



“Gheorghe Asachi” Technical University of Iasi, Romania



CONSTRUCTION OF A MODEL FOR PREDICTING GREENHOUSE GAS EMISSION FOR AQUACULTURE WETLANDS BASED ON ROUGH SET

**Zhiqiang Hu^{1,2}, Yu Zhu^{1,2}, Yan Wang^{1,2}, Rongrong Zhu¹,
Chenlong Feng¹, Tingyou Li^{1,2*}**

¹*College of Pharmacy and Chemistry and Chemical Engineering, Taizhou University, Taizhou 225300, China*
²*Jiangsu Key Laboratory of Chiral Pharmaceuticals Biomanufacturing, Taizhou University, Taizhou 225300, China*

Abstract

Aiming to improve the accuracy of predicting aquaculture wetlands derived greenhouse gas emissions, built on rough sets, a new model for predicting aquaculture wetlands derived greenhouse gas emissions is designed. The data of greenhouse gases in aquaculture wetland were collected and normalized. Based on the processed data, the gas emission relationship model of aquaculture wetland greenhouse was constructed. The rough set theory is used to construct a model for predicting aquaculture wetlands derived greenhouse gas emissions. So far, the prediction of aquaculture wetlands derived greenhouse gas emissions is realized. The experimental results show that the prediction model based on rough set improves the prediction accuracy and reduces the prediction time.

Key words: aquaculture wetland greenhouse, emission trend, gas emission, prediction rough set

Received: November, 2020; Revised final: August, 2021; Accepted: December, 2021; Published in final edited form: February, 2022

* Author to whom all correspondence should be addressed: e-mail: litinyou215@163.com