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- (71) Applicant: **LION COPOLYMER, LLC** [US/US]; 5955  
Scenic Highway, Baton Rouge, Louisiana 70805 (US).
- (72) Inventor; and  
(71) Applicant : **BURTON, Willie Charles** [US/US]; 5955  
Scenic Highway, Baton Rouge, Louisiana 70805 (US).
- (74) Agents: **BUSKOP, Wendy** et al.; Buskop Law Group, PC,  
4511 Dacoma Street, Houston, Texas 77092 (US).
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(54) Title: PROCESS FOR THE POLYOYMERIZATION OF ALPHA OLEFINS AND NON-CONJUGATED DIENES USING A TOLUENE FREE HOMOGENOUS CO-CATALYST SYSTEM WITH METALLOCENE PRO-CATALYSTS

(57) Abstract: A homogenous toluene free catalyst system for producing a polyolefin elastomer possessing a unique combination of properties employing a particular type of a metallocene catalyst. Also disclosed is a co-catalyst for activating the metallocene pro-catalyst employing a specific molar ratio of the components of the co-catalyst to the metal of the pro-catalyst.

INTERNATIONAL SEARCH REPORT

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<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - C08F 4/646 (2014.01) USPC - 526/160 According to International Patent Classification (IPC) or to both national classification and IPC</p>											
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) IPC(8) - C08F 4/64, 4/646, 210/16, 210/18 (2014.01) USPC - 526/89, 90, 93, 159, 160</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched CPC - C08F 4/64, 4/646, 210/16 (2014.01)</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Orbit.com, Google Patents, Google Scholar, Public AppFT and PatFT</p>											
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 6,225,427 B1 (BURTON et al) 01 May 2001 (01.05.2001) entire document</td> <td>1-22</td> </tr> <tr> <td>Y</td> <td>US 2005/0209417 A1 (MARKS et al) 22 September 2005 (22.09.2005) entire document</td> <td>1-22</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 6,225,427 B1 (BURTON et al) 01 May 2001 (01.05.2001) entire document	1-22	Y	US 2005/0209417 A1 (MARKS et al) 22 September 2005 (22.09.2005) entire document	1-22
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<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>									