

AFM nanoshaving of covalently modified graphite for studying molecular self-assembly under lateral nanoconfinement
Steen, Roelof; Van Gorp, Hans; **Walke, Peter**; Mali, Kunal S.; De Feyter, Steven Journal of physical chemistry C 2021 / p. 21624-21634 <https://doi.org/10.1021/acs.jpcc.1c05700> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Aggregated demand-side energy flexibility : a comprehensive review on characterization, forecasting and market prospects

Plaum, Freddy; Ahmadihangar, Roya; Rosin, Argo; Kilter, Jako Energy reports 2022 / p. 9344-9362

<https://doi.org/10.1016/j.egy.2022.07.038> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Air change efficiency of room ventilation units

Mikola, Alo; Rehand, Juhan; Kurnitski, Jarek E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 01017, 8 p <https://doi.org/10.1051/e3sconf/201911101017> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Aminocatalysts are more environmentally friendly than hydrogen-bonding catalysts

Sihtmäe, Mariliis; Silm, Estelle; Kriis, Kadri; Kahru, Anne; Kanger, Tõnis ChemSusChem 2022 / art. e202201045, 5 p. : ill

<https://doi.org/10.1002/cssc.202201045> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analysis of causes of the end of service life of a spray polyurethane foam and polyurea roof

Kalamees, Targo; Ilomets, Simo; Põldaru, Mattias; Klõšeiko, Paul; Kallavus, Urve; Rosenberg, Margit; Öiger, Karl E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 15002, 6 p. : ill <https://doi.org/10.1051/e3sconf/202017215002> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Analyzing energy flexibility by demand response in a Finnish district heated apartment building

Ju, Yuchen; Jokisalo, Juha; Kosonen, Risto; Kauppi, Ville; Janßen, Philipp E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 09006, 7 p. : ill <https://doi.org/10.1051/e3sconf/202124609006> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Analytical approach for maximizing self-consumption of nearly zero energy buildings- case study : Baltic region

Ahmadihangar, Roya; Karami, Hossein; Husev, Oleksandr; Blinov, Andrei; Rosin, Argo; Jonaitis, Audrius; Sanjari, Mohammad Javad Energy 2022 / art. 121744, 11 p. : ill <https://doi.org/10.1016/j.energy.2021.121744> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Annual performance analysis of heat emission in radiator and underfloor heating systems in the European reference room

Võsa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 04009, 8 p <https://doi.org/10.1051/e3sconf/201911104009> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Aqueous mineral carbonation of oil shale mine waste (limestone) : a feasibility study to develop a CO2 capture sorbent

Puthiya Veetil, Sanoop Kumar; Rebane, Kaarel; Yörük, Can Rüstü; Lopp, Margus; Trikkell, Andres; Hitch, Michael William Energy 2021 / art. 119895 <https://doi.org/10.1016/j.energy.2021.119895> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Assessment of downward draught in high-glazing facades in cold climates – experimental and CFD study into draught control with a 21-type radiator

Võsa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 02002, 8 p. : ill <https://doi.org/10.1051/e3sconf/202124602002> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Building performance indicators and IEQ assessment procedure for the next generation of EPC-s

Võsa, Karl-Villem; Ferrantelli, Andrea; Tzanev, Dragomir; Simeonov, Kamen; Carnero, Pablo; Espigares, Carlos; Navarro Escudero, Miriam; Quiles, Pedro Vicente; Andrieu, Thibault; Battezzati, Florian; Kurnitski, Jarek E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 13003, 9 p <https://doi.org/10.1051/e3sconf/202124613003> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Capillary condensation experiment for inverse modelling of porous building materials

Hirsch, Hauke; Heyn, Rüdiger; Klõšeiko, Paul E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 17003, 7 p. : ill <https://doi.org/10.1051/e3sconf/202017217003> [Conference proceedings at Scopus](#) [Article at Scopus](#) [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](#)

A comparative analysis of NZEB energy performance requirements for residential buildings in Denmark, Estonia and Finland

Simson, Raimo; Thomsen, Kirsten Engelund; Wittchen, Kim Bjarne; Kurnitski, Jarek E3S Web Conference: Cold Climate HVAC

and Energy 2021 2021 / art. 14001, 12 p. : ill <https://doi.org/10.1051/e3sconf/202124614001> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Comparative study of using periodic daily and long-term weather data for cooling system sizing and impact of thermal mass

