

#### **Abatement of CO<sub>2</sub> emission in Estonian energy sector**

**Uibu, Mai; Veskimäe, Helgi; Kuusik, Rein, keemik** Sixth International Symposium & Exhibition on Environmental Contamination in Central and Eastern Europe and the Commonwealth of Independent States : 1-4 September 2003, Prague, Czech Republic : symposium program 2003 / p. 194

#### **Abatement of CO<sub>2</sub> emission in Estonian energy sector [Electronic resource]**

**Uibu, Mai; Kuusik, Rein, keemik; Veskimäe, Helgi** VI International Symposium & Exhibition on Environmental Contamination in Central and Eastern Europe and the Commonwealth of Independent States : Prague, Czech Republic, 1-4 Sept. 2003 : proceedings 2004 / [5] p. [CD-ROM]

#### **Abatement of CO<sub>2</sub> emissions in Estonian oil shale-based power production**

**Uibu, Mai** 2008 <https://digi.lib.ttu.ee/?291> [https://www.ester.ee/record=b2449493\\*est](https://www.ester.ee/record=b2449493*est)

#### **Accelerated carbonation of Ca-rich fly ashes in non-cement applications = Kaltsiumirikka lendtuha kiirendatud karboniseerimine tsemendivabades rakendustes**

**Usta, Mustafa Cem** 2023 <https://doi.org/10.23658/taltech.63/2023> <https://digikogu.taltech.ee/et/Item/5cd96499-8d75-44fa-9599-6d3eee32b244> [https://www.ester.ee/record=b5645215\\*est](https://www.ester.ee/record=b5645215*est)

#### **Accelerated carbonation technology granulation of industrial waste : effects of mixture composition on product properties**

**Berber, Hakan; Tamm, Kadriann; Leinus, Mari-Liis; Kuusik, Rein, keemik; Tõnsuaadu, Kaia; Paaver, Peeter; Uibu, Mai** Waste management & research 2020 / p. 142-155 <https://doi.org/10.1177/0734242X19886646> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Accelerated carbonation treatment of industrial wastes: physicochemical, environmental and economic aspects = Tööstusjäätmete töötlemine kiirendatud karboniseerimismeetodil: füüsikalis-keemilised, keskkonnaalased ja majanduslikud aspektid**

**Berber, Hakan** 2020 <https://digikogu.taltech.ee/et/Item/e6d57289-35ba-46fc-9c05-c9ac6f982bf0>

#### **Aggregate production from burnt oil shale and CO<sub>2</sub> - an Estonian perspective**

**Berber, Hakan; Tamm, Kadriann; Leinus, Mari-Liis; Kuusik, Rein, keemik; Uibu, Mai** Oil Shale 2019 / p. 431-447 : ill <https://doi.org/10.3176/oil.2019.3.05> [http://www.kirj.ee/32493/?tpl=1061&c\\_tpl=1064](http://www.kirj.ee/32493/?tpl=1061&c_tpl=1064) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Application of thermal analysis techniques for studying the possibilities of utilization of oil shale ashes formed at electricity production in Estonia**

**Kaljuvee, Tiit; Uibu, Mai; Einard, Marve; Yörük, Can Rüstü; Trikkel, Andres; Kuusik, Rein, keemik** 5th Central and Eastern European Conference on Thermal Analysis and Calorimetry & 14th Mediterranean Conference on Calorimetry and Thermal Analysis, 27-30 August 2019, Roma, Italy: CEEC-TAC5 & Medicta2019 : book of abstracts 2019 / p. 47 <http://www.ceec-tac.org/download.php?f=../download/BoA%20CEEC-TAC5%20Medicta2019.pdf>

#### **Aqueous carbonation of oil shale wastes from Estonian power production for CO<sub>2</sub> fixation and PCC production**

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

#### **Assessing the frost resistance of illite-based ceramics through the resonant frequency of free vibration and internal damping**

**Hulan, Tomaš; Knapek, Michal; Minarik, Peter; Csaki, Štefan; Kaljuvee, Tiit; Uibu, Mai** AIP conference proceedings 2017 / art. 040015, p. 1-7 <https://doi.org/10.1063/1.4994495> [Conference proceedings at Scopus](#) [Article at Scopus](#) [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

#### **Behaviour of magnesium compounds at sulphation of lime-containing sorbents**

**Kaljuvee, Tiit; Kuusik, Rein, keemik; Uibu, Mai** Sixth International Symposium & Exhibition on Environmental Contamination in Central and Eastern Europe and the Commonwealth of Independent States : 1-4 September 2003, Prague, Czech Republic : symposium program 2003 / p. 191

#### **Behaviour of magnesium compounds at sulphation of lime-containing sorbents [Electronic resource]**

**Kaljuvee, Tiit; Kuusik, Rein, keemik; Uibu, Mai** VI International Symposium & Exhibition on Environmental Contamination in Central and Eastern Europe and the Commonwealth of Independent States : Prague, Czech Republic, 1-4 Sept. 2003 : proceedings 2004 / [5] p. [CD-ROM]

#### **Behaviour of sulfur compounds during aqueous leaching of oil shale ash**

**Tamm, Kadriann; Kuusik, Rein, keemik; Uibu, Mai; Kallas, Juha** Proceedings of the 4th International Conference on Accelerated

Carbonation for Environmental and Materials Engineering : ACEME 2013 : April 9-12, 2013, Leuven, Belgium 2013 / p. 541-545 : ill

### **Ca<sup>2+</sup>-ioonide leostuvus põlevkivituhkadest**

**Velts, Olga; Uibu, Mai; Rudjak, Irina; Kuusik, Rein, keemik** XXX Eesti keemiapäevad : teaduskonverentsi teesid = 30th Estonian Chemistry Days : abstracts of scientific conference 2007 / lk. 187-188

### **Calcium carbonate crystallization on the basis of waste oil shale ash leachates**

**Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** ISIC 18 : 18th International Symposium on Industrial Crystallization : 13-16 September 2011, Zurich, Switzerland : book of abstracts 2011 / p. 501 : ill

### **Calcium extraction from Estonian industrial ash based on ammonium solvents for production of precipitated calcium carbonate**

**Tamm, Kadriann; Viires, Regiina; Žuravljova, Anastassia; Otto, Kätlin; Kuusik, Rein, keemik; Uibu, Mai** International IX Oil Shale Conference 2017 "Oil Shale Industry in Circular Economy" : 15th-16th November 2017, [Jõhvi], Ida-Viru County, Estonia : summary 2017 / p. 28-29 : ill [http://www.ester.ee/record=b4751282\\*est](http://www.ester.ee/record=b4751282*est)

