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MOBI - Electromobility Research Centre
Electrical Engineering and Power Electronics
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Employment

MOBI - Electromobility Research Centre

Vrije Universiteit Brussel
Brussels, Belgium
1 Jan 2023 → present

Scientific employee

Electrical Engineering and Power Electronics
Vrije Universiteit Brussel
Brussels, Belgium
1 Aug 2019 → 31 Dec 2025

Research Assistant

Eskisehir Technical University
Turkey
31 Aug 2001 → 31 Dec 2023

Research outputs

Advancing Cobalt-Free Lithium-Ion Batteries through Electrochemical Model Refinement and Experimental Parametrization of LNMO|Gr Cells with Gel Polymer Electrolytes

Daems, K., Román, V., de Meatza, I., Ayerbe, E., Dermenci, K. B., Van Mierlo, J. & Berecibar, M., 14 Jun 2024, In: Batteries & Supercaps. 7, 9, e202400162.

Advances in inorganic, polymer and composite electrolytes: Mechanisms of Lithium-ion transport and pathways to enhanced performance

Daems, K., Yadav, P., Dermenci, K. B., Mierlo, J. V. & Berecibar, M., Mar 2024, In: Renewable and Sustainable Energy Reviews. 191, 19 p., 114136.

A critical review of future aspects of digitalization next generation Li-ion batteries manufacturing process

Dammala, P. K., Dermenci, K. B., Kathribail, A. R., Yadav, P., Van Mierlo, J. & Berecibar, M., 25 Dec 2023, In: Journal of Energy Storage. 74, PartB, p. 1-21 21 p., 109209.

Lithium-Ion Battery Manufacturing: Industrial View on Processing Challenges, Possible Solutions and Recent Advances

Orum Aydin, A., Zajonz, F., Gunther, T., Dermenci, K. B., Berecibar, M. & Urrutia, L., Nov 2023, In: Batteries. 9, 11, p. 1-29 29 p., 555.

A Review on Digitalization Approaches for Battery Manufacturing Processes

Dermenci, K. B., Dammala, P. K., Yadav, P., Kathribail, A. R., Van Mierlo, J. & Berecibar, M., 9 Oct 2022, In: ECS Meeting Abstracts. MA2022-02, 6, p. 601-601 1 p.

Electrochemical parameterization of commercial activated carbons as anodes for high-power Li-ion batteries

Dermenci, K. B., Daems, K., Güner, Y., Turan, S., Van Mierlo, J. & Berecibar, M., Jun 2022, In: Journal of Materials Science: Materials in Electronics. 33, 16, p. 13064-13074 11 p.

Awards

EUAR40: H2020 - BAT4EVER - Building a Low-Carbon, Climate Resilient Future: Next-Generation Batteries

Berecibar, M., Van Mierlo, J., Messagie, M., Dermenci, K. B. & Lavigne Philippot, M.

1/09/20 → 29/02/24

Projects

EUAR40: H2020 - BAT4EVER - Building a Low-Carbon, Climate Resilient Future: Next-Generation Batteries

Van Mierlo, J., Messagie, M., Dermenci, K. B., Lavigne Philippot, M. & Berecibar, M.

1/09/20 → 29/02/24

EUAR141: PHOENIX : Building more reliable and performant batteries by embedding sensors and self-healing functionalities to detect degradation and repair damage via advanced Battery Management System

Berecibar, M., Dermenci, K. B. & Lavigne Philippot, M.

1/05/23 → 30/04/27

Teaching Experience

2018-2019 Metallic Materials

2018-2019 Materials Thermodynamics I & II