

A new high power factor single-phase diode rectifier with optimum ripple-power conversion

Sakkos, Tiiu; Sarv, Vello BEC 2006 : 2006 International Baltic Electronics Conference : Tallinn University of Technology, October 2-4, 2006, Tallinn, Estonia : proceedings of the 10th Biennial Baltic Electronics Conference 2006 / p. 229-232 : ill

A new low-distorting single-phase diode rectifier employing optimum ripple-power conversion

Sakkos, Tiiu; Sarv, Vello 5th International Conference : Electric Power Quality and Supply Reliability : August 23-26, 2006, Viimsi, Estonia : conference proceedings 2006 / p. 23-26 : ill

Advanced nanomaterials and their applications in renewable energy, Jingbo Louise Liu and Sajid Bashir : [book review]

Rauwel, Protima MRS bulletin 2016 / p. 494 <https://doi.org/10.1557/mrs.2016.127>

Analysis of design requirements and optimization possibilities of partial power converter for photovoltaic string applications in DC microgrids

Chub, Andrii; Hassanpour, Naser; Yadav, Neelesh; Jalakas, Tanel; Blinov, Andrei; Vinnikov, Dmitri IEEE Access 2024 / p. 14605-14619 <https://doi.org/10.1109/ACCESS.2024.3354375>

Application of boundary conduction mode control in galvanically isolated buck-boost converter

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii 3rd International Conference on Smart Grid and Renewable Energy (SGRE) 2022 / p. 1-6 <https://doi.org/10.1109/SGRE53517.2022.9774105>

Comparison of performance of phase-shift and asymmetrical pulse width modulation techniques for the novel galvanically isolated buck-boost dc-dc converter for photovoltaic applications

Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman; Zakis, Janis; Liivik, Elizaveta IEEE journal of emerging and selected topics in power electronics 2017 / p. 624-637 : ill <https://doi.org/10.1109/JESTPE.2016.2631628> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Converter state-space model estimation using dynamic mode decomposition

Suskis, Pavels; Zakis, Janis; Suzdalenko, Alexander; Khang, Huynh Van; Rassõlkin, Anton; Vaimann, Toomas; Pomarnacki, Raimondas 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / 5 l <https://doi.org/10.1109/ENERGYCON53164.2022.9830201>

CZTS monograin membranes for photoelectrochemical fuel production modifications for fuel production

Kouhiisfahani, Elham; Samiepour, Ali; Morawietz, Tobias; Kraut, Jürgen; Hiesgen, Renate; Meissner, Dieter 5th International Conference on Clean Electrical Power : Renewable Energy Resources Impact : Taormina (Italy), 16th-18th June 2015 2015 / p. 222-225 : ill <http://dx.doi.org/10.1109/ICCEP.2015.7177627>

CZTS monograin membranes for photoelectrochemical fuel production preparation and characterization

Samiepour, Ali; Kouhiisfahani, Elham; Galajev, Semjon; Meissner, Dieter 5th International Conference on Clean Electrical Power : Renewable Energy Resources Impact : Taormina (Italy), 16th-18th June 2015 2015 / p. 212-215 : ill <http://dx.doi.org/10.1109/ICCEP.2015.7177625>

CZTS monograin membranes for photoelectrochemical water splitting

Kois, Julia; Galajev, Semjon; Kouhiisfahani, Elham; Neubauer, Christian; Raud, Jaanika; Samiepour, Ali; Taskesen, Teoman; Meissner, Dieter BEC 16 : the 6th Baltic Electrochemistry Conference : Electrochemistry of Functional Interfaces and Materials : 15th-17th June 2016, Helsinki, Finland 2016 / p. 61 : ill

CZTS monograin membranes for photoelectrochemical water splitting

Samiepour, Ali; Kouhiisfahani, Elham; Galajev, Semjon; Morawietz, Tobias; Hiesgen, Renate; Meissner, Dieter Autumn School on Microstructural Characterization and Modelling of Thin-Film Solar Cells : Akademie Schmöckwitz, Berlin, Germany, October 9-14, 2016 2016 / [1] p. : ill

DC fast charging of electric vehicles : a review on architecture and power conversion technology

Arena, Gabriele; Emiliani, Pietro; Chub, Andrii; Vinnikov, Dmitri; de Carne, Giovanni 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227492>

Design of multiphase single-switch impedance-source converters

Chub, Andrii; Vinnikov, Dmitri; Liivik, Liisa; Jalakas, Tanel; Blinov, Andrei IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 3718-3724 : ill <https://doi.org/10.1109/IECON.2018.8591361>