### **Calcium extraction from Estonian industrial wastes based on ammonium solvents**

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

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

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

### **Carbon dioxide binding in the heterogeneous systems formed at combustion of oil shale. 2, Interactions of system components - thermodynamic analysis**

**Kuusik, Rein, keemik; Türm, Leo; Triikkel, Andres; Uibu, Mai** Oil shale 2002 / 2, p. 143-160  
[https://artiklid.elnet.ee/record=b1010555\\*est](https://artiklid.elnet.ee/record=b1010555*est)

### **Carbon dioxide binding in the heterogeneous systems formed at combustion of oil shale. 3, Transformations in the system suspension of ash - flue gases**

**Kuusik, Rein, keemik; Veskimäe, Helgi; Uibu, Mai** Oil shale 2002 / p. 277-288 [https://www.ester.ee/record=b1072685\\*est](https://www.ester.ee/record=b1072685*est)  
[https://artiklid.elnet.ee/record=b1010555\\*est](https://artiklid.elnet.ee/record=b1010555*est)

### **Carbon dioxide long-term emissions and its storage options in the Baltic Region**

**Kavaliauskaite, Inga; Uibu, Mai; Teir, Sebastian; Kuusik, Rein, keemik; Zevenhoven, Ron; Defanas, G.** Ecosystems and sustainable development. V 2005 / p. 439-448

### **Carbon xerogel from 5-methylresorcinol-formaldehyde gel : the controllability of structural properties**

**Peikolainen, Anna-Liisa; Uibu, Mai; Kozlova, Jekaterina; Mändar, Hugo; Tamm, Aile; Aabloo, Alvo** Carbon trends 2021 / art. 100037, 11 p. : ill <https://doi.org/10.1016/j.cartre.2021.100037> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Carbonation and leaching behaviors of cement-free monoliths based on high-sulfur fly ashes with the incorporation of amorphous calcium aluminate**

**Usta, Mustafa Cem; Yörük, Can Rüstü; Uibu, Mai; Traksmaa, Rainer; Hain, Tiina; Gregor, Andre; Triikkel, Andres** ACS omega 2023 / p. 29543-29557 : ill <https://doi.org/10.1021/acsomega.3c03286> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Challenges and possible solutions in the Baltic Region after legislation of EU CCS directive**

**Šogenova, Alla; Šliaupa, Saulius; Šogenov, Kazbulat; Šliaupienė, Rasa; Pomeranceva, Raisa; Vaher, Rein; Uibu, Mai; Kuusik, Rein, keemik** 5th Congress of Balkan Geophysical Society Geophysics at the Cross-roads : 10-16 May 2009, Belgrade, Serbia 2009 / [6] p <https://www.etis.ee/Portal/Publications/Display/ec0af0a8-42ca-479d-823c-9cef94948ca7>

### **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 [https://artiklid.elnet.ee/record=b2352613\\*est](https://artiklid.elnet.ee/record=b2352613*est)

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

**Uibu, Mai; Siirde, Andres; Järvik, Oliver; Triikkel, 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>

### **CO<sub>2</sub> curing of Ca-rich fly ashes to produce cement-free building materials**

**Usta, Mustafa Cem; Yörük, Can Rüstü; Uibu, Mai; Hain, Tiina; Gregor, Andre; Triikkel, Andres** Minerals 2022 / art. 513, 24 p. : ill <https://doi.org/10.3390/min12050513> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**CO2 emission in Estonian oil shale based energy sector - prospects for abatement by wet mineral carbonization**  
**Kuusik, Rein, keemik; Uibu, Mai; Triikkel, Andres** GHGT-8 : 8th International Conference on Greenhouse Gas Control Technologies : 19-22 June 2006, Trondheim, Norway : book of abstracts, posters 2006 / p. 158

**CO2 geological storage and mineral trapping potential in the Baltic region**

**Šogenova, Alla;** Sliampa, Saulius; **Šogenov, Kazbulat;** Sliapiene, Rasa; Pomeranceva, Raisa; **Uibu, Mai; Kuusik, Rein, keemik**  
Slovak geological magazine 2008 / p. 5-14 : ill

**CO2 geological storage capacity analysis in Estonia and neighbouring regions**

**Šogenova, Alla; Šogenov, Kazbulat; Vaher, Rein; Ivask, Jüri;** Sliampa, Saulius; Vangkilde-Pedersen, Thomas; **Uibu, Mai; Kuusik, Rein, keemik** Energy procedia 2011 / p. 2785-2792 : ill

**CO2 mineral sequestration in oil-shale wastes from Estonian power production**

**Uibu, Mai;** Uus, Mati; **Kuusik, Rein, keemik** Journal of environmental management 2009 / p. 1253-1260 : ill

**CO2 mineral trapping : modeling of calcium carbonate precipitation in a semi-batch reactor**

**Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** Energy procedia 2011 / p. 771-778 : ill

**CO2 mineralisation : concept for co-utilization of oil shale energetics waste streams in CaCO<sub>3</sub> production**

**Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** Energy procedia 2013 / p. 5921-5928 : ill

<https://www.sciencedirect.com/science/article/pii/S1876610213007613> <https://doi.org/10.1016/j.egypro.2013.06.518> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**CO2 mineralisation : production of CaCO<sub>3</sub>-type material in a continuous flow disintegrator-reactor**

**Velts, Olga; Kindsigo, Merit; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** Energy procedia 2014 / p. 5904-5911 : ill

<https://doi.org/10.1016/j.egypro.2014.11.625> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**CO2 mineraliseerimine põlevkivienergeetikas - alused, võimalused ja olukord**

**Kuusik, Rein, keemik; Uibu, Mai; Triikkel, Andres** Keskkonnatehnika 2008 / 6, lk. 23-27 : ill

[https://artiklid.elnet.ee/record=b1022538\\*est](https://artiklid.elnet.ee/record=b1022538*est)

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

**Usta, Mustafa Cem; Yörük, Can Rüstü; Uibu, Mai; Kaljuvee, Tiit; Triikkel, Andres** GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 87 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

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

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

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

**Yörük, Can Rüstü; Uibu, Mai; Usta, Mustafa Cem; Kaljuvee, Tiit; Triikkel, Andres** 2nd Journal of Thermal Analysis and Calorimetry Conference, Budapest, June 18-21, 2019 : book of abstracts 2019 / p. 501 <https://jtac-jtacc.akcongress.com/>

