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## Highest Efficiency of Perovskite Structure Solar Cells

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## Experimental investigation of a novel heat exchanger for optimizing heat transfer performance using Al<sub>2</sub>O<sub>3</sub>-water nanofluids

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Aklo, N.J., Turkey Rashid, M.T.

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Aklo, N.J., Turkey Rashid, M.T.

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## Study of the MPPT for PV Systems Using Simulation in MATLAB/Simulink

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## A review of the characters of nanofluids used in the cooling of a photovoltaic - thermal collector

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## Feasibility investigation of a novel geothermal-based integrated energy conversion system: Modified specific exergy costing (M-SPECO) method and optimization

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## Determining of reservoir fluids properties using PVTP simulation software- a case study of buzurgan oilfield

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*International Journal of Electrical and Computer Engineering*, 2021

Article • *Open access*

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Mohammed, A.Q., Al-Anbarri, K., Hannun, R.M.

*Journal of Engineering and Sustainable Development*, 2021

Article

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Cao, Y., A Dhahad, H.A., Togun, H., ...Farouk, N., Farhang, B.

*International Journal of Hydrogen Energy*, 2021

Article

## A novel hybrid biomass-solar driven triple combined power cycle integrated with hydrogen production: Multi-objective optimization based on power cost and CO<sub>2</sub> emission

Cao, Y., A Dhahad, H.A., Togun, H., ...Farouk, N., Farhang, B.

*Energy Conversion and Management*, 2021

Conference Paper • *Open access*

## Quantum Dotes of Perovskites Solar Cells based on ZnSe as ETM

Tareq, D.E., Abdulmuhsin, S.M., Waried, H.H.

*Journal of Physics: Conference Series*, 2021

Conference Paper • *Open access*

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*Journal of Physics: Conference Series*, 2021

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## Combined electro-thermal model for PV panels

Abdulrazzaq, A.K., Bognár, G., Plesz, B.

*Pollack Periodica*, 2021

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*Journal of Physics: Conference Series*, 2021

Article

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Hasan, M.I., Jabbar, E.K.

*Energy*, 2021

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Nanocellulose for Sustainable Future Applications

Al-Jawhari, I.F.H.

*Handbook of Nanomaterials and Nanocomposites for Energy and Environmental Applications: Volumes 1-4*, 2021

Book Chapter

Application of nanoscience in alternative energies

Al-Jawhari, I.F.H.

*Nano Tools and Devices for Enhanced Renewable Energy*, 2021

Article

Developing a thermal design for steam power plants by using concentrating solar power technologies for a clean environment

Abd Ali, L.M., Ali, Q.A., Klačková, I., ...Yakimovich, B.A., Kuvshinov, V.V.

*Acta Montanistica Slovaca*, 2021

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Effect of the Number of Nozzles of Swirl Flow Generator Utilized in Flat Plate Solar Collector: An Entropic Analysis

Cao, Y., Ayed, H., Abdulrazzaq, T., ...Bariq, A., Bouallegue, B.

*International Journal of Photoenergy*, 2021

Conference Paper

Flow characterization of an industrial size francis turbine operating at ultra-low load the effect of water injection

Altimemy, M., Caspar, J., Watheq, S., Öztekin, A.

*American Society of Mechanical Engineers, Fluids Engineering Division (Publication) FEDSM*, 2021

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Performance of kaplan turbine operating at design condition

Altimemy, M., Watheq, S., Caspar, J., Öztekin, A.

**American Society of Mechanical Engineers, Fluids Engineering Division (Publication) FEDSM, 2021**

Book Chapter

**Multi-objective NPO Minimizing the Total Cost and CO<sub>2</sub> Emissions for a Stand-Alone Hybrid Energy System**

Mohammed, A.Q., Al-Anbarri, K., Hannun, R.M.

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**IOP Conference Series: Materials Science and Engineering, 2020**

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**IOP Conference Series: Materials Science and Engineering, 2020**

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***IOP Conference Series: Materials Science and Engineering, 2020***

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*2nd International Conference on Electrical, Communication and Computer Engineering, ICECCE 2020*, 2020

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*Processes*, 2020

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Abudi, Z.N., Hu, Z., Abood, A.R., Liu, D., Gao, A.

*Waste and Biomass Valorization*, 2020

Conference Paper • *Open access*

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*Periodica polytechnica Electrical engineering and computer science*, 2020

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*Solar Energy*, 2020

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Altimemy, M., Caspar, J., Mohammed Ali, S.W., Öztekin, A.

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Altimemy, M., Caspar, J., Öztekin, A.

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Altimemy, M., Caspar, J., Öztekin, A.

***American Society of Mechanical Engineers, Fluids Engineering Division (Publication) FEDSM***, 2020

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***Energy Engineering: Journal of the Association of Energy Engineering***, 2020

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## Investigation of the losses of photovoltaic solar systems during operation under partial shading

Kuznetsov, P.N., Abd Ali, L.M., Kuvshinov, V.V., ...Mohammed, H.J., Al Barmani, A.G.