Dual-source Linear Energy Prediction (LINE-P) model in the context of WSNs

Ahmed, Faisal; Tamberg, Gert; Le Moullec, Yannick; Annus, Paul Sensors 2017 / art. 1666, p. 1-22 : ill <https://doi.org/10.3390/s17071666> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Efficiency enhancement of Cu₂ZnSnS₄ monograin layer solar cells via absorber post-growth treatments

Timmo, Kristi; Dolcet Sadurni, Marc; Pilvet, Maris; Muska, Katri; Altosaar, Mare; Mikli, Valdek; Atlan, Fabien; Guc, Maxim;

Izquierdo-Roca, Victor; **Grossberg-Kuusk, Maarja; Kauk-Kuusik, Marit** Solar energy materials and solar cells 2023 / art. 112090
<https://doi.org/10.1016/j.solmat.2022.112090> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Energiasalvestid ja -salvestustehnoloogiad

Rosin, Argo; Link, Siim; Hõimoja, Hardi; Drovtar, Imre 2015 http://www.ester.ee/record=b4484414*est

Energia tootev teekatend nüüd ka Eestis

Jalakas, Tanel; Chub, Andrii; Vinnikov, Dmitri; Spalatu, Nicolae; Gudkova, Viktoria; **Krunks, Malle; Mere, Arvo; Lahi, Allan;** Lindvest, Andre Elektriala 2023 / lk. 14-16 : portr., fot https://www.ester.ee/record=b1240496*est

Energiatehnika ja maailm

Risthein, Endel 2013 http://www.ester.ee/record=b2697019*est

Evaluation of high power factor three-phase diode rectifiers with parallel-resonant input filters

Sakkos, Tiiu; Sarv, Vello The 3rd International Conference Electric Power Quality and Supply Reliability, September 4...6, 2002, Haapsalu, Estonia : proceedings 2002 / p. 76-79 : ill

Grid integration of DC buildings : standards, requirements and power converter topologies

Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Emiliani, Pietro; de Carne, Giovanni; **Vinnikov, Dmitri** IEEE open journal of power electronics 2022 / p. 798-823 <https://doi.org/10.1109/OJPEL.2022.3217741> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-efficiency quad-mode parallel PV power optimizer for DC microgrids

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri IEEE transactions on industry applications 2023 / p. 1002-1012
<https://doi.org/10.1109/TIA.2022.3208879> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hot-spots of large wave energy resources in relatively sheltered sections of the Baltic Sea coast

Kovaleva, Olga; Eelsalu, Maris; Soomere, Tarmo Renewable and sustainable energy reviews 2017 / p. 424-437 : ill
<https://doi.org/10.1016/j.rser.2017.02.033> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ilmus eestikeelne raamat energiasalvestistest

Ehitaja 2015 / lk. 34 : ill

Impact of transformer turns ratio on the power losses and efficiency of the wide range isolated buck–boost converter for photovoltaic applications

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii; Sidorov, Vadim; Liivik, Elizaveta Energies 2020 / art. 5645, 21 p
<https://doi.org/10.3390/en13215645> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Input voltage range extension methods in the series-resonant DC-DC converters

Chub, Andrii; Vinnikov, Dmitri; Lai, Jih-Sheng 2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference (COBEP/SPEC 2019) Santos, Brazil, 1-4 December 2019 2019 / p. 1493–1499
<http://toc.proceedings.com/52923webtoc.pdf>

Ionically conductive monograin membranes

Kouhiisfahani, Elham; Samiepour, Ali; Morawietz, Tobias; Handl, Michael; Simolka, Matthias; Hiesgen, Renate; **Meissner, Dieter** Physical Society of Iran Conference 2015 / p. 208-211 : ill

Kütuseelement ergutab jätkuvalt fantaasiat : [kütuseelemendist Dmitri Vinnikov ja Madis Lehtla]

Juurak, Raivo; Vinnikov, Dmitri; Lehtla, Madis Õpetajate Leht 2010 / 5. märts, lk. 7 : fot https://artiklid.elnet.ee/record=b1962215*est

Light-load efficiency improvement of galvanically isolated quasi-Z-source DC-DC converter for photovoltaic applications

Mashinchi Maheri, Hamed; Chub, Andrii; Vinnikov, Dmitri 2020 IEEE 21st Workshop on Control and Modeling for Power Electronics (COMPEL), Aalborg, Denmark, November 9-12, 2020 2020 / 6 p <https://doi.org/10.1109/COMPEL49091.2020.9265800>

