

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7699909

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
TPC GROUP LLC	12/16/2022
RECEIVING PARTY DATA	
Name:	ECLIPSE BUSINESS CAPITAL LLC, AS COLLATERAL AGENT
Street Address:	333 W. WACKER DR., SUITE 950
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60606
PROPERTY NUMBERS Total: 43	
Property Type	Number
Patent Number:	10052608
Patent Number:	10035741
Patent Number:	9861976
Patent Number:	9650316
Patent Number:	9617366
Patent Number:	9617363
Patent Number:	9453089
Patent Number:	9856335
Patent Number:	9266980
Patent Number:	9908097
Patent Number:	8946361
Patent Number:	10035740
Patent Number:	10035136
Patent Number:	9902669
Patent Number:	9598655
Patent Number:	9505682
Patent Number:	9353025
Patent Number:	9309339
Patent Number:	9074026
Patent Number:	9115038

Property Type	Number
Patent Number:	8524843
Patent Number:	9809665
Patent Number:	6858188
Patent Number:	7037999
Patent Number:	6777506
Patent Number:	6844400
Patent Number:	6844401
Patent Number:	7329635
Patent Number:	10155704
Patent Number:	10538466
Patent Number:	10526259
Patent Number:	10544071
Patent Number:	10836690
Patent Number:	10947324
Patent Number:	11326004
Patent Number:	11208511
Patent Number:	6884858
Patent Number:	7091285
Patent Number:	7056990
Patent Number:	7498396
Patent Number:	7645847
Patent Number:	6992152
Patent Number:	6683138

CORRESPONDENCE DATA

Fax Number: (312)863-7867

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 3128637267

Email: jaclyn.di.grande@goldbergkohn.com

Correspondent Name: JACLYN DI GRANDE - PARALEGAL

Address Line 1: GOLDBERG KOHN LTD.

Address Line 2: 55 E MONROE ST., STE 3300

Address Line 4: CHICAGO, ILLINOIS 60603

ATTORNEY DOCKET NUMBER:	7528.022
NAME OF SUBMITTER:	JACLYN DI GRANDE
SIGNATURE:	/jaclyn di grande/
DATE SIGNED:	12/16/2022

Total Attachments: 7

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**GRANT OF SECURITY INTEREST IN
UNITED STATES PATENTS**

THIS GRANT OF SECURITY INTEREST IN UNITED STATES PATENTS ("Patent Security Agreement") dated as of December 16, 2022 is made by, TPC Group LLC, a Texas limited liability company, ("Grantor"), in favor of Eclipse Business Capital LLC, as Agent (as defined below).

W I T N E S S E T H:

WHEREAS, TPC Group Inc., a Delaware corporation, are parties to that certain Credit Agreement dated as of December 16, 2022 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), with the other Borrowers party thereto from time to time, the Lenders party thereto from time to time, and Eclipse Business Capital LLC, as administrative agent and collateral agent for the Lenders (in such capacity, the "Agent");

WHEREAS, as a condition precedent to their entering into the Credit Agreement, the Agent and the Lenders thereunder required the Loan Parties to execute and deliver that certain Pledge and Security Agreement dated as of December 16, 2022 (as heretofore or hereafter amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement"); and

WHEREAS, pursuant to the Security Agreement, the Grantor pledged and granted to the Agent for the benefit of the Agent and the Lenders a continuing security interest in all Intellectual Property Collateral, including the Patents (as defined below);

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor hereby agrees as follows:

Section 1. Definitions. Each capitalized term used herein and not otherwise defined herein shall have the meaning assigned to such term in the Security Agreement or, if not defined herein or in the Security Agreement, in the Credit Agreement.

Section 2. Grant of Security Interest. To secure the prompt and complete payment, performance and observance of all of the Secured Obligations, Grantor hereby grants, assigns, conveys, mortgages, hypothecates and transfers to Agent, a security interest in and Lien upon all of such Grantor's right, title and interest in, to and under the United States patents set forth on Schedules A and B attached hereto (the "Patents"), together with all Proceeds therefrom, provided that there shall be no grant or pledge of a security interest in, nor shall the Patents include, any Excludable Property.

Section 3. Purpose. This Patent Security Agreement is made to secure the full and prompt performance and payment of all the Secured Obligations. Upon the occurrence of the Termination Date or as otherwise provided in the Security Agreement, the Agent shall, upon such satisfaction, execute, acknowledge, and deliver to the Grantor an instrument in writing releasing the security interest in and re-assigning the Patents acquired under this Patent Security Agreement to Grantor.

