

Advanced, universal, and facile gel spinning-based aerogel fibrillation : in situ fabrication of highly stretchable TPU-silica hybrid network in ambient conditions

Omranpour, Hosseinali; Hassanifard, Soran; Monfared, Ali Reza; **Omranpour Shahreza, Babak**; Salehi, Amirmehdi; Jalali, Amirjalal; Kheradmandkeymoussi, Mohamad; Rahman, Saadman Sakib; Behdinin, Kamran; Park, Chul B. Advanced composites and hybrid materials 2024 / art. 105 <https://doi.org/10.1007/s42114-024-00911-9> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Application of metal-doped organic aerogels for photodegradation of trimethoprim in water

Kask, Maarja; Koel, Mihkel; Bolobajev, Juri Aerogels processing, modeling and environmental-driven applications : book of abstracts. 2019 / p. 28

Bidirectional Mo4/3CTx MXene/graphene aerogels for tailored microwave absorption

Shamshirgar, Ali Saffar; Qin, Leiqiang; **Rojas Hernandez, Rocio Estefania**; Halim, Joseph; Fernandez, Jose F.; **Hussainova, Irina**; Rosen, Johanna ACS Applied Nano Materials 2025 / p. 1978–1990 <https://doi.org/10.1021/acsanm.4c06555>

Carbon aerogel based electrode material for EAP actuators

Kaasik, Friedrich; Torop, Janno; **Peikolainen, Anna-Liisa; Koel, Mihkel**; Aabloo, Alvo Proceedings of SPIE 2011 / p. 79760O-1 - 79760O-8 : ill

Carbon aerogel platinum-praseodymium oxide nanocatalyst for methanol oxidation in 0.5 M sulfuric acid : (digital presentation)

Priis, Alise-Valentine; Nerut, Jaak; Kasuk, Heili; **Koel, Mihkel**; Sepp, Silver; Valk, Peeter; Aruväli, Jaan; Koppel, Miriam; **Mikli, Valdek; Volobujeva, Olga**; Lust, Enn ECS transactions 2022 / art. 79 <https://doi.org/10.1149/10807.0079ecst> [Journal metrics at Scopus](#) [Article at Scopus](#)

Carbon aerogel-based solid-phase microextraction coating for the analysis of organophosphorus pesticides

Jõul, Piia; Vaher, Merike; Kuhtinskaja, Maria Analytical methods 2021 / p. 69–76 : ill <https://doi.org/10.1039/D0AY02002H> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Carbon aerogel-cellulose films and fibres with electrical conductivity and antibacterial properties against cyanobacteria

Elhi, Fred; Kisand, Veljo; Peikolainen, Anna-Liisa; **Koel, Mihkel**; Aabloo, Alvo 3rd Seminar on Aerogels : Synthesis-Properties-Applications : 22-23 September 2016, Mines ParisTech - PSL Research University, Sophia Antipolis (France) : proceedings 2016 / p. 180

Carbon aerogels from 5-methylresorcinol-formaldehyde gels = Süsinikaerogeelid 5-metüülresortsinoolist ja formaldehüüdist

Perez-Caballero, Fernando 2008 <https://digi.lib.ttu.ee/ii/?284> https://www.ester.ee/record=b2431316*est

Characterization of organosolv lignins and their application in the preparation of aerogels

Jõul, Piia; Ho, Thi Thuy Tran; Kallavus, Urve; Konist, Alar; Leiman, Kristiina; Salm, Olivia-Stella; Kulp, Maria; Koel, Mihkel; Lukk, Tiit Materials 2022 / art. 2861 <https://doi.org/10.3390/ma15082861> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cobalt- and iron-containing nitrogen-doped carbon aerogels as non-precious metal catalysts for electrochemical reduction of oxygen

Sarapuu, Ave; Samolberg, Lars; **Kreek, Kristiina; Koel, Mihkel**; Matisen, Leonard; Tammeveski, Kaido Journal of electroanalytical chemistry 2015 / p. 9-17 : ill <https://doi.org/10.1016/j.jelechem.2015.03.021> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cobalt-containing nitrogen-doped carbon aerogels as efficient electrocatalysts for the oxygen reduction reaction

Kreek, Kristiina; Sarapuu, Ave; Samolberg, Lars; Joost, Urmas; **Mikli, Valdek; Koel, Mihkel**; Tammeveski, Kaido ChemElectroChem 2015 / p. 2079-2088 : ill <https://doi.org/10.1002/celec.201500275> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparison of carbon aerogel and carbide-derived carbon as electrode materials for non-aqueous supercapacitors with high performance