Seyed Salehi, Seyed Shahabaldin; Kurnitski, Jarek; Thalfeldt, Martin E3S Web Conference: BuildSim Nordic 2022 2022 / art. 06002 <https://doi.org/10.1051/e3sconf/202236206002> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Comparison of deep learning models for multivariate prediction of time series wind power generation and temperature

Mishra, Sambeet; Bordin, Chiara; Taharaguchi, Kota; Palu, Ivo Energy reports 2020 / p. 273–286 <https://doi.org/10.1016/j.egy.2019.11.009> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Congestion control strategies for increased renewable penetration of photovoltaic in LV distribution networks

Shabbir, Noman; Kütt, Lauri; Astapov, Victor; Husev, Oleksandr; Ahmadiyahangar, Roya; Wen, Fushuan; Kull, Karl Energy reports 2022 / p. 217–223 <https://doi.org/10.1016/j.egy.2022.10.184> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Continuous automated ventilation heat recovery efficiency performance assessment using building monitoring system

Kull, Tuule Mall; Mikola, Alo; Tukia, Andres; Köse, Ahmet; Petlenkov, Eduard; Thalfeldt, Martin E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 10006, 10 p. : ill <https://doi.org/10.1051/e3sconf/202124610006> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Contributions to ventilation system demand response: a case study of an educational building

Maask, Vahur; Mikola, Alo; Korõtko, Tarmo; Rosin, Argo; Thalfeldt, Martin E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 11001, 6 p <https://doi.org/10.1051/e3sconf/202124611001> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Cost reduction of the new NZEB Wooden building – case study of the kindergarten in Estonia

Arumägi, Endrik; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 13002, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017213002> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Danish, Estonian and Finnish NZEB requirements comparison with European Commission recommendations for office buildings in Nordic and Oceanic climates

Simson, Raimo; Arumägi, Endrik; Thomsen, Kirsten Engelund; Wittchen, Kim Bjarne; Kurnitski, Jarek E3S Web Conferences : The 16th ROOMVENT Conference (ROOMVENT 2022) 2022 / art. 01017 <https://doi.org/10.1051/e3sconf/202235601017> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Design criteria for outdoor air intakes and exhaust air outlets located on an external wall

Palmiste, Ülar; Kurnitski, Jarek; Voll, Hendrik E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 9008, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017209008> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Development of prefabricated insulation elements for buildings with aerated autoclaved concrete walls

Pihelo, Peep; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 18001, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017218001> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Direct aqueous carbonation on olivine at a CO₂ partial pressure of 6.5 MPa

Li, Jiajie; Jacobs, Anthony D.; Hitch, Michael William Energy 2019 / p. 902–910 : ill <https://doi.org/10.1016/j.energy.2019.02.125> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Driving decarbonisation of the EU building stock by enhancing a consumer centred and locally based circular renovation process

Tisov, Ana; Kuusk, Kalle; Navarro Escudero, Miriam; Pihelo, Peep; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 <https://doi.org/10.1051/e3sconf/202017218006> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Economic features of the use of electric vehicles in delivery services in Estonia

Prokopenko, Olha; Jarvis, Marina; Prause, Gunnar Klaus; Kara, Inna; Kyrchenko, Hanna; Kochubei, Oleksandr; Prokopenko, Maryna International Journal of Energy Economics and Policy 2022 / p. 340–349 <https://doi.org/10.32479/ijeep.13617> [Journal metrics at Scopus](#) [Article at Scopus](#)

Efficient use of heat from CHP distributed by district heating system in district cooling networks

Pieper, Henrik; Kirs, Tanel; Krupenski, Igor; Ledvanov, Aleksandr; Lepiksaar, Kertu; Volkova, Anna Energy reports 2021 / p. 47–54 <https://doi.org/10.1016/j.egy.2021.09.041> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Energy cascade connection of a low-temperature district heating network to the return line of a high-temperature district heating network

Volkova, Anna; Krupenski, Igor; Ledvanov, Aleksandr; Hlebnikov, Aleksandr; Lepiksaar, Kertu; Latõšov, Eduard; Mašatin, Vladislav Energy 2020 / art. 117304, 15 p. : ill <https://doi.org/10.1016/j.energy.2020.117304> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Energy saving potential with smart thermostats in low-energy homes in cold climate

