



BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

1. Koagulan biji asam jawa berpengaruh secara efektif dalam penurunan COD limbah tekstil hingga maksimum sebesar 68,24% dan susu hingga maksimum sebesar 30,35% pada kondisi optimumnya, akan tetapi tidak dapat menurunkan COD limbah detergen.
2. Koagulan biji asam jawa berpengaruh secara efektif dalam penurunan konsentrasi zat warna limbah tekstil hingga maksimum sebesar 77,53% (konsentrasi zat warna sebesar 20 ppm dan nilai pH sebesar 3,7) .
3. Koagulan biji asam jawa berpengaruh secara efektif dalam penurunan turbiditas limbah susu hingga maksimum sebesar 83,67% pada kondisi optimum, namun tidak dapat menurunkan turbiditas limbah detergen.
4. Kondisi optimum bagi koagulan biji asam jawa untuk mengkoagulasi limbah tekstil terdapat pada pH 3,7 dan dosis koagulan sebesar 3,24 g/L.
5. Kondisi optimum bagi koagulan biji asam jawa untuk mengkoagulasi limbah susu terdapat pada pH 3,45 dan dosis koagulan sebesar 2,85 g/L.
6. Limbah cair yang paling sesuai untuk diolah dengan koagulan alami biji asam jawa adalah limbah tekstil jika ditinjau dari penurunan COD.

5.2 Saran

1. Penelitian terhadap limbah cair detergen dapat ditinjau pada kondisi pH basa.
2. Koagulasi limbah susu dapat ditinjau pada rentang dosis koagulan yang 0-1,5 g/L .
3. Dilakukan peninjauan ulang terhadap kadar kanji dan Na-CMC dalam pembuatan limbah cair tekstil sintetis.

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