

Advancing green hydrogen production : synthesizing and analyzing nickel and iron micro-flower shaped electrocatalysts on Ni-mesh for alkaline water electrolysis

Jäger, Rutha; Valk, Peeter; Grozovski, Vitali; **Volobujeva, Olga**; Prits, Alise-Valentine; Maide, Martin; Küngas, Rainer; Lust, Enn; Nerut, Jaak 246th ECS Meeting PRIME 2024; Honolulu, Hawaii, USA; October 6-11, 2024 <https://doi.org/10.1149/MA2024-02422814mtgabs>

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](#)

Cobalt and nitrogen co-doped peat derived carbon based catalysts for oxygen reduction

Jäger, Rutha; Teppor, Patrick; Härk, Eneli; Härmas, Meelis; Adamson, Anu; Paalo, Maarja; **Volobujeva, Olga**; Kikas, Arvo; Kochovski, Zdravko; Romann, Tavo ECS Transactions 2020 / p. 605-613 : ill <https://doi.org/10.1149/09707.0605ecst> [Journal metrics at Scopus](#) [Article at Scopus](#)

(Digital) Oxygen reduction reaction on waste tire derived carbon material and synthesized non-platinum group metal catalysts in alkaline solution

Laanemäe, Joel; Jäger, Rutha; Teppor, Patrick; **Volobujeva, Olga**; Lust, Enn ECS Meeting Abstracts 2022 / p. 39-47 : ill <https://doi.org/10.1149/10807.0039ecst> [Journal metrics at Scopus](#) [Article at Scopus](#)

Exploring different synthesis parameters for the preparation of metal-nitrogen-carbon type oxygen reduction catalysts

Teppor, Patrick; Jäger, Rutha; Härk, Eneli; Sepp, Silver; Kook, Mati; **Volobujeva, Olga**; Paiste, Päärn; Kochovski, Zdravko; Tallo, Indre; Lust, Enn Journal of the Electrochemical Society 2020 / art. 054513 <https://doi.org/10.1149/1945-7111/ab7093> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Highly active Fe-N/C oxygen electrocatalysts based on silicon carbide derived carbon

Teppor, Patrick; Jäger, Rutha; Hints, J.; **Volobujeva, Olga**; Valk, Peeter; Koppel, Miriam; Lust, Enn Polymer Electrolyte Fuel Cells & Electrolyzers 20 (PEFC & E 20) 2020 / p. 607 - 615 <https://doi.org/10.1149/09809.0607ecst> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

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

Teppor, Patrick; Jäger, Rutha; Paalo, Madis; Palm, R.; **Volobujeva, Olga**; Härk, E.; Kochovski, Z.; Romann, Tavo; Härmas, R.; Aruväli, J.; Kikas, A.; Lust, Enn GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 81 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

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

Teppor, Patrick; Jäger, Rutha; Paalo, Maarja; Palm, Rasmus; **Volobujeva, Olga**; Härk, Eneli; Kochovski, Zdravko; Romann, Tavo; Härmas, R.; Aruväli, Jaan; Kikas, Arvo; Lust, Enn Electrochemistry Communications 2020 / art. 106700 <https://doi.org/10.1016/j.elecom.2020.106700> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

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

Jäger, Rutha; Teppor, Patrick; Paalo, Maarja; Härmas, Meelis; Adamson, Anu; **Volobujeva, Olga**; Härk, Eneli; Kochovski, Zdravko; Romann, Tavo; Härmas, Riinu; Aruväli, Jaan; Kikas, Arvo; Lust, Enn Catalysts 2021 / art. 715 <https://doi.org/10.3390/catal11060715> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Unlocking the porosity of Fe-N-C catalysts using hydroxyapatite as a hard template en route to eco-friendly high-performance AEMFCs

Teppor, Patrick; Jäger, Rutha; Koppel, Miriam; **Volobujeva, Olga**; Palm, Rasmus; Månsson, Martin; Härk, Eneli; Kochovski, Zdravko; Aruväli, Jaan; Kooser, Kuno Journal of power sources 2024 / art. 233816, 11 p. : ill <https://doi.org/10.1016/j.jpowsour.2023.233816> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Waste tire derived carbon support for non-platinum-group metal catalyst materials for oxygen reduction reaction in alkaline medium

Laanemäe, Joel; Jäger, Rutha; Teppor, Patrick; **Volobujeva, Olga**; Lust, Enn ECS Meeting Abstracts 2023 / p. 2283-2283 <https://doi.org/10.1149/MA2023-01382283mtgabs>

Waste tire derived carbon support for non-platinum-group metal catalyst materials for oxygen reduction reaction in alkaline medium

Laanemäe, Joel; Jäger, Rutha; Teppor, Patrick; **Volobujeva, Olga**; Lust, Enn ECS Transactions 2023 / p. 63-72
<https://doi.org/10.1149/111105.0063ecst>