Kull, Tuule Mall; Penu, Karl-Rihard; Thalfeldt, Martin; Kurnitski, Jarek E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 09009, 7 p. : ill <https://doi.org/10.1051/e3sconf/202017209009> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Estimation of energy-saving potential and indoor thermal comfort by the central control of the heating curve in old apartment buildings

Hajian, Hatef; Ahmed, Kaiser; Kurnitski, Jarek E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 09002, 10 p. : ill <https://doi.org/10.1051/e3sconf/202124609002> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Evidence based residential ventilation: sizing procedure and system solutions addressed by REHVA Residential Ventilation Task Force

Kurnitski, Jarek; Thalfeldt, Martin; Weele, Harry van; Toksoy, Macit; Carlsson, Thomas; Vladykova Bednarova, Petra; Seppänen, Olli E3S Web of Conferences : CLIMA 2019 Congress, May 26-29, 2019 2019 / art. 01016, 7 p <https://doi.org/10.1051/e3sconf/201911101016> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Experimental study of radiator, underfloor, ceiling and air heater systems heat emission performance in TUT nZEB test facility

Võsa, Karl-Villem; Ferrantelli, Andrea; Kurnitski, Jarek E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 04005, 7 p <https://doi.org/10.1051/e3sconf/201911104005> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Experimental testing of exterior wall mounted mechanical ventilation exhaust air outlet devices

Palmiste, Ülar; Meier, Tauno; Kurnitski, Jarek; Voll, Hendrik E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 02001, 8 p. : ill <https://doi.org/10.1051/e3sconf/202124602001> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Explainable Artificial Intelligence (XAI) techniques for energy and power systems: Review, challenges and opportunities

Machlev, Ram; Heistrene, L.; Perl, M.; Levy, K. Y.; Belikov, Juri; Mannor, S.; Levron, Yoash Energy and AI 2022 / art. 100169, 13 p. : ill <https://doi.org/10.1016/j.egyai.2022.100169> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Factors affecting the deep renovation of a single-family building – a case study

Bergmann, Triinu; Ruus, Aime; Kalbe, Kristo; Kiviste, Mihkel; Tintera, Jiri E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 05004, 8 p. : ill <https://doi.org/10.1051/e3sconf/202124605004> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Features extraction of wind ramp events from a virtual wind park

Mishra, Sambeet; Ören, Esin; Bordin, Chiara; Wen, Fushuan; Palu, Ivo Energy reports 2020 / p. 237–249 <https://doi.org/10.1016/j.egy.2020.08.047> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

5th generation district heating and cooling (5GDHC) implementation potential in urban areas with existing district heating systems

Volkova, Anna; Pakere, Ieva; Murauskaite, Lina; Huang, Pei; Lepiksaar, Kertu; Zhang, Xinxing Energy reports 2022 / p. 10037-10047 <https://doi.org/10.1016/j.egy.2022.07.162> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Frequency stability of the Israeli power grid with high penetration of renewable sources and energy storage systems

Ben Yosef, Gefen; Navon, Aviad; Poliak, Olga; Etzion, Naomi; Gal, Nurit; Belikov, Juri; Levron, Yoash Energy reports 2021 / p. 6148–6161 : ill <https://doi.org/10.1016/j.egy.2021.09.057> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

GIS-based optimisation for district heating network planning

Tšitšerin, Stanislav; Volkova, Anna; Latõšov, Eduard Energy procedia 2018 / p. 635-641 : ill <https://doi.org/10.1016/j.egypro.2018.08.228> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Gray box time variant clogging behaviour and pressure drop prediction of the air filter in the HVAC system

Alimohammadi, Hossein; Vassiljeva, Kristina; Petlenkov, Eduard; Thalfeldt, Martin; Mikola, Alo; Kull, Tuule Mall; Köse, Ahmet E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 10002 <https://doi.org/10.1051/e3sconf/202124610002> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Heat recovery ventilation system heating energy weather normalization – calculation method and case study

Kuivjõgi, Helena; Laaneste, Janar; Thalfeldt, Martin; Kurnitski, Jarek E3S Web Conference: BuildSim Nordic 2022 2022 / art.