**CO2 mineralization in cement sector : Lab scale experiments on burnt oil shale and concrete demolition wastes**

**Uibu, Mai; Usta, Mustafa Cem; Tamm, Kadriann; Žuravljova, Anastassia; Kallas, Juha; Kuusik, Rein, keemik; Triikkel, Andres** enos-project.eu 2018 / 18 p. : ill <http://www.enos-project.eu/highlights/conference/basreccs-enos-workshop/> [http://www.enos-project.eu/media/15321/8-basreccs-enos\\_muibu.pdf](http://www.enos-project.eu/media/15321/8-basreccs-enos_muibu.pdf)

**CO2 trapping from flue gases by oil shale ash aqueous suspension : Intensification and modeling of the process**

**Kuusik, Rein, keemik; Uibu, Mai; Velts, Olga; Triikkel, Andres; Kallas, Juha** Third International Conference on Accelerated Carbonation for Environmental and Materials Engineering : ACEME10 : November 29 - December 1, 2010, Turku, Finland : proceedings 2010 / p. 227-235 : ill

**CO2 wet mineralization by oil shale ash-reactivity of model compounds**

**Uibu, Mai;** Muulmann, Mari-Liis; **Kuusik, Rein, keemik** The 4th Nordic Minisymposium on Carbon Dioxide Capture and Storage : September 8-9, 2005, Otaniemi, Espoo : program, abstracts 2005 / [1] p

**Concept for CO2 mineralization by oil-shale waste ash in Estonian power production**

**Uibu, Mai; Kuusik, Rein, keemik** Conference proceedings of the 3rd International Green Energy Conference : June 17-21, 2007 at Mälardalen University in Västerås, Sweden 2007 / p. 12-13

**Correction to: CO2 mineralization by burnt oil shale and cement bypass dust: effect of operating temperature and pre-treatment (Journal of Thermal Analysis and Calorimetry, (2020), 142, 2, (991-999), 10.1007/s10973-020-09349-9)**

**Yörük, Can Rüstü; Uibu, Mai; Usta, Mustafa Cem; Kaljuvee, Tiit; Triikkel, Andres** Journal of Thermal Analysis and Calorimetry 2020 / p. 1001 <https://doi.org/10.1007/s10973-020-09973-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article](#)

[at WOS](#)

**Co-utilization of CO<sub>2</sub> and oil shale combustion wastes for production of PCC-type material**

**Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** 12th International Conference on Carbon Dioxide Utilization : ICCDU XII 2013 : June 23-27, 2013, Alexandria, VA, USA, Westin Hotel 2013 / p. 230

**Co-utilization of CO<sub>2</sub> and waste oil shale ash to produce calcium carbonate**

**Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** 11th International Conference on Carbon Dioxide Utilization (ICCDU XI), June 27-30, 2011, Dijon, France : programm & abstracts 2011 / p. P133 : ill

**Crystallization of calcium carbonate on the basis of oil shale waste ash in a continuous flow disintegrator-reactor**

**Velts, Olga; Kindsigo, Merit; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** ISIC 19 : 19th International Symposium on Industrial Crystallization : book of abstracts : 16-19 September 2014, Toulouse - France 2014 / p. 359-360 : ill

**Decomposition and sulphation of calcareous compounds during combustion of Estonian oil shale**

**Triikkel, Andres; Kuusik, Rein, keemik; Uibu, Mai** Sixth International Symposium & Exhibition on Environmental Contamination in Central and Eastern Europe and the Commonwealth of Independent States : 1-4 September 2003, Prague, Czech Republic : symposium program 2003 / p. 192

**Decomposition and sulphation of calcareous compounds during combustion of Estonian oil shale [Electronic resource]**

**Triikkel, Andres; Kuusik, Rein, keemik; Uibu, Mai** VI International Symposium & Exhibition on Environmental Contamination in Central and Eastern Europe and the Commonwealth of Independent States : Prague, Czech Republic, 1-4 Sept. 2003 : proceedings 2004 / [5] p. [CD-ROM]

**Developments in CO<sub>2</sub> mineral carbonation by oil shale ash**

**Uibu, Mai; Velts, Olga; Triikkel, Andres; Kallas, Juha; Kuusik, Rein, keemik** 2nd International Conference on Accelerated Carbonation for Environmental and Materials Engineering : October 1-3, 2008, Rome, Italy : proceedings 2008 / p. 421-430 : ill

**Developments in CO<sub>2</sub> mineral carbonation of oil shale ash**

**Uibu, Mai; Velts, Olga; Kuusik, Rein, keemik** Journal of hazardous materials 2010 / p. 209-214 : ill

**Edusammud põlevkivituha uudsete rakenduste väljatöötamises**

**Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** XXXII Eesti Keemiapäevad : teaduskonverentsi teesid 2011 / lk. 107 : ill

**Eesti põlevkivienergeetikas tekkivate tahkjäätmete märgkarboniseerimine SO<sub>2</sub> emissiooni vähendamiseks ning SKK saamiseks**

**Uibu, Mai; Velts, Olga; Kuusik, Rein, keemik** XXXII Eesti Keemiapäevad : teaduskonverentsi teesid 2011 / lk. 103

**Effect of ageing pre-treatment on performance of PF oil shale ash for CO<sub>2</sub> sequestration in aqueous suspensions**

**Uibu, Mai; Kuusik, Rein, keemik** Third International Conference on Accelerated Carbonation for Environmental and Materials Engineering : ACEME10 : November 29 - December 1, 2010, Turku, Finland : proceedings 2010 / p. 317-321 : ill  
<http://www.cgseurope.net/UserFiles/file/1st%20Kickoff%20meeting/Posters/P8-Uibu.pdf>

**Effect of process parameters on strength and carbonation of engineered building materials by calcium rich alkali wastes**

**Usta, Mustafa Cem; Yörük, Can Rüstü; Gregor, Andre; Hain, Tiina; Uibu, Mai; Triikkel, Andres** GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 40 [https://fmdtk.ut.ee/wp-content/uploads/2021/06/GSFMT\\_abstractbook\\_2021.pdf](https://fmdtk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf)

**Efforts in oil shale ash indirect carbonation accompanied by PCC-type material formation**

**Velts, Olga; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** Proceedings of the 4th International Conference on Accelerated Carbonation for Environmental and Materials Engineering : ACEME 2013 : April 9-12, 2013, Leuven, Belgium 2013 / p. 341-348 : ill

