

Carbon dioxide capture essay examples

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Abanades, J., Rubin, E., & Anthony, E. (2004, March 26). Sorbent Cost and Performance in CO₂ Capture Systems - Industrial & Engineering Chemistry Research (ACS Publications) . I&EC Research. Retrieved October 1, 2013, from <http://pubs.acs.org/doi/abs/10.1021/ie049962v>

Power plants are usually advised to apply Carbon dioxide capture in the final storage as an alleviation option to climate changes. Various carbon dioxide captures concepts apply sorption and desorption cycle as a method of separating Carbon dioxide from flue gas as well as oxygen from air.

However, it is required that all carbon capturing processes must be in a position to handle the massive flow of carbon dioxide in the atmosphere. Following the sensitivity of the information about carbon dioxide various people have failed to establish proper ground for knowledge to the population. Therefore, there is need for exclusive research on how carbon dioxide should be captured and stored.

GreenLime. (2012, September 13). Carbon Dioxide from Fermentations. GreenLime - Environmental Advocates. Retrieved October 1, 2013, from <http://www.greenlime.com.au/Recycling-CO2-from-Wine.php>

GreenLime Carbon Dioxide Recovery gives wineries power to have economical benefits from the carbon dioxide that is generated in the process of making wine. This organization has been in a position to save itself from purchasing carbon dioxide for use. Raw materials used in winemaking are rich in carbon dioxide once they are processed. The ability for a wine making company to make its own carbon dioxide lies in the modern technology since they have developed a machine capable of carrying out the production process. However, production in wine making and brewing processes are different. Winemaking process is more reliable than the brewing process in <https://assignbuster.com/carbon-dioxide-capture-essay-examples/>

terms of period of operation, and potential market for the product.

Hester, R. E., & Harrison, R. M. (2010). Carbon Capture and Storage. Cambridge Royal Society of Chemistry.

It is renowned that global warming that is being experienced is as a result of increasing level of carbon dioxide in the atmosphere. However, carbon dioxide has resulted to other greenhouse gases in the atmosphere. The main challenge in dealing with carbon dioxide is presence of proper method of capturing as well as storing Carbon dioxide from major sources. The mainly known methods of capturing and storing carbon dioxide are burning fossil fuel, and power plants. However, there are natural absorption methods which are usually harmful to the public such as in oceans and forests. This has introduced exclusive review of sources of energy such as solar and nuclear elements.

Shi, I., Yang, G., & Tao, K. (2013, March 4). Accounts of Chemical Research. An Introduction of CO₂ Conversion by Dry Reforming with Methane and New Route of Low-Temperature Methanol Synthesis. Retrieved October 1, 2013, from <http://pubs.acs.org/doi/full/10.1021/ar300217j>

Carbon dioxide is a major contributor for the greenhouse effect and cheap non-toxic building block for single carbon. Carbon dioxide has been a major research in energy sciences. In chemical conversion of carbon dioxide there may extensive challenge following presence of other gases in the atmosphere. However, some of these gases are extremely useful in the atmosphere. Currently, a gas-to-liquid (GTL) industry is being developed in the shale gas revolution to ensure it is easy to capture carbon dioxide and store it safely as the environment gets safe. GTL is being used in combination with certain processes such as Fischer-Tropsch synthesis (FTA), <https://assignbuster.com/carbon-dioxide-capture-essay-examples/>

which is a major catalytic process in the conversion of hydrocarbons.

United States patent and trademark Office. (2011, August 11). Class Definition for Class 977 - NANOTECHNOLOGY. United States Patent and Trademark Office. Retrieved October 1, 2013, from <http://www.uspto.gov/web/patents/classifi>

Nanotechnology is an extremely vital topic in the analysis for carbon control in the atmosphere. There have been various nanostructures that are being constructed to monitor carbon dioxide in the atmosphere as well as its effects. Since nanostructure is proper definition of molecular, atomic or macromolecular structures, it is extremely vital in understanding how carbon dioxide and other gases in the atmosphere may be captured and stored. There must be proper understanding of the gas for proper process of capturing and storage to occur. Experts in various fields are needed to assist in proper knowledge of trough nanostructures; carbon dioxide may be arrested in the atmosphere and stored to save people from its effects.

References

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