Highly insulated crawl spaces with controlled minimal ventilation – proof of concept by field measurements

Airaksinen, Miimu; Olsson, Lars; **Kurnitski, Jarek**; Hvidberg, Staffan E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 07004, 5 p. : ill <https://doi.org/10.1051/e3sconf/202017207004> Conference proceedings at Scopus Article at Scopus Article at WOS

High-strength fuel pellets made of flour milling and coal slack wastes

Tabakaev, Roman; Kahn, Victor; Dubinina, Yury; **Preis, Sergei** Energy 2022 / art. 123071 <https://doi.org/10.1016/j.energy.2021.123071> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

How to compare energy performance requirements of Japanese and European office buildings

Ahmed, Kaiser; Yoon, Gyuyoung; Ukai, Makiko; **Kurnitski, Jarek** E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 03038, 8 p <https://doi.org/10.1051/e3sconf/201911103038> Conference proceedings at Scopus Article at Scopus

Hygrothermal performance of paper plaster: influence of different types of paper and production methods on moisture buffering

Soolepp, Mihkel; Ruus, Aime; Nutt, Nele; Raamets, Jane; Kubjas, Ardo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 14010, 6 p <https://doi.org/10.1051/e3sconf/202017214010> Conference proceedings at Scopus Article at Scopus Article at WOS

Identification and improvement of critical joints in CLT construction without weather protection

Kalbe, Kristo; Kukk, Villu; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 10002, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017210002> Conference proceedings at Scopus Article at Scopus Article at WOS

Identifying the role of co-aggregation of Alzheimer's amyloid- β with amorphous protein aggregates of non-amyloid proteins

Wu, Jinming; Österlund, Nicklas; Wang, Hongzhi; Sternke-Hoffmann, R.; **Pupart, Hegne**; Ilag, Leopold L.; Gräslund, Astrid; Luo, Jinghui Cell Reports Physical Science 2022 / art. 101028 <https://doi.org/10.1016/j.xcrp.2022.101028> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

The impact of infiltration on heating systems dimensioning in Estonian climate

Simson, Raimo; Rebane, Taaniel; Kiil, Martin; Thalfeldt, Martin; Kurnitski, Jarek E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 05004, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017205004> Conference proceedings at Scopus Article at Scopus Article at WOS

Impact of internal heat gain profiles on the design cooling capacity of landscaped offices

Seyed Salehi, Seyed Shahabaldin; Ferrantelli, Andrea; Aljas, Hans Kristjan; Kurnitski, Jarek; Thalfeldt, Martin E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 07003, 7 p. : ill <https://doi.org/10.1051/e3sconf/202124607003> Conference Proceedings at Scopus Article at Scopus Article at WOS

Impact of office tenants' electricity use on the cost-optimal solutions in a cold climate

Kuivjõgi, Helena; Laas, Liina; Ferrantelli, Andrea; Thalfeldt, Martin E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 05001, 8 p. : ill <https://doi.org/10.1051/e3sconf/202124605001> Conference Proceedings at Scopus Article at Scopus Article at WOS

Indoor climate and energy performance in nearly zero energy day care centers and school buildings

Kaiser, Ahmed; **Kuusk, Kalle**; Heininen, Henrik; **Arumägi, Endrik; Kalamees, Targo**; Hasu, Tero; Lolli, Nicola; **Kurnitski, Jarek** E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 02003, 9 p. : ill <https://doi.org/10.1051/e3sconf/201911102003> Conference proceedings at Scopus Article at Scopus

Indoor temperature conditions and energy demand of a Finnish detached house in a changing climate

Farahani, Azin Velashjerdi; **Jokisalo, Juha**; Korhonen, Natalia; **Kosonen, Risto** E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 15001, 7 p. : ill <https://doi.org/10.1051/e3sconf/202124615001> Conference proceedings at Scopus Article at Scopus Article at WOS

The influence of O₂ and CO₂ on the possible corrosion on steel transmission lines of natural gas

Latšov, Eduard; Maaten, Birgit; Siirde, Andres; Konist, Alar Energy procedia 2018 / p. 63-70 : ill <https://doi.org/10.1016/j.egypro.2018.07.034> Journal metrics at Scopus Article at Scopus Article at WOS

