

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 platinum-free mixed metal oxygen electrocatalysts based on naturally abundant peat

Teppor, Patrick; Jäger, Rutha; Härmas, Meelis; Aruväli, Jaan; **Volobujeva, Olga**; Koppel, Mirjam; Lust, Enn ECS Meeting Abstracts 2022 / p. 29-37 : ill <https://doi.org/10.1149/10807.0029ecst> [Journal metrics at Scopus](#) [Article at Scopus](#)

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

Prits, 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](#)

Comparison of benzimidazolediol-derived iron triad M–N–C nanomaterials as trifunctional catalysts in alkaline and acidic media : [manuscript]

Alam, Mahboob; **Ping, Kefeng**; **Danilson, Mati**; **Mikli, Valdek**; Käärik, Maike; Leis, Jaan; Aruväli, Jaan; Paiste, Päärn; Rähn, Mihkel; Sammelselg, Väino; Tammeveski, Kaido; Kramm, Ulrike; Kongi, Nadežda; **Starkov, Pavel** 2022

Fused hybrid linkers for metal–organic framework-derived bifunctional oxygen electrocatalysts

Ping, Kefeng; Braschinsky, Alan; **Alam, Mahboob**; **Bhadoria, Rohit**; **Mikli, Valdek**; **Mere, Arvo**; Aruväli, Jaan; Paiste, Päärn; Vlassov, Sergei; Kook, Mati; Rähn, Mihkel; Sammelselg, Väino; Tammeveski, Kaido; Kongi, Nadežda; **Starkov, Pavel** ACS Applied Energy Materials 2020 / p. 152–157 : ill <https://doi.org/10.1021/acsaem.9b02039> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Investigation of oxygen reduction on platinum nanoparticles deposited onto peat-derived carbon carrier

Lobjakas, Viljar; Nerut, Jaak; Kasuk, Heili; Adamson, Anu; Thomborg, Thomas; Aruväli, Jaan; Valk, Peeter; Teppor, Patrick; Koppel, Mirjam; **Mikli, Valdek**; **Volobujeva, Olga**; **Lust, Enn** ECS Meeting Abstracts 2022 / p. 49-58 : ill <https://doi.org/10.1149/10807.0049ecst> [Journal metrics at Scopus](#) [Article at Scopus](#)

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, 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>

A journey for the development of a highly active ptcec(cr3c2) catalyst: material selections, synthesis optimization and electrical measurements for methanol oxidation and oxygen reduction

Nguyen, Huy Quí Vinh; Nerut, Jaak; Kasuk, Heili; Thomborg, Thomas; Härmas, Meelis; Härmas, R.; Koppel, Miriam; Teppor, Patrick; Külaviir, Marian; Aruväli, Jaan; **Volobujeva, Olga**; Lust, Enn GSFMT Scientific Conference 2023 : Tartu, 23-24 May, 2023 : abstracts 2023 <https://fntdk.ut.ee/programm-2023/>

Multi-purpose heterogeneous catalyst material from an amorphous cobalt metal–organic framework

Ping, Kefeng; **Alam, Mahboob**; **Kahnert, Sean Ray**; **Bhadoria, Rohit**; **Mere, Arvo**; **Mikli, Valdek**; Käärik, Maike; Aruväli, Jaan; Paiste, Päärn; Kikas, Arvo; Kisand, Vambola; **Järving, Ivar**; Leis, Jaan; Kongi, Nadežda; **Starkov, Pavel** Materials advances 2021 / p. 4009-4015 <https://doi.org/10.1039/D1MA00414J> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Nickel and nitrogen-doped bifunctional ORR and HER electrocatalysts derived from CO2

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](#)

Optimisation of the ethylene glycol reduction method for the synthesis of platinum-ceria-carbon materials as catalysts for the methanol oxidation reaction

Nguyen, Huy; Nerut, Jaak; Kasuk, Heili; Härmas, Meelis; Valk, Peeter; Romann, Tavo; Koppel, Miriam; Teppor, Patrick; Aruväli, Jaan; Korjus, Ove; **Volobujeva, Olga**; Lust, Enn Journal of solid state electrochemistry 2023 / p. 313–326 : ill <https://doi.org/10.1007/s10008-022-05326-4>

Peat as a carbon source for non-platinum group metal oxygen electrocatalysts and AEMFC cathodes

Teppor, Patrick; Jäger, Rutha; Paalo, Maarja; Adamson, Anu; Härmas, Meelis; **Volobujeva, Olga**; Aruväli, Jaan; Palm, Rasmus; Lust, Enn International Journal of Hydrogen Energy 2022 / p. 16908 - 16920 <https://doi.org/10.1016/j.ijhydene.2022.03.199> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Peat-derived carbon-based non-platinum group metal type catalyst for oxygen reduction and evolution reactions

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Platinum-free oxygen electrocatalysts and alkaline fuel cell cathodes fabricated from peat

Teppor, Patrick; Jäger, Rutha; Paalo, Maarja; Härmas, Meelis; Adamson, Anu; **Volobujeva, Olga**; Aruväli, Jaan; Palm, Rasmus; Lust, Enn Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 61 I. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Shungite-derived graphene as a carbon support for bifunctional oxygen electrocatalysts

Kazimova, Nargiz; **Ping, Kefeng**; **Alam, Mahboob**; **Danilson, Mati**; Merisalu, Maido; Aruväli, Jaan; Paiste, Päärn; Käärik, Maike; **Mikli, Valdek**; Leis, Jaan; Tammeveski, Kaido; **Starkov, Pavel**; Kongi, Nadežda Journal of catalysis 2021 / p. 178–187 <https://doi.org/10.1016/j.jcat.2021.01.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Synthesis and characterization of cobalt and nitrogen co-doped peat-derived carbon catalysts for oxygen reduction in acidic media

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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.; Käärik, 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](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

О превращениях структуры гидроксидфторапатита при нагревании

Pöldme, Meeme; Aruväli, Jaan; Utsal, Kalju Тезисы докладов Всесоюзной конференции "Фосфаты-87" 1987 / с. 595 https://www.ester.ee/record=b4415763*est

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