Self-sufficient humidity to electricity Innovative Radiant Adsorption System Toward Net Zero Energy Buildings

Resultados

Información del proyecto

SSHARE

Identificador del acuerdo de subvención:
871284

Sitio web del proyecto

DOI
10.3030/871284

Proyecto cerrado

Fecha de la firma de la CE
23 Octubre 2019

Fecha de inicio
1 Noviembre 2019

Fecha de finalización
31 Octubre 2023

Financiado con arreglo a
EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions

Coste total
€ 1 426 000,00

Aportación de la UE
€ 1 426 000,00

Coordinado por
COFAC COOPERATIVA DE FORMACAO E ANIMACAO CULTURAL CRL
Portugal

Este proyecto figura en...

CORDIS proporciona enlaces a los documentos públicos y las publicaciones de los proyectos de los programas marco HORIZONTE.

Los enlaces a los documentos y las publicaciones de los proyectos del Séptimo Programa Marco, así como los enlaces a algunos tipos de resultados específicos, como conjuntos de datos y «software», se obtienen dinámicamente de OpenAIRE.

Resultado final

Documentos, informes (5)

Protocol on Electrical and Thermal Properties of Active Coating, YSZ- and CaSiO3-based Porous Block structures.

Protocol on Electrical and Thermal Properties of Active Coating YSZ and CaSiO3based Porous Block structures will be delivered

Dissemination and Communication Plans

Dissemination and Communication Plans will be delivered. Including project logo, website booklets and flyers.

Protocol on working testing devices assembly and testing

Protocol on working testing devices assembly and testing will be delivered

Recommendations for practical use of CaSiO3 materials for Humidity to Electricity Conversion

Recommendations for practical use of CaSiO3 materials for Humidity to Electricity Conversion will be delivered

1st Progress Report

1st Progress Report will be delivered

Open Research Data Pilot (1)

Data Management plan

Data Management plan will be delivered

Otro (2)

Project Conference

Mid-term meeting

Mid-term meeting with REA

Demostradores, pilotos, prototipos (1)

Prototype fabrication

SSHARE device prototype will be delivered including technical documentation and technological requirements for device production

Publicaciones

Artículos arbitrados (24)

Current transfer processes in a hydrated layer localized in a two-layer porous structure of nanosized ZrO2

Autores: Yuriy Yu. Bacherikov, Petro M. Lytvyn, Sergii V. Mamykin, Olga B. Okhrimenko, Valentyna V. Ponomarenko, Serhiy V. Malyuta, Aleksandr S. Doroshkevich, Igor A. Danilenko, Oksana A. Gorban, Andrii Gilchuk, Yana Baiova & Andriy Lyubchyk
Publicado en: Journal of Materials Science: Materials in Electronics, Edición 09574522, 2022, ISSN 0957-4522
Editor: Kluwer Academic Publishers
DOI: 10.1007/s10854-021-07481-2

Weak Localization in Polycrystalline Tin Dioxide Films

Autores: Vitaly Ksenevich, Vladimir Dorosinets, Dzmitry Adamchuk, Jan Macutkevic, Juras Banys
Publicado en: Materials, Edición 13/23, 2020, Página(s) 5415, ISSN 1996-1944
Editor: MDPI Open Access Publishing
DOI: 10.3390/ma13235415

Hydrated zirconia nanoparticles as media for electrical charge accumulation

Autores: Artem Shylo, Igor Danilenko, Oksana Gorban, Oleksandr Doroshkevich, Igor Nosolev, Tetyana Konstantinova & Andriy Lyubchyk
Publicado en: Journal of Nanoparticle Research, Edición 13880764, 2022, ISSN 1388-0764
Editor: Kluwer Academic Publishers
DOI: 10.1007/s11051-022-05407-5

Online Monitoring of Sensor Calibration Status to Support Condition-Based Maintenance

Autores: Alexandre Martins; Inácio Fonseca; José Torres Farinha; João Reis; António J. Marques Cardoso
Publicado en: Pages: 2402, Edición 1, 2023, ISSN 1424-8220
Editor: Multidisciplinary Digital Publishing Institute (MDPI)
DOI: 10.3390/s23052402