Kouvola Housing fair NZEB houses energy, cost and carbon analyses

Ahmed, Kaiser; Hajian, Hatef; Hasu, Tero; **Kurnitski, Jarek** E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 13001, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017213001> Conference proceedings at Scopus Article at Scopus Article at WOS

Laboratory tests and modelling of mineral wool insulated steel sandwich panels

Laukkarinen, Anssi; Vinha, Juha; **Kalbe, Kristo; Kalamees, Targo** E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 17006, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017217006> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

Low-temperature waste heat enabling abandoning coal in Espoo district heating system

Hiltunen, Pauli; **Syri, Sanna** Energy 2021 / art. 120916, 11 p. : ill <https://doi.org/10.1016/j.energy.2021.120916> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Maritime cyber-insurance: the Norwegian case

Franke, Ulrik; **Friberg, Even Langfeldt; Bahşi, Hayret** International Journal of Critical Infrastructures 2022 / p. 267-286 <https://doi.org/10.1504/ijcis.2022.125816> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Measured and simulated energy performance of OLK NZEB with heat pump and energy piles in Hämeenlinna

Fadejev, Jevgeni; **Simson, Raimo; Kesti, Jyrki; Kurnitski, Jarek** E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 16012, 11 p. : ill <https://doi.org/10.1051/e3sconf/202017216012> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Measured performance of exhaust air heat pumps in Finnish apartment buildings

Pylsy, Petri; **Kurnitski, Jarek** E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 06001, 7 p <https://doi.org/10.1051/e3sconf/202124606001> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Mechanochemical nucleophilic substitution of alcohols via isouronium intermediates

Dalidovich, Tatsiana; **Nallaparaju, Jagadeesh Varma; Shalima, Tatsiana; Aav, Riina; Kananovich, Dzmitry** ChemSusChem 2022 / art. e202102286 <https://doi.org/10.1002/cssc.202102286> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Method of linear approximation of COP for heat pumps and chillers based on thermodynamic modelling and off-design operation

Pieper, Henrik; **Krupenski, Igor; Markussen, Wiebke Brix; Ommen, Torben; Siirde, Andres; Volkova, Anna** Energy 2021 / art. 120743 : ill <https://doi.org/10.1016/j.energy.2021.120743> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A method to develop energy activated ETICS

Ilomets, Simo; Heim, Dariusz; Chodak, Ivan; Czarny, Dariusz; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 21006, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017221006> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Methodology for evaluating the transition process dynamics towards 4th generation district heating systems

Volkova, Anna; Mašatin, Vladislav; Siirde, Andres Energy 2018 / p. 253-261 : ill <https://doi.org/10.1016/j.energy.2018.02.123> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mitigation of pulsed power load effect on power system using FLC-SMES

Salama, Hossam S.; **Bakeer, Abualkasim Ahmed Ali; Vokony, Istvan; Chub, Andrii** Energy reports 2022 / p. 463-471 <https://doi.org/10.1016/j.egyr.2021.11.054> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Modelling of wax actuators in underfloor heating manifolds

Kull, Tuule Mall; Thalfeldt, Martin; Kurnitski, Jarek E3S Web Conference : Cold Climate HVAC and Energy 2021 2021 / art. 11009, 8 p. : ill <https://doi.org/10.1051/e3sconf/202124611009> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Moisture dry-out from steel faced insulated sandwich panels

Kalbe, Kristo; Piikov, Hubert; Kurnitski, Jarek; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 17007, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017217007> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Nearly zero energy renovation concepts for apartment buildings

Kuusk, Kalle; Naumann, Jens; Gritzki, Anina; Felsmann, Clemens; De Carli, Michele; Kurnitski, Jarek E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 18009, <https://doi.org/10.1051/e3sconf/202017218009> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

A new method to estimate point thermal transmittance based on combined two-dimensional heat flow calculation

Hallik, Jaanus; Kalamees, Targo E3S Web Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) 2020 / art. 08005, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017208005> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

NZEB and market-based renovation case study of an existing office building

Kuivjõgi, Helena; Kurnitski, Jarek; Uutar, Aivar; Thalfeldt, Martin E3S Web Conference: Cold Climate HVAC and Energy 2021