Linear induction motors for multi purpose energy conversion

Laugis, Juhan; Lehtla, Tõnu PEMC'96 : 7th International Power Electronics & Motion Control Conference, Exhibition, Tutorials, Budapest, Hungary, 2-4 September, 1996 : proceedings. Volume 3 of 3 1996 / p. 3/88-3/92: ill

Low-cost photovoltaic microinverter with ultra-wide MPPT voltage range

Liivik, Elizaveta; Chub, Andrii; Kosenko, Roman; Vinnikov, Dmitri 2017 6th International Conference on Clean Electrical Power : Renewable Energy Resources Impact : Santa Margherita Ligure, 27-29 June 2017 2017 / p. 46-52 : ill
<https://doi.org/10.1109/ICCEP.2017.8004790>

MPPT performance enhancement of low-cost PV microconverters

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Liivik, Elizaveta; Blaabjerg, Frede; Kouro, Samir Solar energy 2019 / p. 156-166 : ill <https://doi.org/10.1016/j.solener.2019.05.024> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Multi purpose energy conversion in electrical drives

Laugis, Juhan; Lehtla, Tõnu; Teemets, Raivo Stockholm Power Tech, June 18-22, 1995 : International Symposium on Electric Power Engineering. Electrical machines and drives 1995 / p. 420-425: ill

Multiphase galvanically isolated impedance-source DC-DC converter for residential renewable energy applications

Vinnikov, Dmitri; Chub, Andrii; Liivik, Elizaveta 2017 IEEE International Symposium on Industrial Electronics (ISIE) : Edinburgh International Conference Centre, Edinburgh, Scotland, United Kingdom, 19-21 June, 2017 : proceedings 2017 / p. 1775-1780 : ill
<https://doi.org/10.1109/ISIE.2017.8001517>

Multiphase quasi-z-source DC-DC converters for residential distributed generation systems

Chub, Andrii; Vinnikov, Dmitri; Liivik, Elizaveta; Jalakas, Tanel IEEE transactions on industrial electronics 2018 / p. 8361-8371 : ill
<https://doi.org/10.1109/TIE.2018.2801860> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A New Single Source Five-Level Common Ground Switched Capacitor based Inverter

Hemmati Shahsavari, Tala; Husev, Oleksandr; Babaei, Ebrahim; Sabahi, Mehran; Vinnikov, Dmitri; Khoshkbar-Sadigh, Arash 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 <https://doi.org/10.1109/ENERGYCON53164.2022.9830422>

Novel isolated power conditioning unit for micro wind turbine applications

Chub, Andrii; Husev, Oleksandr; Blinov, Andrei; Vinnikov, Dmitri IEEE transactions on industrial electronics 2017 / p. 5984-5993 : ill
<https://doi.org/10.1109/TIE.2016.2645890> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Partial buck-boost resonant power converter for residential PV applications

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / 5 l. <https://doi.org/10.1109/ENERGYCON53164.2022.9830394>

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; Härmä, 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](#)

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; Härmä, 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>

Peculiarities of multilevel power electronic converters for interfacing battery energy storages with AC loads

Bubovich, Alexander; Vorobyov, Maxim; Blinov, Andrei; Peftitsis, Dimosthenis IEEE 8th Workshop on Advances in Information, Electronic and Electrical Engineering (AIEEE) 2021 / p. 1-4 <https://doi.org/10.1109/AIEEE51419.2021.9435798>

Performance evaluation of step-up/down current-source partial power converters for PV applications

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUON): conference proceedings 2022 / 5 p
<https://doi.org/10.1109/RTUON56726.2022.9978890>

Power converter interfaces for electrochemical energy storage systems - a review

Fernao Pires, Vitor; Romero-Cadaval, Enrique; Vinnikov, Dmitri; Roasto, Indrek; Martins, Joao Energy conversion and management 2014 / p. 453-475 : ill
<https://doi.org/10.1016/j.enconman.2014.05.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A review of hybrid converter topologies

Afshari, Hossein; Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri Energies 2022 / art. 9341
<https://doi.org/10.3390/en15249341> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sb2S3 solar cells with a cost-effective and dopant-free fluorene-based enamine as a hole transport material

Juneja, Nimish; Mandati, Sreekanth; Katerski, Atanas; Spalatu, Nicolae; Daskeviciute-Geguziene, Sarune; Vembris, Aivars; Karazhanov, Smagul; Getautis, Vytutas; Krunks, Malle; Oja Acik, Ilona Sustainable Energy & Fuels 2022 / p. 3220-3229
<https://doi.org/10.1039/D2SE00356B> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Single-phase qZS-based PV inverter with integrated battery storage for distributed energy generation

