

عنوان مقاله:

Sustainable development analysis of diesel, biodiesel and hydrogen in internal combustion engines

محل انتشار:

نهمین کنفرانس بین المللی مهندسی صنایع و سیستم ها (سال: 1402)

تعداد صفحات اصل مقاله: 9

نویسندگان:

;(Mohammad Reza Saberi - *Quality Expert of Materials and Components, Iran Khodro Khorasan Company (IKKCO*

);(Ehsan Naghashzadeh - *Quality Manager, Iran Khodro Khorasan Company (IKKCO*

خلاصه مقاله:

In this research, using Sustainable Development Criteria method, the sustainability index of diesel, biodiesel and hydrogen for internal combustion engines, is compared. This method is a useful tool for comparing and improving energy-based systems, which includes three main categories of ecology, sociology and technological indicators and a total of 30 sub-indicators. The score of each index indicates the level of consistency of the process under consideration in the scope of that index. As each element or process is more compatible, the more points it receives. Hence scores are assigned in the interval of 0 and 1. The number 0 indicates the least compatibility and sustainability and the number 1 indicates the most compatibility and sustainability. In the evaluation indicators of this method, issues such as efficiency, production costs (extraction, processing and transportation) and the amount of environmental pollution of each fuel are considered. So that each fuel has been analyzed from different aspects. The results of this study provide an effective approach to compare the sustainable development capacity of fuels used in diesel engines and thus the development of economical and eco- friendly fuels.

کلمات کلیدی:

.Sustainable Development, Eco- Friendly Fuels, Diesel Engines

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1772940>

