

### **A strange case of two fishes: enigmatic disappearance of bone tissue or an originally unossified osteostracan**

Tinn, Oive; Lang, Liisa; **Märss, Tiit**; Kirsimäe, Kalle The Fossil Week : abstract book : 5th International Palaeontological Congress: IPC5 2018 : Paris, 9th-13th July, 2018 / p. 858 [https://ipc5.sciencesconf.org/data/IPC5\\_Abstract\\_Book.pdf](https://ipc5.sciencesconf.org/data/IPC5_Abstract_Book.pdf)

### **Authigenesis of biomorphic apatite particles from Benguela upwelling zone sediments off Namibia: The role of organic matter in sedimentary apatite nucleation and growth**

Mänd, Kaarel; Kirsimäe, Kalle; **Lepland, Aivo**; Lumiste, Kaarel Geobiology 2018 / p. 640-658 : ill <https://doi.org/10.1111/gbi.12309>  
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Basics of new utilization processes for oil shale combustion wastes**

**Kuusik, Rein**, **keemik**; **Uibu, Mai**; **Raado, Lembi-Merike**; **Süld, Tiia-Maaja**; **Väizene, Vivika**; Irha, Natalja; Kirsimäe, Kalle; Loide, Valli; Meriste, Tõnis International Symposium "Oil shale 100 years" : Estonia, Sept. 20-23, 2016 : [abstracts] 2016 / p. 37

### **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](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](#)

### **Carbon isotope systematics of the Cambrian-Vendian aquifer system in the northern Baltic Basin : implications to the age and evolution of groundwater**

**Raidla, Valle**; Kirsimäe, Kalle; **Vaikmäe, Rein**; **Kaup, Enn**; **Martma, Tõnu** Applied geochemistry 2012 / p. 2042-2052 : ill  
<https://doi.org/10.1016/j.apgeochem.2012.06.005>

### **Challenges in geological research in Estonia**

Meidla, Tõnu; Kalm, Volli; Kirsimäe, Kalle; **Vaikmäe, Rein** Research in Estonia : present and future 2011 / p. 368-384

### **Changes in phosphorite composition and properties during mechanical activation**

**Tõnsuaadu, Kaia**; **Kaljuvee, Tiit**; Petkova, Vilma; **Traksmäa, Rainer**; Kirsimäe, Kalle Researchers' Network on Phosphates : The Third International Conference on the Valorization of Phosphates and Phosphorus Compounds : COVAPHOS III : Marrakech, Morocco, March 18th-20th, 2009 : proceedings 2009 / p. 15-21

### **Characterization of oil shale ashes formed at industrial-scale CFBC boilers**

**Kuusik, Rein**, **keemik**; **Uibu, Mai**; Kirsimäe, Kalle Oil shale 2005 / 4S, p. 407-419 : ill

### **Chloritization of Upper Ordovician Pirgu bentonites - source material or diagenetic environment?**

Kirsimäe, Kalle; Hints, Rutt; Kallaste, Toivo; **Kiipli, Enli**; **Kiipli, Tarmo** WOGOGOB-2004 : 8th Meeting of the Working Group on the Ordovician Geology of Baltoscandia : May 13-18, 2004, Tallinn and Tartu, Estonia : conference materials : abstracts and field guidebook 2004 / p. 57-58 [https://artiklid.elnet.ee/record=b2610235\\*est](https://artiklid.elnet.ee/record=b2610235*est)

### **ClimMIT - Climate change mitigation with CCS and CCU technologies**

**Uibu, Mai**; **Siirde, Andres**; **Järvik, Oliver**; **Trikkel, Andres**; **Yörük, Can Rüstü**; Nurk, Gunnar; Kirsimäe, Kalle; **Hazak, Aaro**; **Konist, Alar** Proceedings of the 15th Greenhouse Gas Control Technologies Conference 15-18 March 2021 2021 / 9 p  
<https://ssrn.com/abstract=3812288> <https://doi.org/10.2139/ssrn.3812288>

### **Composition of oil shale ashes from pulverized firing and circulating fluidized-bed boiler in Narva Thermal Power Plants**

Bitjukova, Liidia; **Mõtsep, Riho**; Kirsimäe, Kalle Oil shale 2010 / 4, p. 339-353 : ill

### **A demineralized osteostracan fossil from the Silurian Kalana Lagerstätte of Estonia : revealing its internal anatomy and uncovering a unique type of fossilization**

Tinn, Oive; Lang, Liisa; **Märss, Tiit**; Vahur, Signe; Kirsimäe, Kalle Lethaia 2022 / 13 p. : ill <https://doi.org/10.1111/let.12452> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Design of High Volume CFBC Fly Ash Based Calcium Sulphoaluminate Type Binder in Mixtures with Ordinary Portland Cement**

Paaver, Peeter; **Järvik, Oliver**; Kirsimäe, Kalle Materials 2021 / art. 5798 <https://doi.org/10.3390/ma14195798> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Eesti fosforiidi säästlik väärindamine : [RITA MAARE projekti aruanne]**