The variance of the electronic structure in the near-surface regions of chemically homogeneous nanoparticles of oxide materials and its role in the conversion of chemisorption energy of water on the powder of zirconium dioxide

Autores: B.R. Kutlimurotov; A.S. Doroshkevich; A.I. Lyubchyk; B.L. Oksengendler; N.N. Nikiforova; M. Adilov; R.Kh. Ashurov; S.X. Suleymanov; A.S. Zakharova; E.A. Gridina; C. Mita
Publicado en: Crossref, Edición 4, 2022, ISSN 1025-8817
Editor: Academy of Sciences of the Republic of Uzbekistan
DOI: 10.52304/.v24i4.378

The model of potential barrier appearing in a hydrolayer localized in a two-layer porous nanostructure

Autores: Yu.Yu. Bacherikov, O.B. Okhrimenko, V.Yu. Goroneskul, V.V. Ponomarenko, A.V. Gilchuk, S.K. Tytov, A.I. Lyubchyk
Publicado en: Semiconductor Physics, Quantum Electronics and Optoelectronics, Edición 24/3, 2021, Página(s) 288-294, ISSN 1560-8034
Editor: V. Lashkaryov Institute of Semiconductor Physics of National Academy of Sciences of Ukraine
DOI: 10.15407/spqeo24.03.288

Thermal ionization energy of hydrogen-like impurities in semiconductor materials

Autores: Nikolai A. Poklonski, Sergey A. Vyrko, Aliaksandr N. Dzeraviaha
Publicado en: Journal of the Belarusian State University. Physics, Edición 2, 2020, Página(s) 28-41, ISSN 2617-3999
Editor: Belarusian State University
DOI: 10.33581/2520-2243-2020-2-28-41

Influence of hafnium oxide on the structure and properties of powders and ceramics of the YSZ–HfO2 composition

Autores: D.R. Belichko, T.E. Konstantinova, A.V. Maletsky, G.K. Volkova, A.S. Doroshkevich, M.V. Lakusta, M. Kulik, A.A. Tatarinova, D. Mardare, C. Mita, N. Cornei
Publicado en: Ceramics International, 2020, ISSN 0272-8842
Editor: Pergamon Press Ltd.
DOI: 10.1016/j.ceramint.2020.09.151

Electric Energy Storage Effect in Hydrated ZrO2-Nanostructured System

Autores: Alexander S. Doroshkevich,Andriy I. Lyubchyk*,Boris L. Oksengendler,Tatyana Yu. Zelenyak,Nurbol O. Appazov,Andriy K. Kirillov,Tatyana A. Vasilenko, Alisa A. Tatarinova, Oksana O. Gorban,Viktor I. Bodnarchuk, Nadejda N. Nikiforova, Maria Balasoiu, Diana M. Mardare, Carmen Mita, Dorin Luca, Matlab N. Mirzayev, Asif A. Nabiyev, Evgeni P. Popov, Anca Stanculescu, Tatyana E. Konstantinova 1 and Yulia V
Publicado en: Nanomaterials, 2021, ISSN 2079-4991
Editor: MDPI
DOI: 10.3390/nano12111783

Impact of chemical and physical modification of zirconia on structure, surface state, and catalytic activity in oxidation of α-tetralol

Autores: Oksana Gorban, Igor Danilenko, Igor Nosolev, Emir Abdullayev, Akhmed Islamov, Konstantin Gavrilenko, Aleksandr Doroshkevich, Oleksiy Shvets & Sergey Kolotilov
Publicado en: Journal of Nanoparticle Research, Edición 13880764, 2022, ISSN 1388-0764
Editor: Kluwer Academic Publishers
DOI: 10.1007/s11051-022-05566-5

Characterization of adsorption properties inherent to zirconia dioxide for different positions of yttrium in the ZrO2–Y2O3 lattice

