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- Introduction
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- Introduction
- Optimization of various reaction parameters
- Regeneration and Recycling of the catalyst
- Characterization of Regenerated Catalysts
- Catalytic activity of Regenerated Catalysts
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- Introduction
- Optimization of various reaction parameters
- Regeneration and Recycling of the catalyst
- Characterization of Regenerated Catalysts
- Catalytic activity of Regenerated Catalysts
- Kinetics studies
- Determination of order of reaction and activation energy
- **Conclusion**

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- Introduction
- Optimization of various reaction parameters
- Regeneration and Recycling of the catalyst
- Characterization of Regenerated Catalysts
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- **Effect of Support pore diameter (Pore Expanded MCM-41)**
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Chapter -5

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- Introduction
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- Synthesis of anchored catalysts
- Characterization
 - Chemical Stability
 - Leaching test
 - Elemental Analysis
 - Thermo Gravimetric Analysis
 - Fourier Transform Infrared Spectroscopy
 - Laser Raman spectroscopy
 - Diffuse Reflectance Spectra
 - Solid state MAS-NMR (^{31}P & ^{29}Si)
 - Powder X-Ray Diffraction (XRD)
 - BET Measurement
 - Scanning Electron Microscopy (SEM)
 - Transmission Electron Microscopy (TEM)
 - Acidity measurement
- Conclusion

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I. Esterification

II. Application in Biodiesel production

- Effect of Supports on catalytic activity of 12-tungstophosphoric acid
- Conclusion

Novelty of the work