# Article information:

Progress in carbon dioxide separation and capture: A review - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S1001074208600029>

# Article summary:

1. This article reviews the progress made in CO2 separation and capture research and engineering, discussing various technologies such as absorption, adsorption, and membrane separation.

2. New concepts such as chemical-looping combustion and hydrate-based separation are also introduced briefly.

3. Sequestration methods such as forestation, ocean fertilization and mineral carbonation techniques are also covered.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Progress in Carbon Dioxide Separation and Capture: A Review” is a comprehensive review of the current state of research into carbon dioxide (CO2) separation and capture technologies. The article provides an overview of the various technologies available for CO2 capture, including absorption, adsorption, membrane separation, chemical-looping combustion, hydrate-based separation, sequestration methods such as forestation, ocean fertilization and mineral carbonation techniques.

The article is well written and provides a thorough overview of the current state of research into CO2 capture technologies. It is clear that the authors have done extensive research on the topic and have provided detailed information on each technology discussed. The article does not appear to be biased or one-sided in its reporting; it presents both sides equally by providing an overview of both existing technologies as well as new concepts being explored. Furthermore, the authors provide references for each source they cite which adds to the trustworthiness of their claims.

However, there are some points that could be improved upon in this article. For example, while underground injection and direct ocean dump are mentioned as possible sequestration methods for CO2 capture, no further information is provided on these topics which could be beneficial to readers who may want to explore them further. Additionally, while risks associated with some of the technologies discussed are noted (e.g., potential corrosion issues with amine scrubbing), other potential risks associated with other technologies (e.g., membrane separation) are not discussed which could be useful for readers considering using these technologies in their own projects or research endeavors.

In conclusion, this article provides a comprehensive overview of current CO2 capture technologies with detailed information on each technology discussed along with references for each source cited which adds to its trustworthiness and reliability overall. However there are some areas where more information could be provided such as potential risks associated with certain technologies or further discussion on sequestration methods such as underground injection or direct ocean dump which could benefit readers looking to explore these topics further.

# Topics for further research:

* Underground injection of carbon dioxide
* Direct ocean dump of carbon dioxide
* Potential risks of membrane separation
* Corrosion issues with amine scrubbing
* Forestation as a sequestration method
* Mineral carbonation techniques for CO2 capture

# Report location:

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