Autores: Lyubchyk, Svitlana I.; Lyubchyk, Sergiy B.; Lyubchyk, Andriy I.
Publicado en: Semiconductor physics quantum electronics & optoelectronics, Edición 1, 2022, ISSN 1560-8034
Editor: National Academy of Sciences of Ukraine
DOI: 10.15407/spqeo25.04.362

On the Possibility of Designing an Advanced Sensor with Particle Sizing Using Dynamic Light Scattering Time Series Spectral Entropy and Artificial Neural Network

Autores: Dan Chicea, Aleksandr S. Doroshkevich, Andriy Lyubchy
Publicado en: Sensors, Edición 14248220, 2022, ISSN 1424-8220
Editor: Multidisciplinary Digital Publishing Institute (MDPI)
DOI: 10.3390/s22103871

Low-Frequency Admittance of Capacitor with Working Substance “Insulator–Partially Disordered Semiconductor– Insulator”

Autores: N. A. Poklonski, I. I. Anikeev, S. A. Vyrko
Publicado en: Devices and Methods of Measurements, Edición 12/3, 2021, Página(s) 202-210, ISSN 2414-0473
Editor: Belarusian National Technical University
DOI: 10.21122/2220-9506-2021-12-3-202-210

Anticipating Future Behavior of an Industrial Press Using LSTM Networks

Autores: Balduíno César Mateus; Mateus Mendes; José Torres Farinha; Antonio J. Marques Cardoso
Publicado en: Volume 11, Edición 6, 2021, ISSN 2076-3417
Editor: MDPI
DOI: 10.3390/app11136101

Reversible Martensitic Phase Transition in Yttrium-Stabilized ZrO2 Nanopowders by Adsorption of Water

Autores: Elmar B. Asgerov; Anatoly I. Beskrovnyy; Nelya V. Doroshkevich; Carmen Mita; Diana M. Mardare; Dan Chicea; Mihaela D. Lazar; Alisa A. Tatarinova; Sergiy I. Lyubchyk; Svitlana B. Lyubchyk; Andriy I. Lyubchyk; Alexander S. Doroshkevich
Publicado en: Nanomaterials; Volume 12; Edición 3; Pages: 435, Edición 3, 2022, ISSN 2079-4991
Editor: MDPI
DOI: 10.3390/nano12030435

The Rectifying Contact of Hydrated Different Size YSZ Nanoparticles for Advanced Electronics

Autores: Alexander S. Doroshkevich; Anna S. Zakharova; Boris L. Oksengendler; Andriy I. Lyubchyk; Sergiy I. Lyubchyk; Svitlana B. Lyubchyk; Alisa A. Tatarinova; Andriy K. Kirillov; Tatyana A. Vasilenko; Oksana O. Gorban; Viktor I. Bodnarchuk; Nadejda N. Nikiforova; Elena A. Zakharova; Maria Balasoiu; Diana M. Mardare; Carmen Mita; Anca Stanculescu; Matlab N. Mirzayev; Asif A. Nabiyev; Evgeni P. Popov; Le H
Publicado en: Nanomaterials; Volume 12; Edición 24; Pages: 4493, Edición 1, 2022, ISSN 2079-4991
Editor: MDPI
DOI: 10.3390/nano12244493

Molecular Adsorption of H2O on TiO2 and TiO2:Y Surfaces

Autores: D. D. Nematov; K. T. Kholmurodov; M. A. Husenzoda; A. Lyubchyk; A. S. Burhonzoda
Publicado en: Crossref, Edición 1, 2022, ISSN 2785-2997
Editor: Reggio Calabria: EUHERA
DOI: 10.28991/hef-2022-03-02-07

Spin-Phonon Magnetic Resonance of Conduction Electrons in Indium Antimonide Crystals

Autores: N. A. Poklonski, A. N. Dzeraviaha, S. A. Vyrko
Publicado en: Journal of Applied Spectroscopy, Edición 87/4, 2020, Página(s) 652-661, ISSN 0021-9037
Editor: Kluwer Academic Publishers
DOI: 10.1007/s10812-020-01050-x

Electrophysical properties of hydrated porous dispersed system based on zirconia nanopowders