**Electrocatalysis of oxygen reduction by iron-containing nitrogen-doped carbon aerogels in alkaline solution**

**Sarapuu, Ave; Kreek, Kristiina; Kisand, Kaarel; Kook, Mati; Uibu, Mai; Koel, Mihkel; Tammeveski, Kaido** Electrochimica acta 2017 / p. 81-88 : ill <https://doi.org/10.1016/j.electacta.2017.01.157> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Electrocatalysts for oxygen reduction reaction based on electrospun polyacrylonitrile, styrene-acrylonitrile copolymer and carbon nanotube composite fibres**

**Mooste, Marek; Kibena-Pöldsepp, Elo; Vassiljeva, Viktoria; Uibu, Mai; Krumme, Andres** Journal of materials science 2019 / p. 11618-11634 : ill <https://doi.org/10.1007/s10853-019-03725-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Enhanced sustainability of aerated building blocks: Utilization of accelerated carbonation and oil shale ash in cement composites**

**Thomas, Adheena; Yörük, Can Rüstü; Pantšenko, Nata-Ly; Hain, Tiina; Uibu, Mai; Triikkel, Andres** Book of abstracts of 2nd

#### **Equilibrium calculations in aqueous carbonation of oil shale waste-sulfur compounds**

**Tamm, Kadriann; Uibu, Mai; Kallaste, Priit; Kuusik, Rein, keemik; Kallas, Juha** Proceedings of 2nd World Congress on Petrochemistry and Chemical Engineering : October 27-29, 2014, Embassy Suites Las Vegas, USA 2014 / p. 40

#### **Equilibriums in aqueous carbonation of oil shale waste**

**Tamm, Kadriann; Uibu, Mai; Kallaste, Priit; Kuusik, Rein, keemik; Kallas, Juha** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p. : ill

#### **Evaluation of new applications of oil shale ashes in building materials**

**Usta, Mustafa Cem; Yörük, Can Rüstü; Hain, Tiina; Paaver, Peeter; Snellings, Ruben; Rozov, Eduard; Gregor, Andre; Kuusik, Rein, keemik; Triikkel, Andres; Uibu, Mai** Minerals 2020 / art. 765, 19 p. : ill <https://doi.org/10.3390/min10090765> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Feasibility of carbonation of alkaline waste oil shale ash in the rocking-type autoclave reactor**

**Velts-Jänes, Olga; Uibu, Mai; Santos, Rafael; Rijnsburger, Keesjan; Knops, Pol; Kuusik, Rein, keemik** 5th International Conference on Accelerated Carbonation for Environmental and Material Engineering 2015 : New York, New York, USA, 21-24 June 2015 / p. 87-94

#### **From waste to value : CaCO<sub>3</sub> crystallization on the basis of waste oil shale ash**

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

#### **Geological storage and mineral trapping of industrial CO<sub>2</sub> emissions - prospects in the Baltic Region**

**Šogenova, Alla; Sliupa, Saulius; Šogenov, Kazbulat; Sliapiene, Rasa; Pomeranceva, Raisa; Uibu, Mai; Kuusik, Rein, keemik** First CO<sub>2</sub> Geological Storage Workshop, 29-30 September 2008, Budapest, Hungary. A04 2008 / p. 25-30

#### **Granulation of oil shale ashes for neutralizing of acidic soils**

**Kaljuvee, Tiit; Jefimova, Jekaterina; Loide, Valli; Uibu, Mai; Einard, Marve; Kuusik, Rein, keemik** International IX Oil Shale Conference 2017 "Oil Shale Industry in Circular Economy" : 15th-16th November 2017, [Jõhvi], Ida-Viru County, Estonia : summary 2017 / p. 16-17 [http://www.ester.ee/record=b4751282\\*est](http://www.ester.ee/record=b4751282*est)

#### **Implementation of the leaching models to estimate oil shale ash disposal and handling processes**

**Tamm, Kadriann; Uibu, Mai; Viires, Regiina; Kallas, Juha; Kuusik, Rein, keemik** International Symposium "Oil shale 100 years" : Estonia, Sept. 20-23, 2016 : [abstracts] 2016 / p. 45-46

#### **Influence of electrolyte scaffold microstructure and loading of MIEC material on the electrochemical performance of RSOC fuel electrode**

**Maide, Martin; Lillmaa, Kadi; Salvan, Laur Kristjan; Möller, Priit; Uibu, Mai; Lust, Enn; Nurk, Gunnar** Fuel Cells 2018 / p. 789-799 <https://doi.org/10.1002/fuce.201800087> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Influence of electrolyte scaffold microstructure and loading of miec material on the electrochemical performance of r-soc fuel electrode [Online resource]**

**Maide, Martin; Lillmaa, Kadi; Salvan, Laur Kristjan; Uibu, Mai; Lust, Enn; Nurk, Gunnar** Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märtsil 2018, Tallinn : teesid] GSFMT Scientific Conference 2018 : Tallinn, March 7-8, 2018 : abstracts 2018 / 1 p <http://fntdk.ut.ee/teesid-2018/>

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

**Kaljuvee, Tiit; Jefimova, Jekaterina; Loide, Valli; Uibu, Mai; Einard, Marve** Journal of thermal analysis and calorimetry 2018 / p. 47-57 : ill <https://doi.org/10.1007/s10973-017-6875-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

**Kaljuvee, Tiit; Jefimova, Jekaterina; Loide, Valli; Uibu, Mai; Einard, Marve; Kuusik, Rein, keemik** JTACC+V4 : 1st Journal of Thermal Analysis and Calorimetry Conference and 6th V4 (Joint Czech-Hungarian-Polish-Slovakian) Thermoanalytical Conference: Budapest Hungary, June 6-9, 2017 : Book of Abstracts 2017 / p. 105 <https://static.akcongress.com/downloads/jtacc/jtacc2017-book-of-abstracts.pdf>

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

**Kaljuvee, Tiit; Štubna, Igor; Hulan, Tomaš; Csaki, Štefan; Uibu, Mai; Jefimova, Jekaterina** Journal of thermal analysis and calorimetry 2019 / p. 2635-2650 : ill <https://doi.org/10.1007/s10973-019-08319-0> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

**Kaljuvee, Tiit; Štubna, Igor; Hulan, Tomaš; Csaki, Štefan; Uibu, Mai; Jefimova, Jekaterina** 12th European Symposium on Thermal Analysis and Calorimetry ESTAC 12 : 27-30 August 2018, Brasov, Romania : book of abstracts 2018 / OP1.19, p. 75  
<http://estac12.org/download.php?f=../download/BoA%20ESTAC12.pdf>

