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## 豆油乙二醇醚酯生物柴油燃料特性研究

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作者: 张红云<sup>1</sup> (KeySearch.aspx?type=Name&Sel=张红云); 郭和军<sup>2</sup> (KeySearch.aspx?type=Name&Sel=郭和军); 马志卿<sup>3</sup> (KeySearch.aspx?type=Name&Sel=马志卿)

1第二炮兵士官学校, 青州 262500;

2第二炮兵工程学院, 西安 710025;

3武警山东总队直属支队, 济南 250012

Author(s): ZHANG Hong-yun<sup>1</sup> (KeySearch.aspx?type=Name&Sel=ZHANG Hong-yun); GUO He-jun<sup>2</sup> (KeySearch.aspx?type=Name&Sel=GUO He-jun); MA Zhi-qing<sup>3</sup> (KeySearch.aspx?type=Name&Sel=MA Zhi-qing)

1Second Artillery Soldier School, Qingzhou, 262500;

2Second Artillery Engineering College, Xi'an, 710025;

3Directly Subordinating Detachment of Shandong General Team in Armed Police Force, Jinan, 250012

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摘要: 以乙二醇醚和精制大豆油在金属钠催化下合成了豆油乙二醇醚酯生物柴油, 考察了该生物柴油作为替代燃料在性能方面与柴油的差别; 研究了作为柴油添加剂, 其加入量对混合燃料性能的影响。结果表明, 豆油乙二醇醚酯生物柴油的燃料特性达到了国外生物柴油生产标准, 可以直接作为柴油使用, 也可与矿物柴油掺合使用, 提高了柴油的使用性能。

Abstract: Ethylene glycol monoethyl ether soyate, a new kind of biodiesel has been synthesized using ethylene glycol monoethyl ether and refined soybean oil as reagents and Na as catalyst. The differences between the newly prepared biodiesel and diesel oil were studied. The effects of the dosage of Ethylene glycol monoethyl ether soyate on the performance of mix fuel were investigated. Experimental results show that the physical and chemical properties of Ethylene glycol monoethyl ether soyate satisfy the national standard of biodiesel to be directly used as diesel oil. And as an additional component of diesel oil, Ethylene glycol monoethyl ether soyate can improve the performances of the diesel.

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备注/Memo 作者简介: 张红云(1979-), 女, 硕士生, 讲师, 研究方向可再生资源。Tel:13070755361, E-mail:Zhy20012001518@shou.com, smzhysm@126.com

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