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(71) Applicant (for all designated States except US): **SHELL OIL COMPANY** [US/US]; One Shell Plaza, P.O. Box 2463, Houston, TX 77252-2463 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MURRAY, Brendan, Dermot** [US/US]; 1118 Stoney Hill Drive, Houston, TX 77077 (US). **VAPORCIYAN, Garo, Garbis** [US/US]; One Shell Plaza, 910 Louisiana, Houston, TX 77002-4901 (US).

(74) Agent: **ADAMSON, Jennifer, D.**; SHELL OIL COMPANY, One Shell Plaza, P.O. Box 2463, Houston, TX 77252-2463 (US).

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(54) Title: HYDROCRACKING OF DIPHENYLALKANES

(57) Abstract: A hydrocracking process comprises the steps of reacting a diphenyl alkane having a formulation of RIR<sub>2</sub>C(Ph)-(C)<sub>n</sub>(H)<sub>m</sub>-C(Ph)R<sub>3</sub>R<sub>4</sub> with hydrogen using a catalyst comprising a metal selected from the group consisting of Group IB and Group VIII metal compounds, preferably on an acidic support, to produce alkylbenzene(s) having a structure of RIR<sub>2</sub>C(Ph)R<sub>5</sub> and R<sub>6</sub>(Ph)CR<sub>3</sub>R<sub>4</sub>; wherein the total number of carbon atoms for R<sub>5</sub> and R<sub>6</sub> is equal to n; wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> each is a H or a hydrocarbon group having 1-10 carbon atoms.



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