## **Inkjet-printed hybrid conducting polymer-activated carbon aerogel linear actuators driven in an organic electrolyte**

**Põdsalu, Inga; Harjo, Madis; Tamm, Tarmo; Uibu, Mai; Peikola, Anna-Liisa; Kiefer, Rudolf** Sensors and actuators B : chemical 2017 / p. 44-51 : ill <https://doi.org/10.1016/j.snb.2017.04.138> [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

## **Karboniseerimisprotsessi pidurdumismehhanism süsteemis põlevkivituhk-vesi-CO<sub>2</sub>**

**Uibu, Mai; Kuusik, Rein, keemik** XXX Eesti keemiapäevad : teaduskonverentsi teesid = 30th Estonian Chemistry Days : abstracts of scientific conference 2007 / lk. 175-176

## **Kliimamuutuste leevendamise 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

## **Leaching behaviour of Estonian oil shale ash-based construction mortars**

**Irha, Natalja; Uibu, Mai; Jefimova, Jekaterina; Raado, Lembi-Merike; Hain, Tiina; Kuusik, Rein, keemik** Oil shale 2014 / p. 394-411 : ill [https://artiklid.elnet.ee/record=b2704135\\*est](https://artiklid.elnet.ee/record=b2704135*est) <https://doi.org/10.3176/oil.2014.4.07> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Leaching of the water-soluble calcium components of oil shale waste ash = Kaltsiumiühendite leostumine põlevkivituha vesisüsteemides**

**Tamm, Kadriann** 2016 [https://www.ester.ee/record=b4561681\\*est](https://www.ester.ee/record=b4561681*est)

## **Leaching thermodynamics and kinetics of oil shale waste key components**

**Tamm, Kadriann; Kallaste, Priit; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** 5th International Conference on Accelerated Carbonation for Environmental and Material Engineering 2015 : New York, New York, USA, 21-24 June 2015 2015 / p. 143-153

## **Leaching thermodynamics and kinetics of oil shale waste key components**

**Tamm, Kadriann; Kallaste, Priit; Uibu, Mai; Kallas, Juha; Velts-Jänes, Olga; Kuusik, Rein, keemik** Oil shale 2016 / p. 80-99 : ill [https://artiklid.elnet.ee/record=b2760706\\*est](https://artiklid.elnet.ee/record=b2760706*est) <https://doi.org/10.3176/oil.2016.1.07> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Main physicochemical factors affecting the aqueous carbonation of oil shale ash**

**Uibu, Mai; Kuusik, Rein, keemik** Minerals engineering 2014 / p. 64-70 : ill <https://doi.org/10.1016/j.mineng.2013.10.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **MC technologies developed for waste materials**

**Uibu, Mai; Viies, Regiina; Kuusik, Rein, keemik** CO<sub>2</sub> sequestration by ex-situ mineral carbonation 2017 / p. 91-131 : ill [https://doi.org/10.1142/9781786341600\\_0004](https://doi.org/10.1142/9781786341600_0004)

## **Mineral CO<sub>2</sub> sequestration by aqueous carbonation of oil shale ash from Estonian power production**

**Uibu, Mai; Kuusik, Rein, keemik** International Oil Shale Symposium : Tallinn, Estonia, June 8-11, 2009 : future energy solutions : come and share your vision! 2009 / p. 66-67 [http://www.ester.ee/record=b4775098\\*est](http://www.ester.ee/record=b4775098*est)

## **Mineral sequestration of CO<sub>2</sub> from Vernasca Ca-looping demo system : scale up to a pilot**

**Usta, Mustafa Cem; Uibu, Mai; Yörük, Can Rüstü; Tamm, Kadriann; Kuusik, Rein, keemik; Triikkel, Andres; Gastaldi, Daniela; Canonico, Fulvio** Proceedings of the 15th Greenhouse Gas Control Technologies Conference 15-18 March 2021 2021 / 12 p.: ill <https://ssrn.com/abstract=3812245> <https://doi.org/10.2139/ssrn.3812245>

## **Mineral trapping of CO<sub>2</sub> for cement industry de-carbonization**

**Uibu, Mai; Usta, Mustafa Cem; Tamm, Kadriann; Žuravljova, Anastassia; Kallas, Juha; Kuusik, Rein, keemik; Triikkel, Andres** 14th Greenhouse Gas Control Technologies Conference Melbourne 21-26 October 2018 (GHGT-14) 2019 / 8 p.: ill <https://ssrn.com/abstract=3365766>

## **Mineral trapping of CO<sub>2</sub> in oil shale industry**

**Tamm, Kadriann; Uibu, Mai; Žuravljova, Anastassia; Usta, Mustafa Cem; Leier, Ae; Kallas, Juha; Kuusik, Rein, keemik; Triikkel, Andres** <https://www.ttu.ee/asutused/polevkivi-kompetentsikeskus> 2018 / Poster <https://www.ttu.ee/asutused/polevkivi->

**Mineral trapping of CO<sub>2</sub> via oil shale ash aqueous carbonation : controlling mechanism of process rate and development of continuous-flow reactor system**

**Uibu, Mai; Kuusik, Rein, keemik** Oil shale 2009 / 1, p. 40-58 : ill [https://artiklid.elnet.ee/record=b1141327\\*est](https://artiklid.elnet.ee/record=b1141327*est)

**Mineralogical composition and strength formation of oil shale ash based building composites**

**Raado, Lembi-Merike; Hain, Tiina; Somelar, Peeter; Uibu, Mai** International oil shale symposium : Tallinn, Estonia, June 10-13, 2013 2013 / p. 58

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

**Tamm, Kadriann; Kallas, Juha; Kuusik, Rein, keemik; Uibu, Mai** Energy procedia 2017 / p. 5409-5416 : ill <https://doi.org/10.1016/j.egypro.2017.03.1685> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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

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

**Modelling of CO<sub>2</sub> mass transfer and hydrodynamics in a semi-batch reactor**

**Velts, Olga; Hautaniemi, Marjaana; Uibu, Mai; Kallas, Juha; Kuusik, Rein, keemik** Journal of international scientific publication : materials, methods & technologies 2010 / 2, p. 68-79 : ill [https://www.researchgate.net/publication/284688605\\_Modelling\\_of\\_CO2\\_mass\\_transfer\\_and\\_hydrodynamics\\_in\\_a\\_semi-batch\\_reactor](https://www.researchgate.net/publication/284688605_Modelling_of_CO2_mass_transfer_and_hydrodynamics_in_a_semi-batch_reactor)