2020 <https://fond.egt.ee/fond/egf/9405>

### **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](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](#)

### **High-CO<sub>2</sub>, acidic and oxygen-starved weathering at the Fennoscandian Shield at the Archean-Proterozoic transition**

Soomer, Sigrid; Somelar, Peeter; Mänd, Kaarel; Driese, Steven G.; **Lepland, Aivo**; Kirsimäe, Kalle Precambrian research 2019 / p. 68-80 : ill <https://doi.org/10.1016/j.precamres.2019.03.001>

### **Impact of mechanical activation on physical and chemical properties of phosphorite concentrates**

**Tõnsuaadu, Kaia**; **Kaljuvee, Tiit**; Petkova, Vilma; **Traksmaa, Rainer**; **Bender, Villem**; Kirsimäe, Kalle International journal of mineral processing 2011 / p. 104-109

### **Influence of oxy-fuel combustion of Ca-rich oil shale fuel on carbonate stability and ash composition**

**Konist, Alar**; **Valtsev, Aleksandr**; **Loo, Lauri**; **Pihu, Tõnu**; Liira, Martin; Kirsimäe, Kalle Fuel 2015 / p. 671-677 : ill <http://dx.doi.org/10.1016/j.fuel.2014.09.050>

### **Influence of the end-temperature on the oil shale fast pyrolysis process and its products**

**Maaten, Birgit**; **Siirde, Andres**; Vahur, Signe; Kirsimäe, Kalle Journal of thermal analysis and calorimetry 2022 / p. 1647-1655 : ill <https://doi.org/10.1007/s10973-022-11567-2>

### **Iron isotopes reveal a benthic iron shuttle in the palaeoproterozoic zaonega formation : basinal restriction, euxinia, and the effect on global palaeoredox proxies**

Mänd, Kaarel; Lalonde, Stefan V.; Paiste, Kärt; Thoby, Marie; Lumiste, Kaarel; Robbins, Leslie J; Kreitsmann, Timmu; Romashkin, Alexander E.; Kirsimäe, Kalle; **Lepland, Aivo** Minerals 2021 / art. 368, 25 p. : ill <https://doi.org/10.3390/min11040368> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Joint efforts for utilization of oil shale ash in new areas**

**Kuusik, Rein**, **keemik**; **Uibu, Mai**; Kirsimäe, Kalle; Pototski, Aleksander; Meriste, Tõnis International oil shale symposium : Tallinn, Estonia, June 10-13, 2013 2013 / p. 52

### **Kunda clay pit**

Kirsimäe, Kalle; **Mens, Kaisa**; **Miidel, Avo** 15th Meeting of the Association of European Geological Societies "Georesources and public policy : research, management, environment" : 16-20 September 2007, Tallinn, Estonia : excursion guidebook 2007 / p. 52-53 : ill [https://www.ester.ee/record=b2291671\\*est](https://www.ester.ee/record=b2291671*est)

### **Linkage of diagenesis to depositional environments and stratigraphy in the northern part of the Baltic basin**

**Kleesment, Anne-Liis**; Kirsimäe, Kalle; **Martma, Tõnu**; **Šogenova, Alla**; **Urtson, Kristjan**; **Šogenov, Kazbulat** Estonian journal of earth sciences 2012 / p. 15-32 : ill [https://artiklid.elnet.ee/record=b2480019\\*est](https://artiklid.elnet.ee/record=b2480019*est)

### **Multiphase Silurian bentonites from western Estonia: possible diagenetic pathways**

**Hints, Rutt**; Kirsimäe, Kalle; Somelar, P.; **Kallaste, Toivo**; **Kiipli, Tarmo** The Seventh Baltic Stratigraphical Conference : 17-18 May 2008, Tallinn, Estonia : abstracts & field guide 2008 / p. 25

### **A new Byronia species from the Late Ordovician of Estonia**

Vinn, Olev; Kirsimäe, Kalle; Parry, Luke A.; **Toom, Ursula** Estonian journal of earth sciences 2016 / p. 201-206 : ill <https://doi.org/10.3176/earth.2016.17> [https://artiklid.elnet.ee/record=b2809365\\*est](https://artiklid.elnet.ee/record=b2809365*est)

### **Oleviku- ja tulevikumaavarade uuringud Eestis : RITA MAARE**

Ainsaar, Leho; Menert, Anne; Lust, Enn; **Tõnsuaadu, Kaia**; Kirsimäe, Kalle Riigikogu Toimetised 2021 / lk. 69–78 : ill [https://www.ester.ee/record=b1361123\\*est](https://www.ester.ee/record=b1361123*est) <https://rito.riigikogu.ee/wordpress/wp-content/uploads/2021/12/RiTo-44.pdf>

### **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](https://kirj.ee/public/oilshale_pdf/2012/issue_4/Oil-2012-4-376-403.pdf)

### **Origin and formation of methane in groundwater of glacial origin from the Cambrian-Vendian aquifer system in Estonia**

