

## **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

## **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

## **CO<sub>2</sub> 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

## **CO<sub>2</sub> 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](#)

## **CO<sub>2</sub> 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](#)

## **CO<sub>2</sub> 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 : ACEME 10 : November 29 - December 1, 2010, Turku, Finland : proceedings 2010 / p. 227-235 : ill

## **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

## **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

## **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

## **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

## **Kaltsiumi leostumine põlevkivituhast - protsessi modelleerimine**

**Velts, Olga; Kallas, Juha; Kuusik, Rein, keemik** XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 81

**Modeling calcium dissolution from oil shale ash. Part 1, Ca dissolution during ash washing in a batch reactor**

**Velts, Olga;** Hautaniemi, Marjaana; **Kallas, Juha; Kuusik, Rein, keemik** Fuel processing technology 2010 / 5, p. 486-490 : ill  
<https://www.sciencedirect.com/science/article/abs/pii/S0378382009003567>

**Modeling calcium dissolution from oil shale ash. Part 2, Continuous washing of the ash layer**

**Velts, Olga;** Hautaniemi, Marjaana; **Kallas, Juha;** Kuosa, Markku; **Kuusik, Rein, keemik** Fuel processing technology 2010 / 5, p. 491-495 : ill <https://www.sciencedirect.com/science/article/pii/S0378382009003579>

**Modeling of calcium leaching from lime-consisting oil shale combustion ash**

**Velts, Olga; Kallas, Juha; 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. 323-326 : ill  
<https://www.sciencedirect.com/science/article/abs/pii/S0378382009003579>

**Modelling of CO2 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)

**Oil shale ash as a source of calcium for calcium carbonate : process feasibility, mechanism and modeling = Põlevkivituhk kaltsiumkarbonaadi toormena : protsessi teostatavus, mehhanism ja modelleerimine**

**Velts, Olga** 2011

**Ozonation of lignin aqueous solutions**

**Kamenev, Inna; Velts, Olga; Viiroja, Andres;** Häkkinen, Antti; **Kallas, Juha** Executive summaries : 5th International Conference. 10th IOA-EA3G Berlin Conference on Oxidation Technologies for Water and Wastewater Treatment : Berlin, Germany, March 30 - April 2, 2009 2009 / p. 39-40/PC223(1-8)

**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

**Reduction of CO2 emissions by carbonation of alkaline wastewater**

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

**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