BAB V
KESIMPULAN DAN SARAN

V.1. Kesimpulan

1. Modifikasi permukaan MCM-41 dengan penambahan 3-*aminopropyltriethoxysilane* (APTES) bertujuan sebagai media perantara untuk pengikat antara MCM-41 dengan rifampicin.
2. Modifikasi permukaan MCM-41 dengan APTES 0,6 mL memberikan massa rifampicin terbesar yang dapat masuk ke dalam pori nanopartikel, yaitu 81,4189 mg.
3. Hasil uji pelepasan rifampicin tertinggi diperoleh dari modifikasi permukaan MCM-41 dengan APTES 0,2 mL, yaitu sebesar 9,1%.

V.2. Saran

Pada studi penelitian ini, rifampicin tidak dapat terlepas dari dalam pori MCM-41 secara keseluruhan. Untuk itu perlu adanya penambahan parameter lain, antara lain suhu dan pH media larutan pada saat melakukan uji pelepasan, sehingga dapat membantu peningkatan kinerja nanopartikel sebagai penghantar obat. Perlu dilakukan studi lebih lanjut untuk mengetahui pelepasan rifampicin dengan melakukan permodelan release profile dari MCM-41. Permodelan tersebut bertujuan untuk mengetahui interaksi yang terjadi antara partikel dan obat di dalam media uji.

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