**Natural minerals opoka and glauconite as sorbents for acidic gases**

**Kavaliauskaite, Inga; Denafas, Gintaras; Uibu, Mai; Kuusik, Rein, keemik** Environmental research, engineering and management 2006 / 3, p. 36-42 : ill [https://www.researchgate.net/publication/228751613\\_Natural\\_Minerals\\_Opoka\\_and\\_Glauconite\\_as\\_Sorbents\\_for\\_Acidic\\_Gases](https://www.researchgate.net/publication/228751613_Natural_Minerals_Opoka_and_Glauconite_as_Sorbents_for_Acidic_Gases)

**New carbon-based catalyst synthesis from spent li-ion batteries for electrochemical oxygen reduction**

**Kazemi, Maryam; Liivand, Kerli; Kruusenberg, Ivar; Walke, Peter; Mikli, Valdek; Uibu, Mai; Macdonald, Digby D.** GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 42 [https://fmdtk.ut.ee/wp-content/uploads/2021/06/GSFMT\\_abstractbook\\_2021.pdf](https://fmdtk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf)

**Nickel and nitrogen-doped bifunctional ORR and HER electrocatalysts derived from CO<sub>2</sub>**

**Rommel, Anna-Liis; Ratso, Sander; Divitini, Giorgio; Danilson, Mati; Mikli, Valdek; Uibu, Mai; Aruväli, Jaan; Kruusenberg, Ivar** ACS Sustainable Chemistry and Engineering 2022 / p. 134-145 <https://doi.org/10.1021/acssuschemeng.1c05250> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

**Uibu, Mai; Somelar, Peeter; Raado, Lembi-Merike; Irha, Natalja; Hain, Tiina; Koroljova, Arina; Kuusik, Rein, keemik** Construction and building materials 2016 / p. 620-630 : ill <https://doi.org/10.1016/j.conbuildmat.2015.10.197> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Oil shale ash based stone formation - hydration, hardening dynamics and phase transformations**

**Raado, Lembi-Merike; Kuusik, Rein, keemik; Hain, Tiina; Uibu, Mai; Somelar, Peeter** Oil shale 2014 / p. 91-101 : ill [https://artiklid.elnet.ee/record=b2664060\\*est](https://artiklid.elnet.ee/record=b2664060*est) <https://doi.org/10.3176/oil.2014.1.09> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Oil shale ashes as binders of acid gases**

**Kuusik, Rein, keemik; Kaljuvee, Tiit; Kulp, Igor; Uibu, Mai** Abstracts : Symposium on Oil Shale 2002, 18-21 November 2002, Tallinn, Estonia 2002 / p. 71-72 [https://www.ester.ee/record=b1703301\\*est](https://www.ester.ee/record=b1703301*est)

**Oil shale phenol-derived aerogels as supports for palladium nanoparticles**

**Perez-Caballero, Fernando; Peikolainen, Anna-Liisa; Uibu, Mai; Herbert, M.; Galindo, A.; Montilla, F.; Koel, Mihkel** Oil shale 2009 / 1, p. 28-39 : ill [https://artiklid.elnet.ee/record=b1141307\\*est](https://artiklid.elnet.ee/record=b1141307*est)

**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)

**Organic acid catalyzed synthesis of 5-methylresorcinol based organic aerogels in acetonitrile**

**Peikolainen, Anna-Liisa; Volobujeva, Olga; Aav, Riina; Uibu, Mai; Koel, Mihkel** Journal of porous materials 2012 / p. 189-194 : ill [https://www.researchgate.net/publication/228068858\\_Organic\\_acid\\_catalyzed\\_synthesis\\_of\\_5-methylresorcinol\\_based\\_organic\\_aerogels\\_in\\_acetonitrile](https://www.researchgate.net/publication/228068858_Organic_acid_catalyzed_synthesis_of_5-methylresorcinol_based_organic_aerogels_in_acetonitrile)

### **Organic and carbon aerogels containing rare-earth metals : their properties and application as catalysts**

Kreek, Kristiina; Kriis, Kadri; Maaten, Birgit; Uibu, Mai; Mere, Arvo; Kanger, Tõnis; Koel, Mihkel Journal of non-crystalline solids 2014 / p. 43-48 : ill <https://doi.org/10.1016/j.jnoncrysol.2014.07.021> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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

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

### **Performance evaluation of flue gas cured calcium rich fly ash-based building blocks : [flash paper presentation]**

Usta, Mustafa Cem; Adegbile, A. M.; Gregor, Andre; Paaver, Peeter; Hain, Tiina; Yörük, Can Rüstü; Uibu, Mai; Trikkel, Andres 17th International Conference on Environmental Science and Technology CEST2021, 1-4 September 2021, Athens, Greece 2021 / [flash paper presentation]

### **Physicochemical factors affecting aqueous carbonation of oil shale ash**

Uibu, Mai; Kuusik, Rein, keemik Proceedings of the 4th International Conference on Accelerated Carbonation for Environmental and Materials Engineering : ACEME 2013 : April 9-12, 2013, Leuven, Belgium 2013 / p. 295-304 : ill

### **Possibilities for geological storage and mineral trapping of industrial CO<sub>2</sub> emissions in the Baltic region**

Šogenova, Alla; Sliupa, Saulius; Šogenov, Kazbulat; Sliapiene, Rasa; Pomeranceva, Raisa; Vaher, Rein; Uibu, Mai; Kuusik, Rein, keemik Energy procedia 2009 / p. 2753-2760 : ill

### **Preparation of carbon aerogels from 5-methylresorcinol-formaldehyde gels**

Perez-Caballero, Fernando; Peikolainen, Anna-Liisa; Uibu, Mai; Kuusik, Rein, keemik; Volobujeva, Olga; Koel, Mihkel Microporous and mesoporous materials 2008 / p. 230-236 : ill

### **Preparation of metal-doped carbon aerogels from oil shale processing by-products**

Kreek, Kristiina; Kulp, Maria; Uibu, Mai; Mere, Arvo; Koel, Mihkel Oil shale 2014 / p. 185-194 : ill [https://artiklid.elnet.ee/record=b2673721\\*est](https://artiklid.elnet.ee/record=b2673721*est) <https://doi.org/10.3176/oil.2014.2.08> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

### **Prospects for CO<sub>2</sub> mineralization in Estonia**

Kuusik, Rein, keemik; Uibu, Mai GEO ENERGY : the newsletter of the ENER Network 2012 / p. [3] : ill

