

January 20, 2022

Webinar

Chemical Sciences Journal
ISSN: 2150-3494

Sustainable Development and Environment of Biomass from Agriculture Residues

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This communication discusses a comprehensive review of biomass energy sources, environment and sustainable development. This includes all the biomass energy technologies, energy efficiency systems, energy conservation scenarios, energy savings and other mitigation measures necessary to reduce emissions globally. This study highlights the energy problem and their possible saving that can be achieved through the use of biomass energy sources. Also, this study clarifies the background of the study, highlights the potential energy saving that could be achieved. The use of biomass energy source describes the objectives, approach and scope of the theme. However, to be truly competitive in an open market situation, higher value products are required. Results suggest that biomass technology must be encouraged, promoted, invested, implemented, and demonstrated as a whole while especially in remote rural areas.

The global warming will eventually lead to substantial changes in the world's climate, which will, in turn, have a major impact on human life and the environment. Energy use can be achieved by minimising the energy demand, by rational energy use, by recovering heat and the use of more green energies. This will lead to fossil fuels emission reduction. This study was a step towards achieving this goal. The adoption of green or sustainable approaches to the way in which society is run is seen as an important strategy in finding a solution to the energy problem. The key factors of reducing and controlling CO₂, which is a major contributor to global warming, are the use of alternative approaches to energy generation and the exploration of how these alternatives are used today and may be used in the future as green energy sources. Even with modest assumptions about the availability of land, comprehensive fuel-wood farming programmes offer significant energy, economic and environmental benefits. These benefits would be dispersed in rural areas where they are greatly needed and can serve as linkages for further rural economic development. The nations as a whole

would benefit from savings in foreign exchange, improved energy security, and socio-economic improvements.

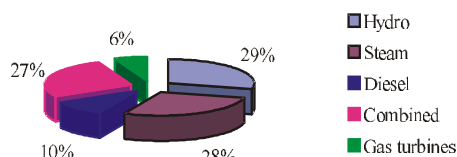


Figure 1. Electricity generated in 2005 (GWh)

Recent Publications

- O. Adiguzel, [Phase Transitions and Microstructural Processes in Shape Memory Alloys](#), Materials Science Forum Vol. 762 (2013) pp 483-486, (2013) Trans Tech Publications, Switzerland
- O. Adiguzel, Self-accommodating Nature of Martensite Formation in Shape Memory Alloys, Solid State Phenomena Vol. 213 (2014) pp 114-118, © (2014) Trans Tech Publications,
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- O. Adiguzel, [Nano-Scale Mechanisms in the Formation of Displacive Transitions in Shape Memory Alloys](#), Physics, Chemistry and Applications of Nanostructures - Proceedings of the International Conference Nano-meeting - 2013. Edited by Borisenko Victor E et al. Published by World Scientific Publishing Co. Pte. Ltd
- O. Adiguzel, Thermoelasticity, Superelasticity and Nanoscale Aspects of Structural Transformations in Shape Memory Alloys. In: Struble L, Tebaldi G. (eds) Materials for Sustainable Infrastructure (2018), Geo-MEast 2017. Sustainable Civil Infrastructures. Springer,

Biography

Abdeen Mustafa Omer (BSc, MSc, PhD) is an Associate Researcher at Energy Research Institute (ERI). He obtained both his PhD degree in the Built Environment and Master of Philosophy degree in Renewable Energy Technologies from the University of Nottingham. He is qualified Mechanical Engineer with a proven track record within the water industry and renewable energy technologies. He has been graduated from University of El Menoufia, Egypt, BSc in Mechanical Engineering. His previous experience involved being a

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