Autores: Artem Shylo, Aleksandr Doroshkevich, Andriy Lyubchyk, Yuri Bacherikov, Maria Balasoiu, Tetyana Konstantinova
Publicado en: Applied Nanoscience, 2020, ISSN 2190-5509
Editor: Springer
DOI: 10.1007/s13204-020-01471-2

Humidity to electricity converter based on oxide nanoparticles

Autores: Igor Danilenko, Oksana Gorban, Artem Shylo, Galina Volkova, Pavlo Yaremov, Tetyana Konstantinova, Oleksandr Doroshkevych & Andriy Lyubchyk
Publicado en: Journal of Materials Science, Edición 00222461, 2022, ISSN 0022-2461
Editor: Kluwer Academic Publishers
DOI: 10.1007/s10853-021-06657-9

Investigation of Structural and Optoelectronic Properties of N-Doped Hexagonal Phases of TiO2 (TiO2-xNx) Nanoparticles with DFT Realization: OPTIMIZATION of the Band Gap and Optical Properties for Visible-Light Absorption and Photovoltaic Applications

Autores: 1. Nematov D. D., Khusenzoda M.A., Burhonzoda A.C., Kholmurodov Kh.T., Lyubchyk A., Medhat I.
Publicado en: Biointerface Research in Applied Chemistry, Edición 12 10.33263/BRIAC12 https://biointerfaceresearch.com/?page_id=8072/3, 2021, Página(s) 3836-3848, ISSN 2069-5837
Editor: Biointerface research in applied chemistry.
DOI: 10.33263/briac123.38363848

Maintenance Prediction through Sensing Using Hidden Markov Models—A Case Study

Autores: Alexandre Martins, Inacio Fonseca, Jose Torres Farinha Joro Reis, Antynio Marques Cardoso
Publicado en: Applied Sciences, Edición 11(16), 2021, ISSN 2076-3417

Editor: MDPI
DOI: 10.5281/zenodo.5888253

Structure formation and properties of corundum ceramics based on metastable aluminium oxide doped with stabilized zirconium dioxide
Autores: A.V. Maletsky, D.R. Belichko, T.E. Konstantinova, G.K. Volkova, A.S. Doroshkevich, A.I. Lyubchyk, V.V. Burkhovetskiy, V.A. Aleksandrov, D. Mardare, C. Mita, D. Chicea, L.H. Khiem
Publicado en: Ceramics International, Edición 47/14, 2021, Página(s) 19489-19495, ISSN 0272-8842
Editor: Pergamon Press Ltd.
DOI: 10.1016/j.ceramint.2021.03.286

Composite Films of HDPE with SiO2 and ZrO2 Nanoparticles: The Structure and Interfacial Effects
Autores: Asif A. Nabiyev; Andrzej Olejniczak; Akhmed Islamov; Andrzej Pawlukojć; Oleksandr I. Ivankov; Maria Balasoiu; Alexander Zhigunov; Musa A. Nuriyev; Fovzi M. Guliyev; D V Soloviov; Aidos K. Azhibekov; A. S. Doroshkevich; Olga Yu. Ivanshina; Alexander I. Kuklin
Publicado en: Volume 11, Edición 1, 2021, ISSN 2079-4991
Editor: MDPI
DOI: 10.3390/nano11102673

Actas de congresos (3)

Linear magnetoresistance in graphene formed on silicon carbide: two dimensional magnetotransport
Autores: N.A. Poklonski, V.A. Samuilov
Publicado en: Materials and Structures of Modern Electronics: Proc. of IXth Int. Sci. Conf., Minsk, 14–16 Oct., 2020 / Ed.: V.B. Odzhaev (ed.-in-chief) [et al.], 2020, Página(s) 243–248, ISBN 978-985-881-073-3
Editor: Belarusian State University
DOI: 10.5281/zenodo.5708126