### **Prospects in waste oil shale ash sustainable valorization**

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

### **Põlevkivi tolmpõletus- ja keevkihttuukade vesisuspensiooni karboniseerimine**

Uibu, Mai; Muulmann, Mari-Liis; Kuusik, Rein, keemik XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 126

### **Põlevkivituha vesisuspensioonid CO<sub>2</sub> sidujana**

Uibu, Mai; Kuusik, Rein, keemik XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 154-155

### **Reducing of carbon dioxide emissions at oil shale ash deposition**

Pihu, Tõnu; Arro, Hendrik; Konist, Alar; Kuusik, Rein, keemik; Prikk, Arvi; Uibu, Mai International Oil Shale Symposium : Tallinn, Estonia, June 8-11, 2009 : future energy solutions : come and share your vision! 2009 / p. 49-50 [http://www.estee.ee/record=b4775098\\*est](http://www.estee.ee/record=b4775098*est)

### **Reduction of CO<sub>2</sub> emissions by carbonation of alkaline wastewater**

Uibu, Mai; Velts, Olga; Trikkel, Andres; Kuusik, Rein, keemik Air pollution XVI 2008 / p. 311-320 : ill

### **Reuse of waste ashes formed at oil shale based power industry in Estonia**

Kuusik, Rein, keemik; Uibu, Mai; Trikkel, Andres; Kaljuvee, Tiit Waste management and the environment III 2006 / p. 111-120 : ill

### **A review of mineral carbonation technologies to sequester CO<sub>2</sub>**

Sanna, Aimaro; Uibu, Mai; Caramanna, Giorgio; Kuusik, Rein, keemik; Maroto-Valer, M. Mercedes Chemical Society reviews 2014 / p. 8049-8080 : ill <https://doi.org/10.1039/C4CS00035H> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

### **Seasonal binding of atmospheric CO<sub>2</sub> by oil shale ash**

Uibu, Mai; Kuusik, Rein, keemik; Veskimäe, Helgi Oil shale 2008 / 2, p. 254-266 : ill [https://artiklid.elnet.ee/record=b2384425\\*est](https://artiklid.elnet.ee/record=b2384425*est)

### **Simplified model of oxy-combustion for Estonian oil shale**

**Yörük, Can Rüstü; Triikkel, Andres; Uibu, Mai; Kuusik, Rein, keemik** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

### **Sol-gel derived carbon microspheres by continuous ultrasonic spray pyrolysis**

Peikolainen, Anna-Liisa; **Uibu, Mai**; Aabloo, Alvo 31st Annual Conference of the European Society for Biomaterials (ESB 2021) 2021 [https://eventclass.org/contxt\\_esb2021/scientific/online-program/session?s=AERO+PS01](https://eventclass.org/contxt_esb2021/scientific/online-program/session?s=AERO+PS01)

### **Strength development and leachability of oil shale ash based backfilling concrete**

**Uibu, Mai**; Somelar, Peeter; **Raado, Lembi-Merike**; Irha, Natalja; Kuusik, Rein, keemik International Symposium "Oil shale 100 years" : Estonia, Sept. 20-23, 2016 : [abstracts] 2016 / p. 46-47

### **Study of thermooxidation of oil shale samples and basics of processes for utilization of oil shale ashes**

**Kaljuvee, Tiit; Uibu, Mai; Yörük, Can Rüstü; Einard, Marve; Triikkel, Andres; Kuusik, Rein, keemik**; Trass, Olev; Štubna, Igor; Hulan, Tomaš; Loide, Valli; Jefimova, Jekaterina Minerals 2021 / at. 193 <https://doi.org/10.3390/min11020193> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Sulphation and carbonization of oil shale CFBC ashes in heterogeneous systems**

**Kuusik, Rein, keemik; Uibu, Mai**; Toom, M.; Muulmann, Mari-Liis; **Kaljuvee, Tiit; Triikkel, Andres** Oil shale 2005 / 4S, p. 421-434 : ill [https://artiklid.elnet.ee/record=b2352615\\*est](https://artiklid.elnet.ee/record=b2352615*est)

### **Süsinikdioksiidi emissiooni piiramine energiatootmises - suundumused maailmas ja perspektiivid Eestis**

**Kuusik, Rein, keemik; Uibu, Mai** XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 51

### **TalTechi keemikud saadavad tsemenditolmu koos süsinikdioksiidiga ringkasutusse**

**Uibu, Mai** Ehitaja 2021 / lk. 36 : fot [https://www.ester.ee/record=b1072123\\*est](https://www.ester.ee/record=b1072123*est) <https://doi.org/10.1007/s10973-020-09349-9>

### **Techno-economic modelling of the Baltic CCUS onshore scenario**

**Šogenova, Alla; Šogenov, Kazbulat; Uibu, Mai; Kuusik, Rein, keemik; Simmer, Karl** Baltic Carbon Forum 2022 / p. 4 <https://doi.org/10.21595/bcf.2022.22841>

### **Techno-economic modelling of the Baltic CCUS onshore scenario : [PowerPoint presentation]**

**Šogenova, Alla; Šogenov, Kazbulat; Simmer, Karl; Uibu, Mai; Kuusik, Rein, keemik** 2022 [https://bcforum.net/forum\\_presentations2022/03\\_03\\_Dr.%20Alla%20Shogenova%20\(TalTech.%20Estonia\)%20.pdf](https://bcforum.net/forum_presentations2022/03_03_Dr.%20Alla%20Shogenova%20(TalTech.%20Estonia)%20.pdf)

### **Techno-economic modelling of the Baltic CCUS onshore scenario for the cement industry supported by CLEANER project**

**Šogenova, Alla; Šogenov, Kazbulat; Uibu, Mai; Kuusik, Rein, keemik; Simmer, Karl; Canonico, Fulvio** Proceedings of the 15th Greenhouse Gas Control Technologies Conference 15-18 March 2021 2021 / 13 p. : ill <https://ssrn.com/abstract=3817710> <https://doi.org/10.2139/ssrn.3817710>

### **The behaviour of Ca-Mg-silicates in direct aqueous carbonation of oil shale ash [Electronic resource]**

**Uibu, Mai; Kuusik, Rein, keemik** Innovation for Sustainable Production 2010. Conference 5. Carbon Capture and Storage (CCS) : [18-21 April, 2010] : proceedings 2010 / p. 75-79 : ill. [CD-ROM]

