

## **BAB 5**

### **KESIMPULAN DAN SARAN**

#### **5.1 Kesimpulan**

Berdasarkan hasil penelitian yang telah dilakukan, maka dapat disimpulkan bahwa:

1. Senyawa 4-metoksikhalkon dapat disintesis dengan cara konvensional maupun dengan bantuan iradiasi gelombang mikro.
2. Rendemen hasil sintesis senyawa 4-metoksikhalkon dengan cara konvensional (83,58%) lebih besar dibandingkan dengan bantuan iradiasi gelombang mikro (52,78%).
3. Reaksi antara 4-metoksiasetofenon dan 4-nitrobenzaldehyd dengan cara konvensional tidak menghasilkan senyawa derivat khalkon, namun membentuk senyawa 3-hidroksi-1-(4-metoksifenil)-3-(4-nitrofenil)propan-1-on dengan rendemen sebesar 81,60%.
4. Reaksi antara 4-metoksiasetofenon dan 4-nitrobenzaldehyd dengan bantuan iradiasi gelombang mikro belum dapat menghasilkan senyawa tunggal.
5. Substituen nitro pada posisi para pada benzaldehyd menyebabkan belum terbentuknya senyawa derivat khalkon pada kondisi sintesis menggunakan NaOH 0,125 mmol, baik dengan cara konvensional maupun dengan bantuan iradiasi gelombang mikro.

#### **5.2 Saran**

1. Optimasi penentuan pelarut rekristalisasi perlu dilakukan agar didapat hasil perolehan kembali yang lebih besar.

2. Sintesis senyawa 4-metoksikhalkon dilakukan dengan daya iradiasi gelombang mikro yang lebih besar sehingga menghasilkan rendemen yang lebih banyak.
3. Sebaiknya pemurnian senyawa dilakukan dengan metode kromatografi kolom agar dapat diperoleh senyawa tunggal.
4. Perlu dilakukan penelitian lebih lanjut mengenai aktivitas farmakologi senyawa hasil sintesis 4-metoksikhalkon.

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