

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Dan Waldron</td> <td>07/08/2008</td> </tr> <tr> <td>David McGarel</td> <td>07/08/2008</td> </tr> <tr> <td>Robert Hensley</td> <td>07/08/2008</td> </tr> <tr> <td>Chris Peterson</td> <td>07/09/2008</td> </tr> </tbody> </table>		Name	Execution Date	Dan Waldron	07/08/2008	David McGarel	07/08/2008	Robert Hensley	07/08/2008	Chris Peterson	07/09/2008
Name	Execution Date										
Dan Waldron	07/08/2008										
David McGarel	07/08/2008										
Robert Hensley	07/08/2008										
Chris Peterson	07/09/2008										
RECEIVING PARTY DATA											
Name:	First Trust Portfolios L.P.										
Street Address:	1001 Warrenville Road										
Internal Address:	Suite 300										
City:	Lisle										
State/Country:	ILLINOIS										
Postal Code:	60532										
PROPERTY NUMBERS Total: 1											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12106672</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12106672						
Property Type	Number										
Application Number:	12106672										
CORRESPONDENCE DATA											
Fax Number:	(312)775-8100										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Phone:	312-775-8000										
Email:	mhmpto@mcandrews-ip.com										
Correspondent Name:	MCANDREWS HELD & MALLOY, LTD										
Address Line 1:	500 WEST MADISON STREET										
Address Line 2:	SUITE 3400										
Address Line 4:	CHICAGO, ILLINOIS 60661										
ATTORNEY DOCKET NUMBER:	18528US02										
NAME OF SUBMITTER:	Yufeng Ma										

CH \$40.00 12106672

Total Attachments: 5

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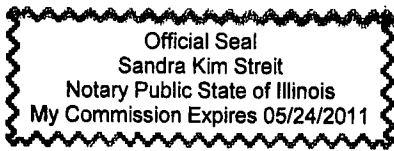
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cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment has not been made.

State of Illinois

County of DuPage

The foregoing instrument was acknowledged before me this 8th day of July, 2008 by Dan Waldron.



Sandra Kim Streit
Notary Public

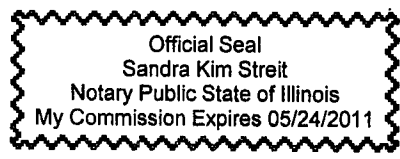
WITNESS my hand and seal this 8th day of July, 2008.

Dan Waldron
Dan Waldron

State of Illinois

County of PePage

The foregoing instrument was acknowledged before me this 8th day of July, 2008 by David McGarel.



Sandra Kim Streit
Notary Public

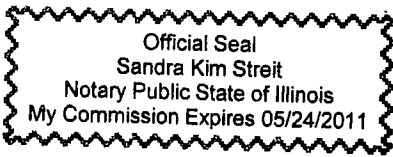
WITNESS my hand and seal this 8th day of July, 2008.

[Signature]
David McGarel

State of Illinois

County of Peoria

The foregoing instrument was acknowledged before me this 8th day of July, 2008 by Robert Hensley.



Sandra Kim Streit
Notary Public

WITNESS my hand and seal this 8th day of July, 2008.

Robert Hensley
Robert Hensley

State of Illinois

County of PuPage

The foregoing instrument was acknowledged before me this 9th day of July, 2008 by Chris Peterson.



Sandra Kim Streit
Notary Public

WITNESS my hand and seal this 9th day of July, 2008.

Chris Peterson
Christopher Peterson