

		<b>Journal of the Japan Society of Naval Architects and Ocean Engineers</b>			
		<i>The Japan Society of Naval Architects and Ocean Engineers</i>			
<a href="#">Available Volumes</a>	<a href="#">Japanese</a>	>> <a href="#">Publisher Site</a>			
Author:	<input type="text"/>	<a href="#">ADVANCED</a>	Volume	Page	
Keyword:	<input type="text"/>	<input type="button" value="Search"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Go"/>



[TOP](#) > [Available Volumes](#) > [Table of Contents](#) > Abstract

ONLINE ISSN : 1881-1760

PRINT ISSN : 1880-3717

## Journal of the Japan Society of Naval Architects and Ocean Engineers

Vol. 3 (2006) pp.35-46

[\[PDF \(1637K\)\]](#) [\[References\]](#)

### Economical feasibility study on CO<sub>2</sub> sequestration in the form of gas hydrate under seafloor

[Masayuki Inui](#) and [Toru Sato](#)

(Received March 1, 2006)

**Summary:** A new concept for CO<sub>2</sub> geological sequestration is proposed as one of promising countermeasures against the global warming. For general geological sequestration technologies, there are still some issues we need to tackle, such as the shortage of possible sites to sequestrate, environmental risks due to leakage, and costs. In order to solve these problems, we propose a system to sequestrate a large amount of CO<sub>2</sub> in the form of gas hydrate under the seafloor safely. In this system, we capture a mixture of CO<sub>2</sub> and N<sub>2</sub> from the flue gas exhausted from a coal-fired power plant and inject the mixture into marine sediments, where pressure is high enough and temperature is low enough to form hydrates. Besides, by using the CO<sub>2</sub> + N<sub>2</sub> mixture gas, we can reduce the cost and avoid the blockage by the hydrates in marine sediments. In this work, we assessed the potential amount of sequestered CO<sub>2</sub> and the cost of this system. From the results, the amount of CO<sub>2</sub> that can be sequestered offshore Japan by this system was estimated to be twice and the sequestration cost was reduced by 15%, compared with those of CO<sub>2</sub> aquifer storage.

[\[PDF \(1637K\)\]](#) [\[References\]](#)

Download Meta of Article [\[Help\]](#)

[RIS](#)

[BibTeX](#)

Masayuki Inui and Toru Sato: Economical feasibility study on CO<sub>2</sub> sequestration in the form of gas hydrate under seafloor , Journal of the Japan Society of Naval Architects and Ocean Engineers, (2006), Vol. 3, pp.35-46 .

Copyright (c) 2006 The Japan Society of Naval Architects and Ocean Engineers

---



---

[Japan Science and Technology Information Aggregator, Electronic](#)

