

DRYING KINETICS OF FISH (*Clarias gariepinus*) SMOKED WITH BIOGAS

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Abstract

This is aimed at studying the aeration kinetics of catfish (*Clarias gariepinus*) smoked directly with biogas. Five live fresh fishes (*Clarias gariepinus*) were obtained from Fishery and Aquaculture Technology Department in FUTA, Ondo State, Nigeria. The fishes were killed, de-gutted, thoroughly washed with water, cut into pieces of 3 cm length. The chunks were smoked with biogas and the weight was being monitored at 15 minutes interval until constant weight was observed.. The study showed that the time taken for drying of *Clarias gariepinus* to reach the humidity point of around 12.43% (db.) was two and a half hours. We tailored the drying data to 10 thin-layer drying models. The compared the performances of the models using the determination of coefficient (R^2), reduced chi-square (χ^2) and root mean square error (RMSE) between the detected and foreseen moisture ratios. The results showed that Henderson and Pabis modified model was found to satisfactorily describe the biogas drying curves of *Clarias gariepinus*.

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