFBC and PC boilers

Pihu, Tõnu; Konist, Alar; Nešumajev, Dmitri; Loo, Lauri; Veinjärv, Rain *International Symposium "Oil shale 100 years" : Estonia, Sept. 20-23, 2016 : [abstracts] 2016* / p. 22

Combustion of fuel mixtures in oil shale fired CFBC and PC boilers

Pihu, Tõnu; Konist, Alar; Nešumajev, Dmitri; Loo, Lauri *International IX Oil Shale Conference 2017 "Oil Shale Industry in Circular Economy" : 15th-16th November 2017, [Jõhvi], Ida-Viru County, Estonia : summary 2017* / p. 24-25
http://www.esther.ee/record=b4751282*est

Comparison of the most likely low-emission electricity production systems in Estonia

Baird, Zachariah Steven; Nešumajev, Dmitri; Järvi, Oliver; Powell, Kody M. *PLoS ONE* 2021 / e0261780, 37 p
<https://doi.org/10.1371/journal.pone.0261780> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Decomposition kinetics of American, Chinese and Estonian oil shales kerogen

Maaten, Birgit; Loo, Lauri; Konist, Alar; Nešumajev, Dmitri; Pihu, Tõnu; Külaots, Indrek *Oil shale* 2016 / p. 167-183 : ill
<https://doi.org/10.3176/oil.2016.2.05> https://artiklid.elnet.ee/record=b2778470*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dmitri Nešumajev, tehnika- ja arvutiteadused [Võrguväljaanne]

Nešumajev, Dmitri *Eesti Teaduste Akadeemia : Youtube kanal* 2021 / video [Dmitri Nešumajev, tehnika- ja arvutiteadused](#)

Efektiiwsed väikekatlad

Ots, Arvo; Laid, Jaan; Nešumajev, Dmitri; Tiikma, Toomas Teadusmõtte Eestis : tehnikateadused 2002 / lk. 103-106 : ill

Efektiivsed väikekatlad

Ots, Arvo; Laid, Jaan; Nešumajev, Dmitri; Tiikma, Toomas Keskkonnatehnika 2000 / 6, lk. 6-8 : ill
https://artiklid.elnet.ee/record=b1005562*est

Efektiivsed väikekatlad

Ots, Arvo; Laid, Jaan; Nešumajev, Dmitri; Tiikma, Toomas Ehitaja 2003 / 4, lk. 86-87

Effective universal water heating boiler for wood pellets

Ots, Arvo; Laid, Jaan; Nešumajev, Dmitri; Tiikma, Toomas; Must, P. Proceedings of World Sustainable Energy Days 2004 : Wels, Austria, 3-4.03.04 2004 / p. 344

Effects of surface with regular roughness on convective heat transfer

Nešumajev, Dmitri; Tiikma, Toomas; Träss, Olev Progress in Engineering Heat Transfer : proceedings of the 3rd Baltic Heat Transfer Conference 1999 / p. 407-414

The emissions of NOx, SO2, CO and decomposition of carbonates during oxyfuel combustion of low heating value semicoke in CFB pilot facility

Nešumajev, Dmitri; Baqain, Mais Hanna Suleiman; Konist, Alar Fuel 2024 / art. 132563, 10 p. : ill
<https://doi.org/10.1016/j.fuel.2024.132563>

Experimental and numerical investigation of combined heat transfer augmentation technique in gas-heated channels

Nešumajev, Dmitri; Tiikma, Toomas HEFAT2005 : 4th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics : 18-23 Sept.2005, Cairo, Egypt 2005 / [6] p. : ill

Experimental and numerical investigation of combined heat transfer enhancement technique in gas-heated channels

Nešumajev, Dmitri 2005 https://www.ester.ee/record=b2073569*est

Experimental investigation of various turbulator inserts in gas-heated channels

Nešumajev, Dmitri; Ots, Arvo; Laid, Jaan; Tiikma, Toomas Experimental thermal and fluid science 2004 / 8, p. 877-886 : ill
<https://www.sciencedirect.com/science/article/pii/S0894177704000160>

Firing Estonian oil shale fuel in CFB boilers

Loosaar, Jüri; Arro, Hendrik; Nešumajev, Dmitri; Plamus, Kristjan; Ots, Arvo; Parve, Teet; Pihu, Tõnu; Prikk, Arvi; Rušeljuk, Pavel Circulating Fluidized Bed Technology IX : proceedings of the 9th International Conference on Circulating Fluidized Beds in conjunction with 4th International VGB Workshop "Operating Experience with Fluidized Bed Firing Systems" : May 13-16, 2008, Hamburg, Germany 2008 / p. 601-606 : ill

