

Thesis / Dissertation Title

Thesis by

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This thesis/dissertation, entitled (**THESIS/DISSERTATION TITLE IN ALL CAPS**), prepared and submitted by (**FULL NAME OF STUDENT IN ALL CAPS**), in partial fulfilment of the requirements for the degree of (**TITLE OF DEGREE IN ALL CAPS**) is hereby accepted.

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To God be the glory!

Abstract of Thesis

Elevated concentration of sulphur in diesel fuel is one of the major contributors to air pollution. To limit the amount of sulphur in fuel to less than 15 ppm, oxidative desulfurization was studied using model diesel fuel over two types of phase transfer agent (PTA), namely ammonium and phosphonium salt.

Furthermore, in oxidative desulfurization, one of the important factors that affects the conversion of sulphur compound and accelerate the reaction is agitation. It is known that the reaction of sulphur compounds in fuel with an oxidant is considerably slow, therefore determining appropriate mixing techniques is important for the enhancement of the system. In this research, oxidative desulfurization by means of high intensity probe ultrasonication and high shear mixer were also described.

Table of Contents

Approval Page	ii
Acknowledgement	iii
Abstract of Thesis	iv
Table of Contents	v
List of Tables, Figures, Illustrations, Charts or Graphs	vii
1. Introduction	1
2. Review and Literature	2
2.1 Ultrasound	2
2.1.1 Fundamentals of Ultrasound	2
2.1.1.1 Acoustic Cavitation	2
3. Methodology	3
4. Results and Discussion	4
4.1 Reactivity and Selection of Two Onium Salt Using Model Fuel	4
4.2 Effect of Process Parameters on Desulfurization Efficiency	4
5. Summary and Recommendations	5
5.1 Summary and Conclusions	5
5.2 Recommendation for Future Work	6

Bibliography	7
Appendix	8
Glossary	9

List of Tables, Illustrations, Charts, or Graphs