Section 4. Acknowledgement. The rights and remedies of the Agent with respect to the security interest granted herein are more fully set forth in the Security Agreement. In the event that any provisions of this Patent Security Agreement are deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall govern.

Section 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts and by the different parties hereto on separate counterparts, each of which counterparts, when so executed and delivered, shall be deemed to be an original and all of which counterparts, taken together, shall constitute but one and the same original.

Section 6. Governing Law. THIS PATENT SECURITY AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

[Signature pages follow]

IN WITNESS WHEREOF, the undersigned has executed this Patent Security Agreement
as of the date first written above.

TPC GROUP LLC

By: 

Name: Bart de Jong

Title: Senior Vice President and Chief Financial Officer

ECLIPSE BUSINESS CAPITAL LLC, as Agent

By: 

Name: John Whetstone

Title: EVP

Schedule A

U.S. Registered Patents and Patent Applications

Title	App. No./ Reg. No.
Low emissions oxidative dehydrogenation apparatus for producing butadiene	10052608
High throughput oxidative dehydrogenation process	10035741
Regeneration of oxidative dehydrogenation catalyst in a reactor	9861976
Low emissions oxidative dehydrogenation process for producing butadiene	9650316
Low-fluoride, reactive polyisobutylene	9617366
Low-fluoride, reactive polyisobutylene	9617363
Production of highly reactive low molecular weight PIB oligomers	9453089
Production of highly reactive low molecular weight PIB oligomers	9856335
Polyisobutylene prepared at high velocity and circulation rate	9266980
Controllability oxidative dehydrogenation process for producing butadiene	9908097
Polyisobutylene prepared at high velocity and circulation rate	8946361
Multi-stage oxidative dehydrogenation process with inter-stage cooling	10035740
Catalyst for reduced nitrogen oxide (NOx) emissions in an oxidehydrogenation process	10035136
Oxidative dehydrogenation process with hydrocarbon moderator gas and reduced nitrogen feed	9902669
Adducts of low molecular weight PIB with low polydispersity and high vinylidene content	9598655
Manufacture of butadiene from ethylene	9505682
Process for selective removal of acetylenes from gaseous streams	9353025
Mid-range vinylidene content, high viscosity polyisobutylene polymers	9309339
Polyisobutylene prepared with low diluent content reaction medium	9074026
Process for selective removal of acetylenes from gaseous streams	9115038
Production of highly reactive low molecular weight PIB oligomers	8524843
Polyisobutylene production process with improved efficiencies and/or for forming products having improved characteristics and polyisobutylene products produced thereby	9809665
Apparatus for preparing polyolefin products and methodology for using the same	6858188
Mid-range vinylidene content polyisobutylene polymer product and process for producing the same	7037999

Title	App. No./ Reg. No.
Apparatus for preparing polyolefin products and methodology for using the same	6777506
Apparatus for preparing polyolefin products and methodology for using the same	6844400
Apparatus for preparing polyolefin products and methodology for using the same	6844401
Crude oil composition including dispersant material for mitigating fouling of process equipment and method for mitigating crude oil fouling	7329635
Processes and apparatuses for production of butadiene ¹	10155704
Use of C4 absorber overhead for stripping aldehydes ²	10538466
Staged pressure for butadiene reactors to enhance energy recovery ³	10526259
Heat recovery in the process of production of butadiene ⁴	10544071
Dehydrogenation process and system with reactor re-sequencing	10836690
Flexible Manufacturing System for Selectively Producing Different Linear Alpha Olefins	10947324
Isobutylene Copolymers, Method for Making Isobutylene Copolymers and Isobutylene Copolymer Products	11326004
Non-Random Isobutylene Copolymers	11208511
PROCESS FOR PREPARING POLYOLEFIN PRODUCTS	6884858

¹ Patent owned by both TPC Group LLC and UOP LLC

² Patent owned by both TPC Group LLC and UOP LLC

³ Patent owned by both TPC Group LLC and UOP LLC

⁴ Patent owned by both TPC Group LLC and UOP LLC

Schedule B

U.S. Registered Patents and Patent Applications (Expired as of the Closing Date)

Title	App. No./ Reg. No.
Adducts of mid-range vinylidene content polyisobutylene polymer products and methods for making the same	7091285
Process for producing mid-range vinylidene content polyisobutylene polymer products	7056990
Mid-range vinylidene content polyisobutylene polymer product produced by liquid phase polymerization process	7498396
Process for preparing polyolefin products	7645847
APPARATUS AND METHOD FOR CONTROLLING OLEFIN POLYMERIZATION PROCESS	6992152
PROCESS FOR PRODUCING HIGH VINYLIDENE POLYISOBUTYLENE	6683138