Husev, Oleksandr; Makovenko, Elena; Vinnikov, Dmitri; Jalakas, Tanel 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 508-513 : ill
<https://doi.org/10.1109/CPE.2018.8372570>

Single-switch impedance-source galvanically isolated DC-DC converter with combined energy transfer

Chub, Andrii; Vinnikov, Dmitri; Babaei, Ebrahim; Liivik, Elizaveta; Korkh, Oleksandr; Kouro, Samir 59th Annual International

Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTU CON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTU CON.2018.8659851>

Sissejuhatus energiatehnikasse

Risthein, Endel 2007 http://www.ester.ee/record=b2290665*est

Solar optiverter - a novel hybrid approach to the photovoltaic module level power electronics

Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman; Korkh, Oleksandr IEEE transactions on industrial electronics 2019 / p. 3869-3880 <https://doi.org/10.1109/TIE.2018.2850036> Tehnikaülikooli seade muudab päikesepaneelid märgatavalt tootlikumaks [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Step-up DC/DC converters with cascaded quasi-Z-source network

Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard; Adamowicz, Marek IEEE transactions on industrial electronics 2012 / p. 3727-3736 : ill <https://ieeexplore.ieee.org/document/6096410>

Zero-redundancy fault-tolerant resonant dual active bridge converter for more electric aircrafts

Chub, Andrii; Buticchi, Giampaolo; Sidorov, Vadim; Vinnikov, Dmitri 2022 IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) 2022 / 6 l. <https://doi.org/10.1109/PEDG54999.2022.9923154>

Tallinna tehnikaülikooli energiaruuter loob majadele omaette elektrivõrgu

Eesti Ekspress 2018 / lk. [23] <https://ekspress.delfi.ee/artikkel/84721243/tallinna-tehnikaulikooli-energiaruuter-loob-majadele-omaette-elektrivorgu>

TalTechi energeetikutel valmis kodudes taastuenergia kasutamiseks uudseid lahendusi

Blinov, Andrei; Roasto, Indrek Elektriala 2018 / lk. 30 : fot http://www.ester.ee/record=b1240496*est

TalTechi jõuelektronikateadlaste artikkel sai maineka tunnustuse

Mente et Manu 2018 / lk. 6 http://www.ester.ee/record=b1242496*est <http://dea.digar.ee/publication/AKmenteetmanu> https://www.ttu.ee/public/m/mente-et-manu/MM_05_2018/mobile/index.html https://artiklid.elnet.ee/record=b2868853*est

TalTechi teadlaste seade tõustab päikesepaneele

Imeline Teadus 2019 / lk. 21 : fot https://www.ester.ee/record=b2747925*est

TEST I Kas sina tead, kuidas hinnata elektrisüsteemi seisundit ja miks rekonstrueeritakse tramme? Pane end proovile! [Võrguväljaanne]

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postimees.ee 2022 "[Kas sina tead, kuidas hinnata elektrisüsteemi seisundit ja miks rekonstrueeritakse tramme? Pane end proovile!](#)"

TTÜ energeetikud arendavad Eesti esimest energiasalvestit [Võrguväljaanne]

Lauri, Vahur novaator.err.ee 2019 / video [TTÜ energeetikud arendavad Eesti esimest energiasalvestit](#)

Utility-scale energy storage systems : a comprehensive review of their applications, challenges, and future directions

Luo, Wensheng; Stynski, Sebastian; Chub, Andrii; Franquelo, Leopoldo G.; Malinowski, Mariusz; Vinnikov, Dmitri IEEE industrial electronics magazine 2021 / p. 17-27 <https://doi.org/10.1109/MIE.2020.3026169> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Uudne tehnoloogia päikeseenergiahoonetele

Chub, Andrii Ehitaja 2022 / lk. 22-23 : fot https://www.ester.ee/record=b1072123*est <https://taltech.ee/uudised/jouelektroonika-teadustoo-viljad-edendavad-paikeseenergia-tehnoloogiat>

Versatile power electronic building block for residential DC microgrids

Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman; Liivik, Elizaveta 2018 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM 2018) : Amalfi, Italy, 20-22 June 2018 2018 / p. 735-741 : ill <https://doi.org/10.1109/SPEEDAM.2018.8445317>

Wide input voltage range photovoltaic microconverter with reconfigurable buck-boost switching stage

Chub, Andrii; Vinnikov, Dmitri; Kosenko, Roman; Liivik, Elizaveta IEEE transactions on industrial electronics 2017 / p. 5974-5983 : ill <https://doi.org/10.1109/TIE.2016.2645891> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Введение в энерготехнику

Risthein, Endel 2008 https://www.ester.ee/record=b2412915*est