Firing Estonian oil shale fuel with different quality in circulating fluidized bed boiler

Plamus, Kristjan; Nešumajev, Dmitri; Ots, Arvo; Parve, Teet; Pihu, Tõnu; Prikk, Arvi; Rootamm, Rein International Oil Shale Symposium : Tallinn, Estonia, June 8-11, 2009 : future energy solutions : come and share your vision! 2009 / p. 64-65
http://www.ester.ee/record=b4775098*est

Firing Estonian oil shale in CFB boilers - ash balance and behaviour of carbonate minerals

Plamus, Kristjan; Ots, Arvo; Pihu, Tõnu; Nešumajev, Dmitri Oil shale 2011 / 1, p. 58-67 : ill
https://artiklid.elnet.ee/record=b2284449*est

Firing Estonian oil shale of higher quality in CFB boilers - environmental and economic impact

Plamus, Kristjan; Soosaar, Sulev; Ots, Arvo; Nešumajev, Dmitri Oil shale 2011 / 1S, p. 113-126 : ill
https://artiklid.elnet.ee/record=b2286554*est

Full scale experiments on application of compound heat transfer enhancement technique in fire-tube boilers

Nešumajev, Dmitri; Ots, Arvo; Poobus, Arvi Extended abstracts : 2011 Baltic Heat Transfer Conference : 6-th BHTC : August 24-26, 2011 in Tampere, Finland 2011 / p. 55-56

Full-scale tests on the co-firing of peat and oil shale in an oil shale fired circulating fluidized bed boiler

Pihu, Tõnu; Konist, Alar; Nešumajev, Dmitri; Loo, Lauri; Molodtsov, Artjom; Valtsev, Aleksandr Oil shale 2017 / p. 250-262 : ill
http://www.ester.ee/record=b1072685*est <https://doi.org/10.3176/oil.2017.3.04> https://artiklid.elnet.ee/record=b2824316*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Heat transfer augmentation and pressure drop of turbulator inserts in gas-heated channels

Nešumajev, Dmitri; Ots, Arvo; Laid, Jaan; Tiikma, Toomas Advances in heat transfer engineering : proceedings of the Fourth Baltic Heat Transfer Conference : August 25-27, 2003, [Kaunas, Lithuania] 2003 / p. 565-572 : ill

Kliimamuutuste leevendamine läbi CCS JA CCU tehnoloogiate (ClimMit) : lõpparuanne

Siirde, Andres; Järvik, Oliver; Nešumajev, Dmitri; Gušča, Julija; Uibu, Mai; Triikkel, Andres; Pihu, Tõnu; Konist, Alar; Maaten, Birgit; Liira, Martin; Hazak, Aaro; Männasoo, Kadri; Sander, Priit; Kask, Kaia; Poltimäe, Helen; Yörük, Can Rüstü 2021

Large-scale experimental investigation of heat transfer augmentation technique in gas-heated channels

Nešumajev, Dmitri; Pihu, Tõnu; Konist, Alar; Siirde, Andres International Heat Transfer Conference 16 : 2018, 10-15 August, Beijing, China 2018 / p. 5619-5626 <http://dx.doi.org/10.1615/IHTC16.hte.024075>

Low grade fuel - oil shale and biomass co-combustion in CFB boiler

Konist, Alar; Pihu, Tõnu; Nešumajev, Dmitri; Külaots, Indrek Oil shale 2013 / p. 294-304 : ill

https://artiklid.elnet.ee/record=b2631751*est <https://doi.org/10.3176/oil.2013.2S.09> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Method of small samples for assessment of properties of power plant components : sampling devices and stress concentration in dimples

Dedov, Andrei; Klevtsov, Ivan; Lausmaa, Toomas; Nešumajev, Dmitri Baltica VII : life management and maintenance for power plants. Vol. 2 2007 / p. 180-192 : ill

A method of using miniature samples for determining mechanical properties of metal of power-generating equipment at thermal power stations in Estonia

Klevtsov, Ivan; Nešumajev, Dmitri; Dedov, Andrei Thermal engineering 2009 / p. 426-431

<https://doi.org/10.1134/S0040601509050127>

Mineral and heavy metal composition of oil shale ash from oxyfuel combustion

Konist, Alar; Nešumajev, Dmitri; Baird, Zachariah Steven; Anthony, Edward J.; Maasikmets, Marek; Järvik, Oliver ACS Omega 2020 / p. 32498–32506 : ill <https://doi.org/10.1021/acsomega.0c04466> [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](#)

Natural convection heat transfer phenomena near the surface covered by riblets

Nešumajev, Dmitri; Käär, Harri; Tiikma, Toomas Proceedings of the Estonian Academy of Sciences. Engineering 1998 / 3, p. 189-198: ill