### **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 [https://www.researchgate.net/publication/251711714\\_The\\_CO\\_2\\_-binding\\_by\\_Ca-Mg-silicates\\_in\\_direct\\_aqueous\\_carbonation\\_of\\_oil\\_shale\\_ash\\_and\\_steel\\_slag](https://www.researchgate.net/publication/251711714_The_CO_2_-binding_by_Ca-Mg-silicates_in_direct_aqueous_carbonation_of_oil_shale_ash_and_steel_slag)

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

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

### **The Formation of microcracks in water-saturated porous ceramics during freeze–thaw cycles followed by acoustic emission**

Hulan, Tomaš; Knapek, Michal; **Kaljuvee, Tiit; Uibu, Mai** Journal of nondestructive evaluation 2021 / art. 13 <https://doi.org/10.1007/s10921-020-00748-4> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **The study of firing of a ceramic body made from illite and fluidized bed combustion fly ash**

Hulan, Tomaš; Trnik, Anton; **Kaljuvee, Tiit; Uibu, Mai**; Štubna, Igor; **Kallavus, Urve; Traksmäa, Rainer** Journal of thermal analysis and calorimetry 2017 / p. 79–89 : ill <https://doi.org/10.1007/s10973-016-5477-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **The sulfur intermediate oxidation forms in oil shale ash suspension**

**Tamm, Kadriann; Kuusik, Rein, keemik; Uibu, Mai; Kallas, Juha; Priks, Hans** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" 2013 / [1] p

### **Thermal activation and pozzolanic reactivity of Estonian clays for cementitious applications**

**Yörük, Can Rüstü; Adegbile, Ademola Michael; Tuisk, Tanel; Hain, Tiina; Uibu, Mai; Usta, Mustafa Cem; Triikkel, Andres** JTACC+V4 2025 : 4th Journal of Thermal Analysis and Calorimetry Conference & 10th V4 (Joint Czech-Hungarian-Polish-Slovak) Thermoanalytical Conference : Book of Abstracts 2025 / p. 70 <https://static.akcongress.com/downloads/jtacc/jtacc2025/jtacc2025-boa.pdf>

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

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

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

**Kaljuvee, Tiit; Štubna, Igor; Hulan, Tomáš; Uibu, Mai; Einard, Marve; Traksmäa, Rainer; Viljus, Mart; Jefimova, Jekaterina; Triikkel, Andres** ICTAC 2020 : 17th International Congress on Thermal Analysis and Calorimetry : 8th Joint Czech-Hungarian-Polish-Slovakian Thermoanalytical Conference (V4 8) : 14th Conference on Calorimetry and Thermal Analysis of the Polish Society of Calorimetry and Thermal Analysis (CCTA 14), online conference, [Kraków], 29 August - 2 September 2021 : e-book of abstracts, 2021 2021 / p. 68 [https://cris.vub.be/ws/portalfiles/portal/74787050/\\_e\\_Book\\_of\\_Abstracts\\_ICTAC2020.pdf](https://cris.vub.be/ws/portalfiles/portal/74787050/_e_Book_of_Abstracts_ICTAC2020.pdf)

### **Thermal-kinetic study of Estonian clays and calcium/sulphur-rich industrial by-product under varied calcination atmospheres**

**Adeomola, Michael Adegbile; Yörük, Can Rüstü; Patsenko, Nata-Ly; Uibu, Mai; Thomas, Adheena; Usta, Mustafa Cem; Triikkel, Andres** JTACC+V4 2025 : 4th Journal of Thermal Analysis and Calorimetry Conference & 10th V4 (Joint Czech-Hungarian-Polish-Slovak) Thermoanalytical Conference : Book of Abstracts 2025 / p. 172-173 <https://static.akcongress.com/downloads/jtacc/jtacc2025/jtacc2025-boa.pdf>

### **Thermodynamic and kinetic study of CaS in aqueous systems**

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

### **Transformations in oil shale ash at wet deposition**

**Kuusik, Rein, keemik; Paat, Aadu; Veskimäe, Helgi; Uibu, Mai** Oil shale 2004 / 1, p. 27-42 : ill [https://artiklid.elnet.ee/record=b1015101\\*est](https://artiklid.elnet.ee/record=b1015101*est)

### **Transformations in the solid and liquid phase at aqueous carbonization of oil shale ash**

**Uibu, Mai; Triikkel, Andres; Kuusik, Rein, keemik** Ecosystems and sustainable development. VI 2007 / p. 473-482 : ill

### **Transformations of sulfides during aqueous carbonation of oil shale ash**

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

### **Transformations of sulfur compounds in oil shale ash suspension**

**Tamm, Kadriann; Kuusik, Rein, keemik; Uibu, Mai; Kallas, Juha** Waste management and the environment VI 2012 / p. 25-35 : ill <https://www.witpress.com/elibrary/wit-transactions-on-ecology-and-the-environment/163/23681>

### **Tsemenditolm aitab vähendada süsinikuheidet [Võrguväljaanne]**

**Uibu, Mai** novaator.err.ee 2021 / fot [Tsemenditolm aitab vähendada süsinikuheidet](#)

### **Tööstusjäätmetest granuleeritud täitematerjali saamise optimeerimine ja produkti kvaliteedi hindamine**

**Leinus, Mari-Liis; Berber, Hakan; Tamm, Kadriann; Uibu, Mai** XXXIV Eesti keemiapäevad : 100. aastapäeva teaduskonverentsi teesid 2019 / lk. 22

### **Utilization of oil shale ash as a concrete constituent and carbon sink**

**Uibu, Mai; Somelar, Peeter; Raado, Lembi-Merike; Irha, Natalja; Koroljova, Arina; Kuusik, Rein, keemik** 5th International Conference on Accelerated Carbonation for Environmental and Material Engineering 2015 : New York, New York, USA, 21-24 June 2015 2015 / p. 120-129 : ill

### **Utilization of oil shale ash to prepare PCC : leachability dynamics and equilibrium in the ash-water system**

**Velts, Olga; Uibu, Mai; Rudjak, Irina; Kallas, Juha; Kuusik, Rein, keemik** Energy procedia 2009 / p. 4843-4850 : ill <https://www.sciencedirect.com/science/article/pii/S1876610209009552>

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

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

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

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

**Väävliühendid põlevkivituha märgkarboniseerimisel**

**Tamm, Kadriann; Uibu, Mai; Kuusik, Rein, keemik; Kallas, Juha** XXXIII Eesti Keemiapäevad : teaduskonverentsi teesid 2013 / lk. 78