2021 / art. 05002, 7 p. : ill <https://doi.org/10.1051/e3sconf/202124605002> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Numerical modeling and validation of a large-scale borehole thermal energy storage system in Finland

Xue, Tianchen; **Jokisalo, Juha**; **Kosonen, Risto**; Vuolle, Mika; Marongiu, Federica; Vallin, Sami; Leppäharju, Nina; Arola, Teppo
E3S Web of Conferences : BuildSim Nordic 2022 2022 / art. 06003 <https://doi.org/10.1051/e3sconf/202236206003> [Conference proceeding at Scopus](#) [Article at Scopus](#)

Oil prices, unemployment and the financial crisis in oil-importing countries : The case of Spain

Ordonez, Javier; Monfort, Mercedes; Cuestas, Juan Carlos Energy 2019 / p. 625-634 <https://doi.org/10.1016/j.energy.2019.05.209>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimal PI control parameters for accurate underfloor heating temperature control

Kull, Tuule Mall; **Thalfeldt, Martin**; **Kurnitski, Jarek** E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 01081, 8 p. : ill <https://doi.org/10.1051/e3sconf/201911101081> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Optimization of renewable energy for buildings with energy storages and 15-minute power balance

Savolainen, Rebecka; Lahdelma, Risto Energy 2022 / art. 123046 <https://doi.org/10.1016/j.energy.2021.123046> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Parameter estimation of PEM fuel cells employing the hybrid grey wolf optimization method

Miao, Di; Chen, Wei; Zhao, Wei; **Demsas, Tekle** Energy 2020 / Art. 116616 <https://doi.org/10.1016/j.energy.2019.116616> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Parametric energy simulations of a Nordic detached house heated by a wood stove

Thalfeldt, Martin; Skare, Anders; Georges, Laurent; Skreiberg, Øyvind E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 25007, 7 p. : ill <https://doi.org/10.1051/e3sconf/202017225007> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

PCSP's diagonal tie connectors thermal bridges impact on energy performance and operational cost : case study of a high-rise residential building in Estonia

Kiil, Martin; **Käärid, Martin-Sven**; **Klõšeiko, Paul**; **Võsa, Karl-Villem**; **Simson, Raimo**; **Sarevet, Henri**; **Thalfeldt, Martin**; **Kurnitski, Jarek** E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 80060, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017208006> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Phase transformations in porous materials studied by in situ solid-state NMR spectroscopy and in situ X-ray diffraction

Paula, Carolin; Wissner, Dorothea; Rangus, Mojca; **Vanatalu, Kalju**; **Oss, Andres**; **Org, Mai-Liis**; **Samoson, Ago**; Hartmann, M. The journal of physical chemistry C 2020 / p. 19136-19145 : ill <https://doi.org/10.1021/acs.jpcc.0c05921> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Policy incentives for flexible district heating in the Baltic countries

Møller Sneum, Daniel; Sandberg, Eli; **Koduvere, Hardi**; Olsen, Ole Jess; Blumberga, Dagnija Utilities policy 2018 / p. 61-72 : ill <https://doi.org/10.1016/j.jup.2018.02.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Predictive control based on ranking multi-objective optimization approaches for a quasi-Z source inverter

Bakeer, Abualkasim Ahmed Ali; Magdy, Gaber; **Chub, Andrii**; **Vinnikov, Dmitri** CSEE journal of power and energy systems 2021 / p. 1152-1160 : ill <https://doi.org/10.17775/CSEEJPES.2020.01310> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Preliminary assessment of preconditions to deliver carbon neutrality in apartment buildings by 2050

Lihtmaa, Lauri; **Kalamees, Targo** E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 18004, 6 p. : ill <https://doi.org/10.1051/e3sconf/202017218004> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Primary energy balance driven integrated energy design process of positive energy building

Tamm, Meril; Ortiz, Joana; Pascual, Jordi; **Kurnitski, Jarek**; **Thalfeldt, Martin**; Salom, Jaume E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 13001, 8 p. : ill <https://doi.org/10.1051/e3sconf/202124613001> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Promoting efficient district heating in Estonia

Latõšov, Eduard; Umbleja, Siim; **Volkova, Anna** Utilities policy 2022 / art. 101332, 9. : ill <https://doi.org/10.1016/j.jup.2021.101332> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Realisation of energy performance targets of an old apartment building renovated to nZEB

