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“CLEANER PRODUCTION INITIATIVES AND CHALLENGES FOR A SUSTAINABLE WORLD”

Storage of Carbon Dioxide in Geological Reservoirs: Is It a Cleaner Technology?

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Abstract

Climate changes due to the increase of anthropogenic emissions and the accumulation of greenhouse gases (GHGs) in the atmosphere are among the major global environmental concerns. The scientific analysis and discussions on the effect of anthropogenic GHG emissions and its consequences on climate change received notoriety in recent decades. Carbon Dioxide (CO₂) is one of the main GHG and several technologies have been developed to capture and dispose it before it being released. CO₂ storage in geological reservoirs is one of the technological solutions that have gained strength as an option for the disposal of CO₂. This article primarily focuses on answering the following question: To what extent can the Storage of Carbon Dioxide in Geological Reservoirs (CGS) be considered a cleaner technology? Accordingly literature research on the subject, as well as document analysis and expert consultation were undertaken. Initially it was reviewed the literature on environmental technologies and, more specifically, the literature on the CGS technology. Subsequently, it is discussed the CGS technology as an environmental technology, concluding that it can be considered as a transitional technology. For now, it is understood that this is an exploratory research on the subject due to the CGS technology being under development and consequent maturation which results in the need for further and continuous studies on both this technology and its impacts.

Keywords: *Environmental Technology, Geological Storage of Carbon Dioxide, CGS, CO₂.*

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