Laheäär, Ann; **Peikolainen, Anna-Liisa; Koel, Mihkel**; Jänes, Alar; Lust, Enn Journal of solid state electrochemistry 2012 / p. 2717-2722 : ill <https://link.springer.com/article/10.1007/s10008-012-1660-4>

Comparison of carbon aerogel and carbide-derived carbon as electrode materials for non-aqueous supercapacitors with high performance

Laheäär, Ann; **Peikolainen, Anna-Liisa; Koel, Mihkel**; Jänes, Alar; Lust, Enn The 63rd Annual Meeting of International Society of Electrochemistry : 19.-24.08.2012, Praha 2012 / Abstract #s04-068 <https://link.springer.com/article/10.1007/s10008-012-1660-4>

Electroactive polymer actuators with carbon aerogel electrodes

Palmre, Viljar; Lust, Enn; Jänes, Alar; **Koel, Mihkel; Peikolainen, Anna-Liisa**; Torop, Janno; Johanson, Urmas; Aabloo, Alvo Journal

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](#)

Electroreduction of oxygen on cobalt- and iron-containing nitrogen-doped carbon aerogels

Sarapuu, Ave; Samolberg, Lars; **Kreek, Kristiina**; **Koel, Mihkel**; Joost, Urmas; Tammeveski, Kaido *BEC 16 : the 6th Baltic Electrochemistry Conference : Electrochemistry of Functional Interfaces and Materials : 15th-17th June 2016, Helsinki, Finland* 2016 / p. 20

Evaluation of carbon aerogel-based solid-phase extraction sorbent for the analysis of sulfur mustard degradation products in environmental water samples

Jõul, Piia; **Vaher, Merike**; **Kuhtinskaja, Maria** *Chemosphere* 2018 / p. 460-468 <https://doi.org/10.1016/j.chemosphere.2018.01.157> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Facile preparation of nitrogen and sulfur co-doped graphene-based aerogel for simultaneous removal of Cd²⁺ and organic dyes

Kong, Qiaoping; Wei, Chaohai; **Preis, Sergei**; Hu, Yun; Wang, Feng *Environmental science and pollution research* 2018 / p. 21164-21175 : ill <https://doi.org/10.1007/s11356-018-2195-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ferrocene introduced into 5-methylresorcinol-based organic aerogels

Erkhova, Ludmila V.; Presniakov, Igor A.; Afanasov, Michail I.; Lemenovskiy, Dmitry A.; Yu, Haojie; Wang, Li; **Danilson, Mati**; **Koel, Mihkel** *Polymers* 2020 / art. 1582 ; 12 p. : ill <https://doi.org/10.3390/polym12071582> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ferrocene-modified resorcinol-formaldehyde aerogels

Panova, L.V.; Lemenovskii, D.A.; Afanasov, M.I.; Krut'ko, D.P.; Popkov, M.A.; Burlutskiy, R.O.; Brusova, M.M.; **Koel, Mihkel**; Bolobajev, Yu; Talanova, V.N. *Russian Journal of Physical Chemistry B* 2023 / p. 1526-1533 : ill <https://doi.org/10.1134/S1990793123070175> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ionic liquid-carbon-polymer composite actuator based on carbon aerogel electrodes

Kaasik, Friedrich; Must, Indrek; Torop, Janno; **Peikolainen, Anna-Liisa**; Aabloo, Alvo *SustainChem2011 : International Conference on Materials and Technologies for Green Chemistry jointly with Workshop of COST Action CM0903 (UBIOCHEM-II) : September 5-9, 2011, Tallinn, Estonia : abstract book and program* 2011 / p. 112 : ill

K₂CO₃-containing composite sorbents based on a ZrO₂ aerogel for reversible CO₂ capture from ambient air

Veselovskaya, Janna; **Derevshchikov, Vladimir**; Shalygin, Anton S.; Yatsenko, Dmitry *Microporous and Mesoporous Materials* 2021 / art. 110624 <https://doi.org/10.1016/j.micromeso.2020.110624> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Low-density organic aerogels from oil shale by-product 5-methylresorcinol

Peikolainen, Anna-Liisa; **Perez-Caballero, Fernando**; **Koel, Mihkel** *Oil shale* 2008 / 3, p. 348-358 : ill https://www.researchgate.net/publication/250207343_Low-density_organic_aerogels_from_oil_shale_by-product_5-methylresorcinol

Metal-doped aerogels based on resorcinol derivatives = Resortsinooli derivaatidel põhinevad metalli sisaldavad aerogelid

