Yogyakarta, May 8, 2026
Editorial Board Jurnal Ilmu Lingkungan
Universitas Diponegoro

Dear Editor-in-Chief,
We are pleased to submit our manuscript entitled *"Performance Analysis of Ozonation on Sludge Filterability for Sludge Separation from Coal Mine Runoff"* for consideration for publication in *Jurnal Ilmu Lingkungan*. Coal mining runoff presents a significant environmental challenge due to the presence of elevated suspended solids and persistent colloidal matter that hinder efficient solid–liquid separation. In this study, we investigated the application of ozonation as a pre-treatment strategy to enhance the filterability of coal mine runoff sludge by modifying colloidal stability and promoting compact floc formation.

The key findings of this study are as follows:

- Moderate ozone doses (1.2–3 g h^{-1} L^{-1}) effectively destabilized colloidal particles and enhanced floc compactness, leading to improved filtration performance.
- Excessive ozonation (6 g h^{-1} L^{-1}) released humic fragments and fine colloids, impairing dewaterability.
- The optimum condition was achieved at 1.2 g h^{-1} L^{-1} for sludge with TSS ≈ 10,000 mg L^{-1}, yielding an 86.87% reduction in filtrate turbidity and a 34.53% decrease in filtration time.
- These results demonstrate that controlled ozonation offers a promising and sustainable pre-treatment pathway for sludge management in the mining sector.

We believe this manuscript aligns well with the scope of *Jurnal Ilmu Lingkungan* and will be of significant interest to researchers and practitioners in environmental engineering, water treatment, and mining waste management. This manuscript has not been previously published and is not under consideration for publication elsewhere. All authors have approved the manuscript and agreed to its submission. There are no conflicts of interest to declare.

We sincerely appreciate your time and consideration. We look forward to the opportunity to contribute to *Jurnal Ilmu Lingkungan*.

Yours sincerely,

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