NO_x and N₂O emissions from Ca-rich fuel conversion in oxyfuel circulating fluidized bed combustion

Baqain, Mais Hanna Suleiman; Nešumajev, Dmitri; Konist, Alar Thermal science and engineering progress 2023 / art. 101938

<https://doi.org/10.1016/j.tsep.2023.101938> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Oil shale oxyfuel CFB combustion = Oxyfuel tehnoloogia rakendamise põlevkivi CFB põletamisele

Baqain, Mais Hanna Suleiman 2024 https://www.ester.ee/record=b5685168*est <https://digikogu.taltech.ee/et/Item/0fdc7a64-d5bc-4310-aec2-88bfd867bce9> <https://doi.org/10.23658/taltech.26/2024>

Oil shale pulverized firing : boiler efficiency, ash balance and flue gas composition

Konist, Alar; Pihu, Tõnu; Nešumajev, Dmitri; Siirde, Andres Oil shale 2013 / p. 6-18 : ill https://artiklid.elnet.ee/record=b2604229*est

<https://doi.org/10.3176/oil.2013.1.02> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Oxyfuel conversion of Ca-rich fuel in a 60 kWth circulating fluidized bed

Baqain, Mais Hanna Suleiman; Nešumajev, Dmitri; Konist, Alar Proceedings of the 16th Greenhouse Gas Control Technologies Conference (GHGT-16) 23-24 Oct 2022 2022 / p. 1-10 <https://doi.org/10.2139/ssrn.4276982>

Oxygen influence on Estonian kukersite oil shale devolatilization and char combustion

Loo, Lauri; Maaten, Birgit; Nešumajev, Dmitri; Konist, Alar Oil shale 2017 / p. 219-231 : ill <https://doi.org/10.3176/oil.2017.3.02>

http://www.ester.ee/record=b1072685*est https://artiklid.elnet.ee/record=b2824314*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Peculiarities of heat balance and thermal efficiency estimations at oil shale combustion

Nešumajev, Dmitri; Ots, Arvo; Plamus, Kristjan International Oil Shale Symposium : Tallinn, Estonia, June 8-11, 2009 : future energy solutions : come and share your vision! 2009 / p. 64 http://www.ester.ee/record=b4775098*est

Power plant ash composition transformations during load cycling [Online resource]

Rummel, Leo; Nešumajev, Dmitri; Konist, Alar Chemical engineering transactions 2018 / p. 655-660 : ill

<https://doi.org/10.3303/CET1870110> [Journal metrics at Scopus](#) [Article at Scopus](#)

Power plant fuel consumption rate during load cycling

Nešumajev, Dmitri; Rummel, Leo; Konist, Alar; Ots, Arvo; Parve, Teet Applied energy 2018 / p. 124-135 : ill
<https://doi.org/10.1016/j.apenergy.2018.04.063> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Quantification of oil shale industry ash flows – their chemical and mineralogical composition

Ummik, Mari-Liis; Tamm, Kadriann; Järvik, Oliver; Nešumajev, Dmitri; Roosalu, Kati; Pihu, Tõnu; Konist, Alar Oil shale 2025 / p. 129-166 <https://doi.org/10.3176/oil.2025.2.01>

Radiation heat transfer of turbulator inserts in gas heated channels

Nešumajev, Dmitri; Tiikma, Toomas Heat transfer research 2008 / 5, p. 403-412 : ill
<https://www.dl.begellhouse.com/journals/46784ef93dddf27.337369e71ba68ce8.4d472a5f154ab085.html>

Radiation heat transfer of turbulator inserts in gas-heated channels

Nešumajev, Dmitri; Tiikma, Toomas Advances in Heat Transfer : proceedings of the Baltic Heat Transfer Conference : September 19-21, 2007. Volume 2 2007 / p. 525-531 : ill
<https://www.dl.begellhouse.com/journals/46784ef93dddf27.337369e71ba68ce8.4d472a5f154ab085.html>

Review of compound passive heat transfer enhancement techniques

Nešumajev, Dmitri; Tiikma, Toomas Advances in Heat Transfer : proceedings of the Baltic Heat Transfer Conference : September 19-21, 2007. Volume 1 2007 / p. 410-424 : ill

Sampling devices for extraction of miniature specimens from power plant components

Klevtsov, Ivan; Tallermo, Harri; Uus, Mati; Lausmaa, Toomas; Nešumajev, Dmitri; Dedov, Andrei Proceedings of the 5th International Conference of DAAAM Baltic : Industrial Engineering - Adding Innovation Capacity of Labour Force and Entrepreneur : 20-22 April 2006, Tallinn, Estonia 2006 / p. 53-58 : ill