Kreek, Kristiina 2016 http://www.ester.ee/record=b4619897*est

Metal-doped organic aerogels for photocatalytic degradation of trimethoprim

Bolobajev, Juri; **Kask, Maarja**; **Kreek, Kristiina**; **Kulp, Maria**; **Koel, Mihkel**; **Goi, Anna** *Chemical engineering journal* 2019 / p. 120-128 : ill <https://doi.org/10.1016/j.cej.2018.09.127> [Tehnikaülikooli teadlaste meetod aitab puhastada reovett antibiootikumijääkidest](#) <https://keskkonnatehnika.ee/reovee-puhastamine-kasutades-aerogeele/> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Microprinted carbon aerogel electrodes for sensors and actuators

Põldsalu, Inga; **Peikolainen, Anna-Liisa**; Greco, Francesco; **Kreek, Kristiina**; Aabloo, Alvo *TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu* 2014 / [1] p. : ill

Munavalgest loodi materjal, mis eemaldab veest üle 99 protsendi mikroplastist

digi.geenius.ee 2023 [Munavalgest loodi materjal, mis eemaldab veest üle 99 protsendi mikroplastist](#)

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*

Orgaanilised aerogeelid 5-metüülresortsinooli baasil

Peikolainen, Anna-Liisa; Koel, Mihkel XXXII Eesti Keemiapäevad : teaduskonverentsi teesid 2011 / lk. 77

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

Organic aerogels as precursors for the preparation of porous carbons

Perez-Caballero, Fernando; Peikolainen, Anna-Liisa; Koel, Mihkel; White, R.J.; Budarin, V.; Clark, J.H. Progress in porous media research 2009 / p. 419-459 : ill

Organic aerogels based on 5-methylresorcinol = Orgaanilised aerogeelid 5-metüülresortsinoolist

Peikolainen, Anna-Liisa 2011

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](#)

Organic and carbon aerogels doped with lanthanides as catalyst for Michael reaction

Kreek, Kristiina TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Preparation and characterization of lignin-derived carbon aerogels

Jõul, Piia; Järvik, Oliver; Lees, Heidi; Kallavus, Urve; Koel, Mihkel; Lukk, Tiit Frontiers in chemistry 2023 / art. 1326454 <https://doi.org/10.3389/fchem.2023.1326454> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 fine carbon aerogel powder

Peikolainen, Anna-Liisa; Koel, Mihkel; Aabloo, Alvo The 63rd Annual Meeting of International Society of Electrochemistry : 19.-24.08.2012, Praha 2012 <https://www.etis.ee/Portal/Publications/Display/e5e1ef5d-3700-4ba7-9c20-005efaae8d67>

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://doi.org/10.3176/oil.2014.2.08> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Preparation of nanostructured carbon materials

Perez-Caballero, Fernando; Peikolainen, Anna-Liisa; Koel, Mihkel Proceedings of the Estonian Academy of Sciences 2008 / 1, p. 48-53 : ill

Preparation of organic aerogels

Peikolainen, Anna-Liisa; Koel, Mihkel 10th European Meeting on Supercritical Fluids : Colmar, France, 2005 2005 / ? 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

Süsinikaerogeelid ja nende modifitseerimine ioonsetes vedelikes

Peikolainen, Anna-Liisa; Lõo, Simo; Koel, Mihkel XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 62

Süsinikaerogeelid kui tugimaterjalid heterogeenses katalüüsis

Perez-Caballero, Fernando; Koel, Mihkel XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 82-83

Tehnikaülikooli keemikud leiutasid uue tõhuse adsorbentmaterjali

Horisont 2017 / lk. 7 : fot http://www.ester.ee/record=b1072243*est https://artiklid.elnet.ee/record=b2819537*est

Tehnikaülikooli teadlaste meetod aitab puhastada reovett antibiootikumijääkidest [Võrguväljaanne]

novaator.err.ee 2019 / fot [Tehnikaülikooli teadlaste meetod aitab puhastada reovett antibiootikumijääkidest](#) [Metal-doped organic aerogels for](#)

The study of properties of aerogels derived from oil shale phenols

Pihl, Olga; Koel, Mihkel Abstracts book of 34th Oil Shale Symposium : October 13-17, 2014, Colorado School of Mines, Golden, Colorado 2014 / p. 55

TTÜ keemikud leiutasid uudsed aerogeelid

Pinn, Mariliis Eesti Päevaleht 2017 / Metallileht, lk. 24-25