Hamburg, Anti; Kuusk, Kalle; Mikola, Alo; Kalamees, Targo Energy 2020 / art. 116874, 10 p. : ill

<https://doi.org/10.1016/j.energy.2019.116874> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Redefining cost-optimal nZEB levels for new residential buildings

Simson, Raimo; Arumägi, Endrik; Kuusk, Kalle; Kurnitski, Jarek E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 03035, 7 p. : ill <https://doi.org/10.1051/e3sconf/201911103035> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Reduced recombination through the CZTS/CdS interface engineering in monograin layer solar cells

Kauk-Kuusik, Marit; Timmo, Kristi; Muska, Katri; Pilvet, Maris; Krustok, Jüri; Danilson, Mati; Mikli, Valdek; Josepson, Raavo; Grossberg, Maarja JPhys Energy 2022 / art. 024007 <https://doi.org/10.1088/2515-7655/ac618d> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reliability framework for power network assessment

Mishra, Sambeet; Bordin, Chiara; Fornes, Jordi Mateo; Palu, Ivo 2018 International Conference on Renewable Energy and Environment Engineering (REEE 2018) 2019 / art. 02005, 7 p. : ill <https://doi.org/10.1051/e3sconf/20198002005> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Renovation of apartment buildings with prefabricated modular panels

Kuusk, Kalle; Pihelo, Peep; Kalamees, Targo E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 03023, 6 p <https://doi.org/10.1051/e3sconf/201911103023> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Residential buildings with heat pumps peak power reduction with high performance insulation

Sarevet, Henri; Fadejev, Jevgeni; Thalfeldt, Martin; Kurnitski, Jarek E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 12008, 5 p. : ill <https://doi.org/10.1051/e3sconf/202017212008> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Respiratory infection risk based ventilation and room conditioning design method with year-round thermal comfort control in modern office buildings

Kiil, Martin; Simson, Raimo; Võsa, Karl-Villem; Mikola, Alo; Thalfeldt, Martin; Kurnitski, Jarek E3S Web Conference: The 16th ROOMVENT Conference 2022 / art. 05008 <https://doi.org/10.1051/e3sconf/202235605008> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

A review of low-temperature sub-networks in existing district heating networks : examples, conditions, replicability

Puschnigg, Stefan; Jauschnik, Gabriela; Moser, Simon; **Volkova, Anna**; Linhart, Matthias Energy Reports 2021 / p. 18-26 : ill <https://doi.org/10.1016/j.egy.2021.09.044> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Seasonal storage of residential exhaust air and sewage waste heat

Hirvonen, Janne; **Jokisalo, Juha; Kosonen, Risto** E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 06009, 7 p <https://doi.org/10.1051/e3sconf/202124606009> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

A simplified power sizing method for the correct building integration of wood stoves

Thalfeldt, Martin; Skare, Anders; Georges, Laurent; Skreiberg, Øyvind E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 02066, 7 p. : ill <https://doi.org/10.1051/e3sconf/201911102066> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Simulation of demand response on buildings and district heating production

Ju, Yuchen; Lindholm, Joakim; Verbeck, Moritz; **Jokisalo, Juha; Kosonen, Risto**; Janáček, Enc, Philipp; Li, Yantong; Schäfers, Hans; Nord, Natasa E3S Web of Conferences : BuildSim Nordic 2022 2022 / art. 13002 <https://doi.org/10.1051/e3sconf/202236213002> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Simulation of modern passive stack ventilation in a retrofitted Nordic apartment building

Kravchenko, Iliia; **Kosonen, Risto; Jokisalo, Juha**; Kilpeläinen, Simo E3S Web of Conferences : BuildSim Nordic 2022 2022 / art. 14003 <https://doi.org/10.1051/e3sconf/202236214003> [Conference proceeding at Scopus](#) [Article at Scopus](#)

Small low-temperature district heating network development prospects

Volkova, Anna; Krupenski, Igor; Pieper, Henrik; Ledvanov, Aleksandr; **Latõšov, Eduard; Siirde, Andres** Energy 2019 / p. 714-722 <https://doi.org/10.1016/j.energy.2019.04.083> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Spatially resolved opto-electrical performance investigations of Cu₂ZnSnS₃.2Se_{0.8} photovoltaic devices

