

Assessment of fire-retardant treatments and their impact on the fire performance and bonding properties of aspen and silver birch veneers

Alao, Percy Festus; Olusoji, Adekunle; **Kallakas, Heikko; Just, Alar; Kers, Jaan** European journal of wood and wood products 2025 / art. 66 <https://doi.org/10.1007/s00107-025-02223-1>

Characterisation of frost-retted hemp fibres for use as reinforcement in biocomposites = Külmligu kanepikiudude karakteriseerimine kasutamiseks sarrusena biokomposiitides

Alao, Percy Festus 2022 <https://doi.org/10.23658/taltech.31/2022> <https://digikogu.taltech.ee/et/Item/1cb2c061-7df8-4d8b-806a-fd53ea8820b5> https://www.ester.ee/record=b5500189*est

Development of hemp hurd particleboards from formaldehyde-free resins

Alao, Percy Festus; Tobias, Micah Onyedikachi; Kallakas, Heikko; Poltimäe, Triinu; Kers, Jaan; Goljandin, Dmitri 11th International Conference Biosystems Engineering : May 6-8, 2020 in Tartu, Estonia : book of abstracts [Võrguteavik] 2020 / p. 99 https://www.ester.ee/record=b5347289*est

Development of hemp hurd particleboards from formaldehyde-free resins

Alao, Percy Festus; Tobias, Micah Onyedikachi; Kallakas, Heikko; Poltimäe, Triinu; Kers, Jaan; Goljandin, Dmitri Agronomy research 2020 / p. 679–688 : ill <https://doi.org/10.15159/AR.20.127> [Journal metrics at Scopus](#) [Article at Scopus](#)

Effect of hemp fiber surface treatment on the moisture/water resistance and reaction to fire of reinforced PLA composites

Alao, Percy Festus; Marrot, Laetitia; Kallakas, Heikko; Just, Alar; Poltimäe, Triinu; Kers, Jaan Materials 2021 / art. 4332, 17 p. : ill <https://doi.org/10.3390/ma14154332> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of hemp fibre length on the properties of polypropylene composites

Alao, Percy Festus; Kallakas, Heikko; Poltimäe, Triinu; Kers, Jaan Agronomy research 2019 / p. 1517–1531 : ill <https://doi.org/10.15159/AR.19.146> [Journal metrics at Scopus](#) [Article at Scopus](#)

Effect of hemp fibre length on the properties of polypropylene composites [Online resource]

Alao, Percy Festus; Kallakas, Heikko; Kers, Jaan Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [4.-5. veebruar, 2019, Tartu : teesid] 2019 / 1 p.: ill <http://fntdk.ut.ee/teesid-2019/>

Fire and mechanical properties of hemp and clay boards for timber structures

Kallakas, Heikko; Liblik, Johanna; Alao, Percy Festus; Poltimäe, Triinu; Just, Alar; Kers, Jaan IOP conference series : earth and environmental science Central Europe towards Sustainable Building (CESB19) 2–4 July 2019, Prague, Czech Republic 2019 / art. 012019, 8 p. : ill <https://doi.org/10.1088/1755-1315/290/1/012019> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Impact of alkali and silane treatment on hemp/PLA composites' performance : from micro to macro scale

Alao, Percy Festus; Marrot, Laetitia; Burnard, Michael David; Lavrič, Gregor; Saarna, Mart; Kers, Jaan Polymers 2021 / art. 851, 18 p. : ill <https://doi.org/10.3390/polym13060851> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of protic ionic liquid-based flame retardant on the flammability and water sorption of alkalized hemp fiber-reinforced PLA composites

Alao, Percy Festus; Press, Raimond; Ruponen, Jussi; Mikli, Valdek; Kers, Jaan Polymers 2023 / art. 3661 <https://doi.org/10.3390/polym15183661> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Investigation of efficient alkali treatment and the effect of flame retardant on the mechanical and fire performance of frost-retted hemp fiber reinforced PLA

Alao, Percy Festus; Press, Raimond; Kallakas, Heikko; Ruponen, Jussi; Poltimäe, Triinu; Kers, Jaan Polymers 2022 / art. 2280 <https://doi.org/10.3390/polym14112280> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Natural weathering of bio-based façade materials

Alao, Percy Festus; Visnapuu, Kevin; Kallakas, Heikko; Poltimäe, Triinu; Kers, Jaan Forests 2020 / art. 642, 12 p. : ill <https://doi.org/10.3390/f11060642> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Prefab light clay-timber elements for net zero whole-life carbon buildings

Pääatalo, Juha; **Alao, Percy Festus; Rohumaa, Anti; Kers, Jaan; Liblik, Johanna; Lylykangas, Kimmo Sakari** Journal of sustainable architecture and civil engineering 2024 / p. 89-100 <https://doi.org/10.5755/j01.sace.34.1.35561>

Prefab light clay-timber elements for net zero whole-life carbon buildings : [conference paper]

Pääatalo, Juha; **Kers, Jaan; Rohumaa, Anti; Alao, Percy Festus; Liblik, Johanna; Lylykangas, Kimmo Sakari** 5th International Conference Forum Wood Building Baltic : 26-28 February 2024, Tallinn, Estonia : proceedings 2024 / p. 124-125 : ill <https://digikogu.taltech.ee/et/Item/22318c67-e0ef-42f1-88c7-34c9d9677b17> https://www.ester.ee/record=b5668645*est

Properties of frost-retted hemp fibres for the reinforcement of composites

Marrot, Laetitia; **Alao, Percy Festus; Mikli, Valdek; Kers, Jaan** Journal of natural fibers 2022 / p. 16017-16028 <https://doi.org/10.1080/15440478.2021.1904474> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Properties of retted hemp fibres for reinforcement of composites

Marrot, Laetitia; **Alao, Percy Festus**; Kallakas, Heikko; Poltimäe, Triinu; Kers, Jaan; Mikli, Valdek; Mere, Arvo GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 13 : ill <http://fmtdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

The effect of birch (*Betula pendula* Roth) face veneer thickness on the reaction to fire properties of fire-retardant treated plywood

Alao, Percy Festus; Dembovski, Karl Harold; Rohumaa, Anti; Ruponen, Jussi; Kers, Jaan Construction and building materials 2024 / art. 136242 <https://doi.org/10.1016/j.conbuildmat.2024.136242>

Utilization of Estonian cultivated hemp fibre (a byproduct of cannabidiol production), as a reinforcing material for bio-based thermoplastic composite

Alao, Percy Festus; Marrot, Laetitia; Kers, Jaan GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / O 5 https://fmtdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf