

7.1.3 Affordable and Clean Energy: publications

Total number of publications that were listed in Scopus for the goal is 153. Between 2022 and 2023 the total number was 57 publications making a total of 37.5% of total SDG7 publications in one year (Evidence 7.1.3 Scopus). The following are few examples:

- 1- **"A Smart Vertical Farming Hub at Isra University, Jordan: Toward the Development of Resilient Cities"**
Authors: N.H.A. Younis, Y. Al-Husban, Gh. Abu-Rumman
Journal: Sustainable Development of Mountain Territories, 2024
Summary: This paper explores the implementation of a smart vertical farming system at Isra University, aiming to promote sustainable urban agriculture.
Link: [Sustainable Development of Mountain Territories](#)
- 2- **"The B₃S monolayer as a high-capacity anode material for sodium-ion batteries: First-principles density functional theory approach"**
Authors: Saadh, M.J., Abbood, M.A., Adam Lagum, A.A., ...Kadhim, A.A., Majdi, A.
Journal: Theoretical Chemistry Accounts, 2023
Link: [Theoretical Chemistry Accounts, 2023](#)
- 3- **"Mixed-Dimensional Engineering to Generate a Desirable 2D/3D Heterostructure Perovskite Layer to Record Stable and Efficient Carbon-Based Perovskite Solar Cells"**
Authors: Kumar, A., Sayyed, M.I., Idris, A.M., ...Myaser Abd Alaziz, K., Sharif, H.
Journal: Energy and Fields
Link: [Energy and Fuels, 2023](#)
- 4- **"Development of a Novel, Ecologically Friendly Generation of pH-Responsive Alginate Nanosensors: Synthesis, Calibration, and Characterisation"**
Authors: Alwraikat, A., Jaradat, A.A., Marji, S.M., ...Naser, A.Y., Alyami, M.H.F.
Journal: Sensors (Basel, Switzerland), 2023
Link: [Sensors \(Basel, Switzerland\), 2023](#)
- 5- **"Graphene quantum dots (GQD) and edge-functionalized GQDs as hole transport materials in perovskite solar cells for producing renewable energy: a DFT and TD-DFT study"**
Authors: Kumar, A., Sayyed, M.I., Punina, D., ...Albazoni, H.J., Shariatinia, Z.
Journal: RSC Advances
Link: [RSC Advances, 2023](#)
- 6- **"Synergizing tin dioxide/perovskite interface with fluorine-doped zinc oxide for stabilized and efficient carbon-based perovskite solar cells"**
Authors: Yadav, A., Sayyed, M.I., Ahmad, N., ...Thabit, R., Adhab, A.H.
Journal: Optical Materials 2023
Link: [Optical Materials, 2023](#)
- 7- **"Performance Improvement of a Savonius Wind Turbine using Wavy Concave Blades"**
Authors: Al-Ghriybah, M., Didane, D.H.
Journal: CFD Letters
Link: [CFD Letters, 2023](#)
- 8- **Exploring Ni-doped boron carbide nanotubes: Structural and electronic properties for proton-exchange membrane fuel cells**
Authors: Duhduh, A.A., Krishna Saraswat, S., Adam Lagum, A.A., ...Rajhi, A.A., Kadhim, M.M.
Journal: Inorganic Chemistry Communications
Link: [Inorganic Chemistry Communications, 2023](#)

9- The feasibility of BeP2 monolayer as an anode material for Mg-ion batteries: A density functional theory study

Authors: Abbood, M.A., Ahmed, Y.M., Chandra, S., ...Adam Lagum, A.A., Kadhim, M.M.

Journal: Computational and theoretical chemistry

Link: [Computational and Theoretical Chemistry, 2023](#)

10- Performance enhancement of dye-sensitized solar cells based on nitrogen-doped graphene quantum dots

Authors: Kumar, A., Auda AbdulAmeer, S., Mohammad Mohealdeem, S.M., ...Al-

Ma'Abreh, A.M., Kadhim, M.M.

Journal: Computational and theoretical chemistry

Link: [Computational and Theoretical Chemistry, 2023](#)

11- Using Weibull distribution model for wind energy analysis of small-scale power generation at Al-Salt city in Jordan

Authors: Al-Ghriyah, M., Alnsour, M.A., Al-Hyari, L.F.

Journal: Modelling Earth Systems and Environment

Link: [Modeling Earth Systems and Environment, 2023](#)

12- MANAGEMENT AND DEVELOPMENT OF A RESIDENTIAL ENERGY STORAGE SYSTEM: A CASE STUDY JORDAN

Authors: Abu-Attieh, S., Al-Omari, Z.A.M., Emar, W.M.

Journal: Journal of Applied Engineering Sciences

Link: [Journal of Applied Engineering Science, 2022](#)