Neubauer, Christian; Samiepour, Ali; Oueslati, Souhaib; Ernits, Kaia; Meissner, Dieter Energy Science & Engineering 2018 / p. 563-569 : ill <https://doi.org/10.1002/ese3.232> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Spent Li-Ion battery graphite turned into valuable and active catalyst for electrochemical oxygen reduction

Liivand, Kerli; Kazemi, Maryam; **Walke, Peter; Mikli, Valdek**; Macdonald, Digby D.; Kruusenberg, Ivar ChemSusChem 2021 / p. 1103-1111 <https://doi.org/10.1002/cssc.202002742> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Stability, reliability, upscaling and possible technological applications of kesterite solar cells

Larramona, G.; Chone, C.; **Meissner, Dieter**; Ernits, Kaia Journal of Physics : Energy 2020 / art. 024009, 14 p <https://doi.org/10.1088/2515-7655/ab7cee> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Suitability of devulcanized crumb rubber for oil spills remediation

Lapkovskis, Vjaceslavs; Mironovs, Viktors; **Goljandin, Dmitri** Energy procedia 2018 / p. 351-357 : ill <https://doi.org/10.1016/j.egypro.2018.07.103> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Technical improvement potential of large district heating network : application to the case of Tallinn, Estonia

Latõšov, Eduard; Volkova, Anna; Hlebnikov, Aleksandr; **Siirde, Andres** Energy procedia 2018 / p. 337-344 : ill <https://doi.org/10.1016/j.egypro.2018.08.197> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Techno-economic analysis and energy forecasting study of domestic and commercial photovoltaic system installations in Estonia

Shabbir, Noman; Kütt, Lauri; Raja, Hadi Ashraf; Jawad, Muhammad; Allik, Alo; **Husev, Oleksandr** Energy 2022 / art. 124156 <https://doi.org/10.1016/j.energy.2022.124156> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tenant-based measured electricity use in 4 large office buildings in Tallinn, Estonia

Ferrantelli, Andrea; Aljas, Hans Kristjan; Maask, Vahur; Thalfeldt, Martin E3S Web Conference: Cold Climate HVAC and Energy 2021 2021 / art. 04001, 8 p. : ill <https://doi.org/10.1051/e3sconf/202124604001> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

The influence of heat loss from pipes in an unheated basement on the heating energy consumption of an entire typical apartment building

Hamburg, Anti; Kalamees, Targo E3S Web Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) ; 172 2020 / art. 12005 <https://doi.org/10.1051/e3sconf/202017212005> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

The integration of selected technology to energy activated ETICS - theoretical approach

Heim, Dariusz; Chodak, Ivan; **Ilomets, Simo**; Knera, Dominika; Wieprzkowicz, Anna; **Kalamees, Targo** E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 21004, 7 p. : ill <https://doi.org/10.1051/e3sconf/202017221004> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Thermal bridge effect of vertical diagonal tie connectors in precast concrete sandwich panels : an experimental and computational study

Klõšeiko, Paul; Piir, Reimo; Jeltsov, Marti; **Kalamees, Targo** E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 08001, 7 p. : ill <https://doi.org/10.1051/e3sconf/202017208001> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Thermal comfort and draught assessment in a modern open office building in Tallinn

Kiil, Martin; Mikola, Alo; Thalfeldt, Martin; Kurnitski, Jarek E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 02013, 7 p. : ill <https://doi.org/10.1051/e3sconf/201911102013> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Transition towards university campus carbon neutrality by connecting to city district heating network

Hiltunen, Pauli; **Volkova, Anna; Latõšov, Eduard; Lepiksaar, Kertu**; Syri, Sanna Energy reports 2022 / p. 9493-9505 <https://doi.org/10.1016/j.egy.2022.07.055> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Uses of the digital twins concept for energy services, intelligent recommendation systems, and demand side management: A review

Onile, Abiodun Emmanuel; Machlev, Ram; **Petlenkov, Eduard**; Levron, Yoash; **Belikov, Juri** Energy reports 2021 / p. 997-1015 <https://doi.org/10.1016/j.egy.2021.01.090> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)