

Bifunctional multi-metallic nitrogen-doped nanocarbon catalysts derived from 5-methylresorcinol

Kisand, Kaarel; Sarapuu, Ave; Kikas, Arvo; Kisand, Vambola; Rähn, Mihkel; Treshchalov, Alexey; Käärik, Maike; Piirsoo, Helle-Mai; Aruväli, Jaan; **Paiste, Päärn** Electrochemistry communications 2021 / art. 106932 <https://doi.org/10.1016/j.elecom.2021.106932> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bifunctional oxygen electrocatalyst based on Fe, Co, and nitrogen co-doped graphene-coated alumina nanofibers for Zn-air battery air electrode

Mooste, Marek; Ahmed, Zubair; Kapitulsis, Pavels; **Ivanov, Roman**; Treshchalov, Alexey; Piirsoo, Helle-Mai; Kikas, Arvo; Kisand, Vambola; Kukli, Kaupo; **Hussainova, Irina**; Tammeveski, Kaido Applied Surface Science 2024 / art. 160024 <https://doi.org/10.1016/j.apsusc.2024.160024> [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](#)

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](#)

Electrocatalysis of oxygen reduction on multi-walled carbon nanotube supported copper and manganese phthalocyanines in alkaline media

Kaare, Kätlin; Kruusenberg, Ivar; Merisalu, Maido; Matisen, Leonard; Sammelselg, Väino; Tammeveski, Kaido Journal of solid state electrochemistry 2016 / p. 921-929 : ill <https://doi.org/10.1007/s10008-015-2990-9>

Impact of ball-milling of carbide-derived carbons on the generation of hydrogen peroxide via electroreduction of oxygen in alkaline media

Palm, Iris; Kibena-Pöldsepp, Elo; Lilloja, Jaana; **Paiste, Päärn** Journal of electroanalytical chemistry 2020 / art. 114690 <https://doi.org/10.1016/j.jelechem.2020.114690> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Iron and cobalt containing electrospun carbon nanofibre-based cathode catalysts for anion exchange membrane fuel cell

Sokka, Andri; Mooste, Marek; Käärik, Maike; **Gudkova, Viktoria**; Kozlova, Jekaterina; Kikas, Arvo; Kisand, Vambola; Treshchalov, Alexey; Tamm, Aile; Paiste, Päärn; Aruväli, Jaan; Leis, Jaan; **Krumme, Andres**; Holdcroft, Steven; Cavaliere, Sara; Jaouen, Frederic; Tammeveski, Kaido International Journal of Hydrogen Energy 2021 / p. 31275-31287 <https://doi.org/10.1016/j.ijhydene.2021.07.025> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Iron and cobalt phthalocyanine embedded electrospun carbon nanofiber-based catalysts for anion exchange membrane fuel cell cathode

Muuli, Kaur; Sokka, Andri; Mooste, Marek; Lilloja, Jaana; **Gudkova, Viktoria**; Käärik, Maike; Otsus, Markus; Kikas, Arvo; Kisand, Vambola; Tamm, Aile; Leis, Jaan; **Krumme, Andres** Journal of Catalysis 2023 / p. 117-130 <https://doi.org/10.1016/j.jcat.2023.04.008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Iron triad-based bimetallic M-N-C nanomaterials as highly active bifunctional oxygen electrocatalysts

Alam, Mahboob; **Ping, Kefeng**; Danilson, Mati; Mikli, Valdek; Käärik, Maike; Leis, Jaan; Aruväli, Jaan; Paiste, Päärn; Rähn, Mihkel; Sammelselg, Väino; Tammeveski, Kaido; Haller, Steffen; Kramm, Ulrike Ingrid; **Starkov, Pavel**; Kongi, Nadezda ACS Applied Energy Materials 2024 / p. 4076 - 4087 <https://doi.org/10.1021/acsaeam.4c00366> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Iron, cobalt, and nickel phthalocyanines tri-doped electrospun carbon nanofibre-based catalyst for rechargeable zinc-air battery air electrode

Muuli, Kaur; Rohit Kumar; Mooste, Marek; **Gudkova, Viktoria**; Treshchalov, Alexey; Piirsoo, Helle-Mai; Kikas, Arvo; Aruväli, Jaan; Kisand, Vambola; Tamm, Aile; **Krumme, Andres**; Moni, Prabu; Wilhelm, Michaela; Tammeveski, Kaido Materials 2023 / art. 4626 <https://doi.org/10.3390/ma16134626> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Oxygen reduction on catalysts prepared by pyrolysis of electrospun styrene- acrylonitrile copolymer and multi-walled carbon nanotube composite fibres

Mooste, Marek; Kibena-Pöldsepp, Elo; Matisen, Leonard; **Vassiljeva, Viktoria**; **Krumme, Andres** Catalysis letters 2018 / p. 1815-1826 : ill <https://doi.org/10.1007/s10562-018-2392-6> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Oxygen reduction on silver nanoparticles supported on carbide-derived carbons

Linge, Jonas Mart; Erikson, Heiki; Merisalu, Maido; **Kaljuvee, Tiit** Journal of the electrochemical society 2018 / p. F1199–F1205
<https://doi.org/10.1149/2.0711814jes> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Quantifying graphitic edge exposure in graphene-based materials and its role in oxygen reduction reactions

Stamatin, Serban; **Hussainova, Irina; Ivanov, Roman**; Colavita, Paula E. ASC catalysis 2016 / p. 5215-5221 : ill
<https://doi.org/10.1021/acscatal.6b00945> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Transition metal-containing nitrogen-doped nanocarbon catalysts derived from 5-methylresorcinol for anion exchange membrane fuel cell application

Kisand, Kaarel; Sarapuu, Ave; Danilian, Dmytro; Kikas, Arvo; Kisand, Vambola; Rähn, Mihkel; Treshchalov, Alexey; Käärrik, Maike; Merisalu, Maido; **Paiste, Päärn** Journal of colloid and interface science 2021 / p. 263-274 <https://doi.org/10.1016/j.jcis.2020.09.114>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Transition-metal- and nitrogen-doped carbide-derived carbon/carbon nanotube composites as cathode catalysts for anion-exchange membrane fuel cells

Lilloja, Jaana; Kibena-Pöldsepp, Elo; Sarapuu, Ave; Douglin, John C.; Käärrik, Maike; Kozlova, Jekaterina; **Paiste, Päärn**; Kikas, Arvo; Aruväli, Jaan; Leis, Jaan ACS catalysis 2021 / p. 1920-1931 <https://doi.org/10.1021/acscatal.0c03511> [Journal metrics at Scopus](#)
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