

**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 / 5, p. 426-431

**Advances in heat transfer : proceedings of the 7th Baltic Heat Transfer Conference : Tallinn, Estonia, August 24-26, 2015**

2015 [http://www.ester.ee/record=b4494547\\*est](http://www.ester.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; Yörük, Can Rüstü; Nešumajev, Dmitri; Järvik, 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://artiklid.elnet.ee/record=b2680497*est)

**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>

**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; Järvik, 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](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; Järvik, 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.ester.ee/record=b4751282\\*est](http://www.ester.ee/record=b4751282*est)

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

Baird, Zachariah Steven; Nešumajev, Dmitri; Järvik, 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 <http://dx.doi.org/10.3176/oil.2016.2.05> [https://artiklid.elnet.ee/record=b2778470\\*est](https://artiklid.elnet.ee/record=b2778470*est)

**Dmitri Nešumajev, tehnika- ja arvutiteadused [Võrguväljaanne]**

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

#### **Efektivesed väikekatlad**

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

#### **Efektivesed väikekatlad**

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

#### **Efektivesed väikekatlad**

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

#### **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 NO<sub>x</sub>, SO<sub>2</sub>, 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](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

#### **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](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](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](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](http://www.ester.ee/record=b1072685*est) <http://dx.doi.org/10.3176/oil.2017.3.04> [https://artiklid.elnet.ee/record=b2824316\\*est](https://artiklid.elnet.ee/record=b2824316*est)

#### **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://artiklid.elnet.ee/record=b2631751*est)

**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

**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 CO<sub>2</sub> 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 <http://dx.doi.org/10.3176/oil.2016.3.04> [https://artiklid.elnet.ee/record=b2798381\\*est](https://artiklid.elnet.ee/record=b2798381*est)

**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<sub>x</sub> and N<sub>2</sub>O 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://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://artiklid.elnet.ee/record=b2604229*est)

**Oxyfuel conversion of Ca-rich fuel in a 60 kW<sub>th</sub> 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 <http://dx.doi.org/10.3176/oil.2017.3.02> [http://www.ester.ee/record=b1072685\\*est](http://www.ester.ee/record=b1072685*est) [https://artiklid.elnet.ee/record=b2824314\\*est](https://artiklid.elnet.ee/record=b2824314*est)

**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](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](#)

**Radiation heat transfer of turbulator inserts in gas heated channels**

**Nešumajev, Dmitri; Tiikma, Toomas** Heat transfer research 2008 / 5, p. 403-412 : ill

**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

### **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](https://artiklid.elnet.ee/record=b2479209*est)

### **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.kirj.ee/public/oilshale\\_pdf/2019/issue\\_2S/OS-2019-2S-99-113.pdf](http://www.kirj.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](#)

### **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](https://www.ester.ee/record=b2862227*est)

### **The natural convection heat transfer phenomena near the surface covered by riblets**

**Käär, Harri; Nešumajev, Dmitri; Tiikma, Toomas** 10th European Drag Reduction Colloquium, Berlin, March, 1997 : abstracts 1997 / [1] p

### **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](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 ЦК**

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