***Journal of Applied Engineering Science***, 2020

Article

## A study of the potential of using the Earth to air heat exchanger for cooling and heating of residential buildings in Iraq

Hasan, M.I., Noori, S.W.

***Heat Transfer - Asian Research***, 2019

Article • *Open access*



## Mitigation of flow-induced pressure fluctuations in a Francis turbine operating at the design and partial load regimes—LES simulations

Altımey, M., Attiya, B., Daskiran, C., Liu, I.H., Öztekin, A.

*International Journal of Heat and Fluid Flow*, 2019

Article • *Open access*

## Third harmonic injection by MMC-swiss rectifier for offshore HVDC wind turbine applications

Al-Khayyat, A.S., Hameed, M.J., Mnati, A.M.

*Periodicals of Engineering and Natural Sciences*, 2019

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## Parametric study on the performance of the earth-to-air heat exchanger for cooling and heating applications

Hasan, M.I., Noori, S.W., Shkarah, A.J.

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## Theoretical (DFT and TDDFT) insights into the effect of polycyclic aromatic hydrocarbons on Monascus pigments and its implication as a photosensitizer for dye-sensitized solar cells

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*Microelectronic Engineering*, 2019

Article

## Electronic structure and band gap engineering of bilayer graphene nanoflakes in the presence of nitrogen, boron and boron nitride impurities

Mohammed, M.H., Al-Asadi, A.S., Hanoon, F.H.

*Superlattices and Microstructures*, 2019

Article

## Effects of lithium impurities on electronic and optical properties of graphene nanoflakes: A DFT–TDDFT study

Ajeel, F.N., Mohammed, M.H., Khudhair, A.M.

*Chinese Journal of Physics*, 2019

Article

Electronic and electrical properties of siligraphene (g-SiC<sub>3</sub>) in the presence of several strains

Houmad, M., Mohammed, M.H., Masrour, R., El Kenz, A., Benyoussef, A.I.

*Journal of Physics and Chemistry of Solids*, 2019

Article • *Open access*

Oxygen dissolution via pump-turbine – Application to wastewater treatment

Daskiran, C., Attiya, B., Altimemy, M., Liu, I.H., Öztekin, A.

*International Journal of Heat and Mass Transfer*, 2019

Conference Paper

Stabilizing pump-turbine operations using water injection passive control

Altimemy, M., Attiya, B., Daskiran, C., Liu, I.H., Öztekin, A.

*ASME-JSME-KSME 2019 8th Joint Fluids Engineering Conference, AJKFluids 2019*, 2019

Conference Paper

Mitigation of flow-induced pressure fluctuations in a Francis turbine using water injection

Altimemy, M., Attiya, B., Daskiran, C., Liu, I.H., Öztekin, A.

*ASME-JSME-KSME 2019 8th Joint Fluids Engineering Conference, AJKFluids 2019*, 2019

Review

Efficient and secure ECDSA algorithm and its applications: A survey

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*International Journal of Communication Networks and Information Security*, 2019

Article

Energy bandgap engineering of graphene nanoribbon by doping phosphorous impurities to create nano-heterostructures: A DFT study

Ajeel, F.N., Mohammed, M.H., Khudhair, A.M.

*Physica E: Low-Dimensional Systems and Nanostructures*, 2019

Article

A hybrid controller to coordinate the energy paths of hybrid (wind\_ photovoltaic) system

Ihmood, S.M., Hameed, A.

*International Journal of Mechanical Engineering and Technology*, 2018

Article

Engineering and design of simple models from dye-sensitive of solar cells and photovoltaic cells applications: Theoretical study

Khudhair, A.M., Ajeel, F.N., Mohammed, M.H.

*Chemical Physics Letters*, 2018

Article

Analysis the electronic properties of the zigzag and armchair single wall boron nitride nanotubes with single Li impurity in the various sites

Mohammed, M.H., Ajeel, F.N., Khudhair, A.M.

*Journal of Electron Spectroscopy and Related Phenomena*, 2018

Article

Theoretical Study of the Electronic and Optical Properties to Design Dye-Sensitivity for Using in Solar Cell Device

Khudhair, A.M., Ajeel, F.N., Mohammed, M.H.

*Russian Journal of Physical Chemistry B*, 2018

Article

Tunable mechanisms of quantum efficiencies in CdSe and TiO<sub>2</sub> quantum dot solar cells

Dakhil, T., Abdulalmuhsin, S.M., Al-Khursan, A.H.

*Applied Optics*, 2018

Conference Paper

Pressure fluctuation mitigation in a francis turbine with water injection - Computational study

Altimemy, M., Daskiran, C., Attiya, B., Liu, I.H., Öztekin, A.

*ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)*, 2018

Conference Paper

Large eddy simulation of ventilated pump-turbine for wastewater treatment

Daskiran, C., Attiya, B., Altimemy, M., Liu, I.H., Öztekin, A.

*ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)*, 2018

Article • *Open access*

## The exploration of bioenergy generator processing based on the information and communication technology

Mnaathr, S.H., Majli, A.S., Farhoud, I.A.

*International Journal of Mechanical and Production Engineering Research and Development*, 2018

Article • *Open access*

## Glancing angle deposited Pt nanorod array electrocatalysts for direct ethanol fuel cells

Khudhayer, W.J., Allw, A.S., Salman, M.D., Karabacak, T.

*International Journal of Electrochemical Science*, 2017

Article

## Engineering electronic structure of a fullerene C<sub>20</sub> bowl with germanium impurities

Ajeel, F.N.

*Chinese Journal of Physics*, 2017

Article

## Tuning the electronic properties of the fullerene C<sub>20</sub> cage via silicon impurities

Ajeel, F.N., Mohammed, M.H., Khudhair, A.M.

*Russian Journal of Physical Chemistry B*, 2017

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## Theoretical study of the design dye-sensitivity for usage in the solar cell device

Alrikabi, A.

*Results in Physics*, 2017

Article • *Open access*

## Experimental analysis of the temperature and concentration profiles in a salinity gradient solar pond with, and without a liquid cover to suppress evaporation

Sayer, A.H., Al-Hussaini, H., Campbell, A.N.

*Solar Energy*, 2017

Article • *Open access*

## New theoretical modelling of heat transfer in solar ponds

Sayer, A.H., Al-Hussaini, H., Campbell, A.N.

*Solar Energy*, 2016

Article • *Open access*

## Effect of in situ thermal annealing on structural, optical, and electrical properties of CdS/CdTe thin film solar cells fabricated by pulsed laser deposition

Al-Mebir, A.A.K., Harrison, P., Kadhim, A., Zeng, G., Wu, J.Z.

*Advances in Condensed Matter Physics*, 2016

Article • *Open access*

## Development of combinatorial pulsed laser deposition for expedited device optimization in CdTe/CdS thin-film solar cells

Kadhim, A., Harrison, P., Meeth, J., ...Zeng, G., Wu, J.Z.

*International Journal of Optics*, 2016

Article

## Modulation response, mixed-mode oscillations and chaotic spiking in quantum dot light emitting diode

Al Hussein, H.B., Al-Naimee, K.A.M., Al-Khursan, A.H., ...Meucci, R., Arecchi, F.T.

*Chaos, Solitons and Fractals*, 2015

Article • *Open access*

## Enhanced Electrocatalytic Activity by RGO/MWCNTs/NiO Counter Electrode for Dye-sensitized Solar Cells

Al-Bahrani, M.R., Ahmad, W., Mehnane, H.F., ...Cheng, Z., Gao, Y.

*Nano-Micro Letters*, 2015

Article

## NiO-NF/MWCNT nanocomposite catalyst as a counter electrode for high performance dye-sensitized solar cells

Al-Bahrani, M.R., Liu, L., Ahmad, W., ...Cheng, Z., Gao, Y.

*Applied Surface Science*, 2015

Article

## Layer-by-layer deposition of CNT<sup>-</sup> and CNT<sup>+</sup> hybrid films for platinum free counters electrodes of dye-sensitized-solar-cells

Al-Bahrani, M.R., Ahmad, W., Ruan, S., ...Cheng, Z., Gao, Y.

*RSC Advances*, 2015

Article

## Hydrolysis of cellulose over silica-salicylaldehyde phenylhydrazone catalyst

Hello, K.M., Mihsen, H.H., Mosa, M.J., Magtoof, M.S.

*Journal of the Taiwan Institute of Chemical Engineers*, 2015

Conference Paper

## ZnO nanowires/N719 dye/polypyrrole-SWNTs nanocomposite solid state dye sensitized solar cells

Mohammed, M.Z., Abdulmuhsin, S.M., Li, Z., Chen, T.

**2014 IEEE 40th Photovoltaic Specialist Conference, PVSC 2014**, 2014

Article

## Preparation, characterization, viscosity, and thermal conductivity of nitrogen-doped graphene aqueous nanofluids

Mehrali, M., Sadeghinezhad, E., Tahan Latibari, S., ...Kazi, M.S.N., Metselaar, H.S.C.

**Journal of Materials Science**, 2014

Article

## Highly efficient dye-sensitized solar cell with GNS/MWCNT/PANI as a counter electrode

Al-Bahrani, M.R., Xu, X., Ahmad, W., ...Cheng, Z., Gao, Y.

**Materials Research Bulletin**, 2014

Article

## Characterization of surface roughness of Pt Schottky contacts on quaternary n-Al<sub>0.08</sub>In<sub>0.08</sub>Ga<sub>0.84</sub>N thin film assessed by atomic force microscopy and fractal analysis

Țălu, Ș.D.L., Ghazai, A.J., Stach, S., ...Hassan, Z.B., Țălu, M.

**Journal of Materials Science: Materials in Electronics**, 2014

Article

## Effect of thermal annealing on ohmic contacts properties of undoped and Si-doped Al<sub>x</sub>Ga<sub>1-x</sub>N on Si (1 1 1) substrate grown by PA-MBE

Hussein, A.S., Ghazai, A.J., Hassan, Z.B.

**Optik**, 2013

Article

## Four-wave mixing in quantum dot semiconductor optical amplifiers

Flayyih, A.H., Al-Khursan, A.H.

**Applied Optics**, 2013

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