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15.03.89 Bulletin 89/11(71) Applicant: **Exxon Research and Engineering
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ESSO Engineering (Europe) Ltd. Patents &
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New Malden Surrey KT3 4DJ(GB)**(54) **Process for increasing the cetane number of diesel fuels.**

(57) The cetane number of a middle distillate fuel fraction is increased by contacting said fraction with oxygen or oxidant, in the presence of a catalyst, for a time sufficient to increase the cetane number. The catalyst selectively oxidizes benzylic carbon atoms present in the fuel to ketones. The fuel is preferably hydrorefined before being selectively oxidized.

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
D,X	US-A-4 494 961 (VENKAT et al.) * Claims 1,3,8-11; column 2, lines 21-59,64-65 *	1,2,4	C 10 G 27/04 C 10 G 67/12 C 10 L 1/02
Y	---	10	
X	US-A-2 365 220 (SCHULTZ et al.) * Page 1, left-hand column, line 53 - right-hand column, line 24; claims *	1,2,3,4 ,6,7,9	
Y	---	8,10	
Y	BE-A- 835 374 (AB MYNAS-PETROLEUM) * Claims; page 3, paragraphes 2,3 *	8,10	
A	EP-A-0 236 021 (ENVIRONMENTAL RESEARCH AND TECHNOLOGY) * Abstract; claims *	1,10	
D,A	US-A-2 472 152 (FARKAS et al.) * Claims *	1-10	

			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			C 10 G C 10 L
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 19-12-1988	Examiner MICHIELS P.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	