Electrical conductivity of nanocrystalline nonstoichiometric tin dioxide films near the metal-insulator transition
Autores: V. Dorosinets, V.K. Ksenevich, D.V. Adamchuk
Publicado en: Actual Problems of Solid State Physics: Proc. of IX Int. Sci. Conf., Minsk, November 22–26, 2021: In 2 books / Ed. board: V.M. Fedosyuk (chairman) [et al.]. – Minsk: Publisher A. Varaksin, 2021. – Book 2, 2021, Página(s) 40–44, ISBN 978-985-7265-78-7
Editor: Publisher A. Varaksin
DOI: 10.5281/zenodo.5716197

Key Performance Indicators in Humanitarian Logistics: a Systematic Literature Review 2010-2020

Autores: Anderson Nunes da Silva, Marcele Elisa Fontana, Raphaela Vidal, Pedro Carmona Marques
Publicado en: IC-AMME & LSCM 2021: Joint conference of IC-AMME & LSCM 2021Surabaya, Indonesia, October 1-2, 2021, 2021, Página(s) 1-8
Editor: AIP Conference Proceedings
DOI: 10.5281/zenodo.5888144

Artículos no arbitrados (1)

The Influence of the Dispersing Agent Nature on the Interaction of DNA Nucleotides with the Surface of YSZ Nanoparticles and the Homogeneity of Lyophilites Based on Them

Autores: Aleksander S. Doroshkevich, Viktor S. Doroshkevich , Tatyana Yu. Zelenyak , Nelya V. Doroshkevich, Andriy I. Lyubchyk , Sergiy I. Lyubchyk , Svitlana B. Lyubchyk , Alisa A. Tatarinova , Anca Stanculescu, Dan Chicea, Carmen Mita , Nicoleta Cornei , Diana Mardare , Boris L. Oksengendler , Nadejda N. Nikiforova , Matlab N. Mirzayev, Evgeni P. Popov , Aleksandr A. Donkov , Vesna Teofilović, Bozena Ja
Publicado en: SSRN Electronic Journal, 2022, ISSN 1556-5068
Editor: Elsevier
DOI: 10.2139/ssrn.4252158

Otro (1)

The Rectifying Contact of Hydrated Multi-Dimensional YSZ Nanoparticles for Advanced Electronics

Autores: Alexander Doroshkevich, Anna Zakharova, Boris Oksengendler , Andriy Lyubchyk , Alisa Tatarinova, Andriy Kirillov , Tatyana Vasilenko , Oksana Gorban , Viktor Bodnarchuk , Nadejda Nikiforova , Elena Zakharova , Maria Balasoiu , Diana Mardare , Carmen Mita , Anca Stanculescu, Matlab Mirzayev , Asif Nabiyev, Evgeni Popov , Le Hong Khiem , Aleksandr Donkov , Tatyana Konstantinova
Publicado en: Preprints, 2021
Editor: MDPI
DOI: 10.20944/preprints202206.0075.v1

Conjuntos de datos

Conjuntos de datos vía OpenAIRE (1)

Synthesis and magnetic properties of Fe, Ni, Co-doped tin oxide films
Autores: Ksenevich, V.; Dorosinets, V.; Adamchuk, D.
Publicado en: Zenodo

Otros productos de investigación

Otros productos de investigación a través de OpenAire (4)

Dielectric properties yttria-stabilized zirconia dioxide
Autores: Adamchuk, D.V.; Ksenevich, V.K.; Poklonski, N.A.; Lyubchyk, A.; Macutkevic, J.; Banys, J.
Publicado en: Zenodo

Electrical conductivity of nanocrystalline nonstoichiometric tin dioxide films near the metal-insulator transition
Autores: Dorosinets, V.; Ksenevich, V.K.; Adamchuk, D.V.
Publicado en: Zenodo

Key Performance Indicators in Humanitarian Logistics: a Systematic Literature Review 2010-2020
Autores: Da Silva, Anderson Nunes; Marcele Elisa Fontana; Vida, Raphaela; Marques, Pedro Carmona
Publicado en: Zenodo

Linear magnetoresistance in graphene formed on silicon carbide: two dimensional magnetotransport
Autores: Poklonski, N.A.; Samuilov, V.A.
Publicado en: Zenodo

Última actualización: 26 Junio 2024

Permalink: https://cordis.europa.eu/project/id/871284/results/es