



## BAB V KESIMPULAN DAN SARAN

### 5.1. Kesimpulan

Dari hasil penelitian yang dibatasi pada temperatur 100 hingga 250°C dan waktu operasi 15 hingga 45 menit yang disajikan dalam Bab IV, menghasilkan beberapa kesimpulan sebagai berikut :

1. Temperatur dan waktu operasi mempengaruhi konsentrasi dari nikel dan aluminium. Peningkatan temperatur dan waktu operasi menyebabkan kenaikan konsentrasi nikel dan aluminium. Pada sampel *spent catalyst* didapatkan konsentrasi nikel dan aluminium terbesar pada temperatur 250°C dan waktu operasi 45 menit. Pada nikel didapatkan *recovery* sebesar 0,0065% dan aluminium sebesar 0,0439%.
2. Nilai energi aktivasi ( $E_a$ ) yang diperoleh untuk nikel adalah sebesar 52,84 kJ/mol, sedangkan untuk aluminium adalah sebesar 16,98 kJ/mol.

### 5.2. Saran

Dari hasil penelitian yang telah dilakukan, saran yang diberikan untuk penelitian yang selanjutnya sebagai berikut :

1. Dalam penelitian ini, hasil konsentrasi yang didapatkan dari nikel dan aluminium masih dapat ditingkatkan dengan diberikannya zat penambah di dalam operasi, sehingga untuk penelitian selanjutnya sebaiknya menambahkan zat *chelating agent*.
2. Dalam penelitian ini, waktu operasi perlu ditingkatkan agar mendapatkan konsentrasi nikel dan aluminium lebih baik.
3. Nilai pH larutan operasi perlu diperhatikan untuk penelitian selajutnya agar dapat meningkatkan jumlah konsentrasi nikel dan aluminium.



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