

BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Berdasarkan penelitian yang dilakukan mengenai pengaruh laju alir larutan ion logam tembaga (II) terhadap persentase *removal* pada proses biosorpsi menggunakan *Chlorella pyrenoidosa* dalam fotobioreaktor kontinu dapat disimpulkan sebagai berikut:

1. Hasil kultivasi *Chlorella pyrenoidosa* menunjukkan terjadi peningkatan jumlah sel yang tinggi antara hari ke-3 dan ke-4.
2. Persentase *removal* ion logam tembaga (II) tertinggi didapat pada variasi laju alir 3 ml/menit, yaitu sebesar 27,84% pada jam ke-4.
3. Semakin besar laju alir, semakin cepat biosorpsi mencapai kesetimbangan.

5.2 Saran

Saran yang dapat diberikan pada penelitian ini adalah:

1. Mempertimbangkan jenis filter yang digunakan atau memodifikasi alat agar dapat menahan kepadatan sel mikroalga dalam fotobioreaktor.
2. Meningkatkan kepadatan sel mikroalga yang digunakan pada proses biosorpsi agar menghasilkan persentase *removal* yang lebih baik.
3. Mencoba penelitian dengan jenis logam selain tembaga (II) untuk mengetahui kemampuan biosorpsi *Chlorella pyrenoidosa* terhadap jenis logam lain.
4. Melakukan penelitian dengan jenis mikroalga lain untuk mengetahui kemampuan biosorpsi terhadap ion logam tembaga (II).

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