

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3945204

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the THIRD ASSIGNOR'S NAME previously recorded on Reel 035631 Frame 0676. Assignor(s) hereby confirms the THIRD ASSIGNOR'S MIDDLE INITIAL "A" CORRECTED TO --V--..
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MICHAEL D. IRWIN	05/11/2015
JERRED A. CHUTE	05/12/2015
VIVEK V. DHAS	05/12/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	HUNT ENERGY ENTERPRISES, L.L.C.
<b>Street Address:</b>	1900 N. AKARD STREET
<b>City:</b>	DALLAS
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	75201
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14711391
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(214)661-4688
<i>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.</i>	
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<b>Correspondent Name:</b>	BRADLEY P. WILLIAMS
<b>Address Line 1:</b>	2001 ROSS AVENUE SUITE 600
<b>Address Line 2:</b>	BAKER BOTTS
<b>Address Line 4:</b>	DALLAS, TEXAS 75201
<b>ATTORNEY DOCKET NUMBER:</b>	081546.0160
<b>NAME OF SUBMITTER:</b>	ELODY TIGNOR
<b>SIGNATURE:</b>	/Elody Tignor/
<b>DATE SIGNED:</b>	07/01/2016
<b>Total Attachments: 7</b>	
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## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3352101

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MICHAEL D. IRWIN	05/11/2015
JERRED A. CHUTE	05/12/2015
VIVEK A. DHAS	05/12/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	HUNT ENERGY ENTERPRISES, L.L.C.
<b>Street Address:</b>	1900 N. AKARD STREET
<b>City:</b>	DALLAS
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	75201
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14711391
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Phone:</b>	214.953.6500
<b>Email:</b>	ptomail1@bakerbotts.com
<b>Correspondent Name:</b>	BAKER BOTTS L.L.P.
<b>Address Line 1:</b>	2001 ROSS AVENUE
<b>Address Line 2:</b>	SUITE 600
<b>Address Line 4:</b>	DALLAS, TEXAS 75201-2980
<b>ATTORNEY DOCKET NUMBER:</b>	081546.0160
<b>NAME OF SUBMITTER:</b>	CHRISTI PINGLETON
<b>SIGNATURE:</b>	/Christi Pingleton/
<b>DATE SIGNED:</b>	05/13/2015
<b>Total Attachments: 4</b>	
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**ASSIGNMENT**

**WHEREAS**, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, said application having been executed on the date set forth below; and

**WHEREAS**, Hunt Energy Enterprises, L.L.C. (hereinafter referred to as "Assignee"), a Delaware limited liability company, with an address 1900 N. Akard Street, Dallas, Texas 75201, desires to acquire my entire right, title and interest in and to the invention, and in and to the said application and any Letters Patent that may issue thereon;

**NOW, THEREFORE**, for and in consideration of One United States Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I assign to Assignee, all right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all divisions, reissues, continuations, and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as our interest is concerned, to Assignee.

I also assign to Assignee, all right, title and interest to the invention disclosed in said application throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries; and I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in Assignee.

I will communicate to Assignee any facts known to me respecting any improvements; and, at the expense of Assignee, I will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make lawful oaths and declarations, and generally do everything possible to vest title in Assignee and to aid Assignee to obtain and enforce proper protection for said invention in all countries.

This Assignment shall be binding on the parties' successors, assigns and legal representatives.

ATTORNEY DOCKET NO.  
081546.0160

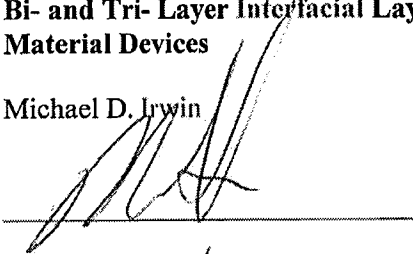
ASSIGNMENT

2 of 4

Title of Invention: **Bi- and Tri- Layer Interfacial Layers in Perovskite  
Material Devices**

Full name of inventor: Michael D. Irwin

Inventor's signature:



Date:

5/11/15

Residence (City, State): Dallas, Texas

Post Office Address:

~~9323 Highedge Circle~~ 9874 Ravensway Dr  
Dallas, Texas 75238

ATTORNEY DOCKET NO.  
081546.0160

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3 of 4

Title of Invention: **Bi- and Tri- Layer Interfacial Layers in Perovskite  
Material Devices**

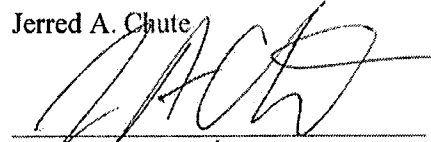
Full name of inventor: Jerred A. Chute

Inventor's signature:

Date:

Residence (City, State):

Post Office Address:

  
05/12/2015

Dallas, Texas

6617 Highgate Lane  
Dallas, Texas 75214

ATTORNEY DOCKET NO.  
081546.0160

ASSIGNMENT

4 of 4

Title of Invention: **Bi- and Tri- Layer Interfacial Layers in Perovskite  
Material Devices**

Full name of inventor: Vivek V. Dhas

Inventor's signature:

V. V. Dhas

Date:

05 12 15

Residence (City, State): Dallas, Texas

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Active 19068860.1

RECORDED: 07/01/2016

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REEL: 039226 FRAME: 0960