

BAB V

KESIMPULAN & SARAN

5.1 Kesimpulan

Dari penelitian pirolisis LDPE menjadi bahan bakar cair, dapat disimpulkan bahwa :

1. Katalis yang menghasilkan produk pirolisis terbaik merupakan katalis yang memiliki situs asam bronsted terbanyak yaitu ZSM-5, diikuti Bentonite dan SiO₂.
2. Variasi suhu dalam menghasilkan produk pirolisis terbaik merupakan variasi dengan suhu 265°C.
3. % *Loading* sebesar 5 % dinilai lebih ekonomis dan lebih baik, dikarenakan perolehan produk cair tidak berbeda jauh dengan 7% dan 10%.
4. Waktu reaksi 1 jam dinilai lebih baik dan lebih ekonomis ketimbang waktu reaksi 2 jam dan 3 jam dikarenakan perolehan produk cair yang tidak berbeda jauh.

5.2 Saran

Saran untuk penelitian pirolisis LDPE menjadi bahan bakar cair adalah :

1. Padatan hasil pirolisis dapat di pirolisis kembali sehingga menghasilkan produk cair yang lebih banyak. Namun perlu dipertimbangkan cara memisahkan katalis dari produk padat. Bila dilakukan bertahap dan katalis terus ditambahkan, maka dapat terjadi deposit katalis pada reaktor.
2. Pada penelitian selanjutnya dapat lebih berfokus kepada katalis bentonite dan SiO₂

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