**Raidla, Valle**; **Pärn, Joonas**; Schloemer, Stefan; Aeschbach-Hertig, Werner; Czuppon, György; **Ivask, Jüri**; Marandi, Andres; Sepp, Holar; **Vaikmäe, Rein**; Kirsimäe, Kalle Geochimica et cosmochimica acta 2019 / p. 247-264 : ill <https://doi.org/10.1016/j.gca.2019.02.029> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Oxygenated conditions in the aftermath of the Lomagundi-Jatuli Event: The carbon isotope and rare earth element signatures of the Paleoproterozoic Zaonega Formation, Russia**

Kreitsmann, Timmu; Lepland, Aivo; Bau, M.; Prave, A.R.; Paiste, Kärt; Mänd, Kaarel; Sepp, Holar; **Martma, Tõnu**; **Romashkin, A.E.**; Kirsimäe, Kalle Precambrian research 2020 / art. 105855, 16 p. : ill <https://doi.org/10.1016/j.precamres.2020.105855> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Palaeoproterozoic oxygenated oceans following the Lomagundi-Jatuli Event**

Mänd, Kaarel; Lalonde, Stefan V.; Robbins, Leslie J.; Thoby, Marie; Paiste, Kärt; Kreitsmann, Timmu; **Paiste, Päärm**; Reinhard, Christopher T.; Romashkin, Alexander E.; Planavsky, Noah J.; Kirsimäe, Kalle; **Lepland, Aivo**; Konhauser, Kurt O. Nature geoscience

2020 / p. 302-306 <https://doi.org/10.1038/s41561-020-0558-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Potential influence of sulphur bacteria on Palaeoproterozoic phosphogenesis**

**Lepland, Aivo**; Joosu, Lauri; Kirsimäe, Kalle *Nature geoscience* 2014 / p. 20-24 : ill

### **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](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](#)

### **Redox zonation and organic matter oxidation in palaeogroundwater of glacial origin from the Baltic Artesian Basin**

**Pärn, Joonas**; Affolter, Stephane; **Ivask, Jüri**; Kirsimäe, Kalle; **Martma, Tõnu**; **Raidla, Valle**; **Vaikmäe, Rein** *Chemical geology*

2018 / p. 149-161 : ill <https://doi.org/10.1016/j.chemgeo.2018.04.027> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **A refined late-Cryogenian - Ediacaran earth history of South China: Phosphorous-rich marbles of the Dabie and Sulu orogens**

Prave, Anthony R.; Meng, Fanwei; **Lepland, Aivo**; Kirsimäe, Kalle; Kreitsmann, Timmu; Jiang, Clancy Zhijian *Precambrian research*

2018 / p. 166-176 : ill <https://doi.org/10.1016/j.precamres.2017.11.022> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Sulphur isotope composition of dissolved sulphate in the Cambrian–Vendian aquifer system in the northern part of the Baltic Artesian Basin**

**Raidla, Valle**; Kirsimäe, Kalle; **Ivask, Jüri**; **Kaup, Enn**; Knöller, Kay; Marandi, Andres; **Martma, Tõnu**; **Vaikmäe, Rein** *Chemical geology* 2014 / p. 147-154 : ill

### **The CO<sub>2</sub>-binding by Ca-Mg-silicates in direct aqueous carbonation of oil shale ash and steel slag**

**Uibu, Mai**; **Kuusik, Rein**, **keemik**; Andreas, Lale; Kirsimäe, Kalle *Energy procedia* 2011 / p. 925-932 : ill

### **Transformation of calcareous oil-shale circulating fluidized-bed combustion boiler ashes under wet conditions**

Liira, Martin; Kirsimäe, Kalle; **Kuusik, Rein**, **keemik**; Mõtsep, Riho *Fuel* 2009 / p. 712-718 : ill

<https://www.sciencedirect.com/science/article/pii/S0016236108003268>

### **Two hundred years of geology education in Estonia**

*Estonian journal of earth sciences* 2020 / p. 175-176 [https://kirj.ee/wp-content/plugins/kirj/pub/earth-4-2020-175-176\\_20201116140304.pdf](https://kirj.ee/wp-content/plugins/kirj/pub/earth-4-2020-175-176_20201116140304.pdf)

[http://www.ester.ee/record=b2246661\\*est](http://www.ester.ee/record=b2246661*est)

### **Two-billion-year-old evaporites capture Earth's great oxidation**

Blättler, C.L.; Kirsimäe, Kalle; Kreitsmann, Timmu; **Lepland, Aivo** *Science* 2018 / p. 320-323 <https://doi.org/10.1126/science.aar2687>

[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Ülevaade. Oleviku- ja tulevikumaavarade uuringud Eestis [Võrguväljaanne]**

Ainsaar, Leho; Menert, Anne; Lust, Enn; **Tõnsuaadu, Kaia**; Kirsimäe, Kalle *err.ee* 2022 "[Ülevaade. Oleviku- ja tulevikumaavarade uuringud Eestis](#)"