

Institute of Chemical Engineering

Adres artykułu: <https://iich.gliwice.pl/en/article/sequestration-of-carbon-dioxide-by-mineral-carbonation-process-using-fly-ash-from-lignite-fluidized-bed-combustion>

Sequestration of carbon dioxide by mineral carbonation process using fly ash from lignite fluidized bed combustion

Publication date:	30.12.2015
Publication title:	Sequestration of carbon dioxide by mineral carbonation process using fly ash from lignite fluidized bed combustion
Authors:	Manfred Jaschik , Krzysztof Warmuziński , Jolanta Jaschik
Journal information:	Prace Naukowe Instytutu Inżynierii Chemicznej Polskiej Akademii Nauk
Tags:	mineral carbonation , sequestration of co2 , industrial waste , fly ash , precipitation , calcium carbonate

Abstract: The preliminary studies of indirect aqueous carbonation process using fly ash from lignite fluidized bed combustion are presented. Leachate after the dissolution of waste of pH=13 contained $0.0535 \text{ mol} \cdot \text{l}^{-1}$ of Ca^{+2} . The experimental research were conducted for a mixture of nitrogen and carbon dioxide, with about 13% of CO_2 . After 9 minutes of conducting the process a 50 % conversion of calcium was attained, and almost 100% of carbon dioxide supplied to the reactor was captured.

Attachments:

[Zeszyt-19-2015](#) pdf, 5.37 MB

Created at:	04.08.2025
Published by:	Artur Wojdyla
Published at:	04.08.2025 13:29
Number of downloads:	74

Tagi: mineral carbonation, sequestration of co2, industrial waste, fly ash, precipitation, calcium carbonate

Metryczka

Published by:	Artur Wojdyła
Published at:	18.09.2025 13:40
Number of views:	77