BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Berdasarkan penelitian yang telah dilakukan, kesimpulan yang diperoleh adalah sebagai berikut:

1. Waktu optimum pada proses presipitasi ammonium molibdat adalah 60 menit.
2. Konsentrasi optimum pada proses presipitasi ammonium molibdat adalah 5 gram.
3. Komposisi Mo yang didapatkan dari hasil XRF presipitat adalah 43,66% pada sampel non-surfaktan dan 38,6% pada sampel dengan surfaktan. Hasil XRD menunjukkan puncak kristal $(NH_4)_6Mo_7O_{24}.4H_2O$ yang dominan. Ukuran partikel sampel dengan penambahan surfaktan yaitu panjang 278,2 nm dan lebar 190,8 nm. Ditemukan struktur *lamellar* pada sampel yang mengindikasikan α-MoO_3 dengan lebar rata-rata *fringe* sebesar 2,52 nm.
4. Penambahan surfaktan menyebabkan penurunan perolehan molibdenum dalam presipitat ammonium molibdat.

5.2 Saran

Berdasarkan penelitian yang telah dilakukan, saran yang dapat diberikan untuk penelitian selanjutnya adalah sebagai berikut:

1. Menggantikan media pencuci metanol menjadi air demin untuk mencegah terjadinya presipitasi Na_2SO_4 yang tidak diinginkan atau menggunakan cara pencucian lain yang lebih efektif, seperti misalnya memisahkan padatan sebelum pencucian untuk mencegah Na_2SO_4 terpresipitasi.
2. Melakukan proses kalsinasi pada hasil presipitasi untuk menghasilkan produk akhir yang lebih final dan konkrit, yaitu MoO_3.
3. Melakukan pengujian FTIR untuk memastikan apakah surfaktan masih terdapat dalam presipitat.
4. Melakukan pengujian HRTEM atau SEM agar dapat memahami bentuk nanopartikel dengan jelas.

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