Short-term tests on firing oil shale fuel applying low-temperature vortex technology

Pihu, Tõnu; Konist, Alar; Nešumajev, Dmitri; Loosaar, Jüri; Siirde, Andres; Parve, Teet; Molodtsov, Artjom Oil shale 2012 / p. 3-17 : ill https://artiklid.elnet.ee/record=b2479209*est

SO₂ emissions from oil shale oxyfuel combustion in a 60 kWth circulating fluidized bed

Baqain, Mais Hanna Suleiman; Nešumajev, Dmitri; Konist, Alar Energies 2024 / art. 4567 <https://doi.org/10.3390/en17184567>

Solid heat carrier oil shale retorting technology with integrated CFB technology

Nešumajev, Dmitri; Pihu, Tõnu; Siirde, Andres; Järvik, Oliver; Konist, Alar Oil shale 2019 / p. 99–113 : ill
<https://doi.org/10.3176/oil.2019.2S.02> http://www.kiri.ee/public/oilshale_pdf/2019/issue_2S/OS-2019-2S-99-113.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Synthesis strategies and hydrogen storage performance of porous carbon materials derived from bio-oil

Xu, Fanfan; Nešumajev, Dmitri; Konist, Alar Chemical engineering journal 2025 / art. 159381
<https://doi.org/10.1016/j.cej.2025.159381>

A technical analysis of oil shale firing power units retrofitting for carbon capture and storage (CCS)

Konist, Alar; Järvik, Oliver; Baird, Zachariah Steven; Nešumajev, Dmitri Proceedings of the 15th Greenhouse Gas Control Technologies Conference 15-18 March 2021 2021 / 7 p <https://doi.org/10.2139/ssrn.3819278>

Techno-economic assessment of CO₂ capture possibilities for oil shale power plants

Saia, Artjom; Nešumajev, Dmitri; Hazak, Aaro; Sander, Priit; Järvik, Oliver; Konist, Alar Renewable and sustainable energy reviews 2022 / art. 112938, 11 p. : ill <https://doi.org/10.1016/j.rser.2022.112938> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

TG-MS analysis and kinetic study of co-combustion of ca-rich oil shale with biomass in air and oxy-like conditions

Baqain, Mais Hanna Suleiman; Nešumajev, Dmitri; Konist, Alar Carbon capture science & technology 2024 / art. 100162
<https://doi.org/10.1016/j.ccst.2023.100162>

The impact of oil shale calorific value on CFB boiler thermal efficiency and environment = Põlevkivi kütteväärtuse mõju keevkihtkatla efektiivsusele ja keskkonnale

Plamus, Kristjan 2012 https://www.ester.ee/record=b2862227*est

The oil-shale 1,5 D combustion model for circulating fluidized bed (CBF) boilers

Nešumajev, Dmitri; Pihu, Tõnu; Konist, Alar; Siirde, Andres International IX Oil Shale Conference 2017 "Oil Shale Industry in Circular Economy" : 15th-16th November 2017, [Jõhvi], Ida-Viru County, Estonia : summary 2017 / p. 27
http://www.ester.ee/record=b4751282*est

The peculiarities by firing oil shale fuel with different heating value nn CFB boilers

Ots, Arvo; Parve, Teet; Pihu, Tõnu; Plamus, Kristjan; Prikk, Arvi; Nešumajev, Dmitri Научно-техническая конференция "Технологии эффективного и экологически чистого использования угля" : 29-30 октября 2009, Москва, Россия 2009 / с. 139-145

Thermal effects by firing oil shale fuel in CFB boilers

Nešumajev, Dmitri; Ots, Arvo; Parve, Teet; Pihu, Tõnu; Plamus, Kristjan; Prikk, Arvi Proceedings of the 20th International Conference on Fluidized Bed Combustion. 1 2009 / p. 277-281

Thermal efficiency of heating surface with riblets

Nešumajev, Dmitri; Tiikma, Toomas; Träss, Olev Proceedings of the 11th European Drag Reduction Working Meeting : Prague, September 15-17, 1999 1999 / p. 15-17

Utilization of pyrolytic wastewater in oil shale fired CFBC boiler

Konist, Alar; Järvik, Oliver; Pikkor, Heliis; Nešumajev, Dmitri; Pihu, Tõnu Journal of cleaner production 2019 / p. 487-493 : ill
<https://doi.org/10.1016/j.jclepro.2019.06.213> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Особенности сжигания прибалтийских горючих сланцев в котлах с ЦКС

Nešumajev, Dmitri; Ots, Arvo; Parve, Teet; Pihu, Tõnu; Plamus, Kristjan; Prikk, Arvi Электрические станции 2010 / 8, с. 23-26
: ил