

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
CFD Research Corporation	08/30/2006
RECEIVING PARTY DATA	
Name:	Optomec Design Company
Street Address:	3911 Singer Boulevard, N.E.
City:	Albuquerque
State/Country:	NEW MEXICO
Postal Code:	87109
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	11317457
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## EXHIBIT 2.2

### **ASSIGNMENT OF INVENTION AND PATENT RIGHTS**

For valuable consideration received or to be received, and hereby acknowledged, CFD Research Corporation, Cummings Research Park, 215 Wynn Drive, Huntsville, Alabama 35805 (hereinafter referred to as "Assignor"), hereby sells, assigns and transfers unto Optomec Design Company, 3911 Singer Boulevard, N.E., Albuquerque, New Mexico 87109, its successors and assigns (hereinafter referred to as "Assignee"), the entire interest for the United States of America and all foreign countries, including all rights of priority under the international conventions and treaties, in and to certain inventions or improvements described in applications filed as follows:

1) *Direct Write™ System*, described in an application filed in the United States Patent and Trademark Office on February 5, 2002, and given U.S. Patent Application Serial No. 10/072,605. Inventors: Michael J. Renn, Bruce H. King, Manampathy G. Giridharan, Jyh-Cherng Sheu;

2) *Particle Guidance System*, described in an application filed in the United States Patent and Trademark Office on October 21, 2003, and given U.S. Patent Application Serial No. 10/691,341. Inventors: Michael J. Renn, Gregory J. Marquez, Bruce H. King, Manampathy G. Giridharan, Jyh-Cherng Sheu;

3) *Apparatuses, Methods and Precision Spray Processes for Direct Write and Maskless Mesoscale Material Deposition*, described in an application filed in the United States Patent and Trademark Office on December 23, 2003, and given U.S. Patent Application Serial No. 10/746,646. Inventors: Michael J. Renn, Bruce H. King,

Marcelino Essien, David M. Keicher, Gregory J. Marquez, Manampathy G. Giridharan, Jyh-Cherng Sheu;

4) *Direct Write™ System*, described in an application filed in the United States Patent and Trademark Office on August 9, 2004, and given U.S. Patent Application Serial No. 10/914,525. Inventors: Michael J. Renn, Bruce H. King, Manampathy G. Giridharan, Jyh-Cherng Sheu;

5) *Direct Write™ System*, described in an application filed in the United States Patent and Trademark Office on September 20, 2004, and given U.S. Patent Application Serial No. 10/945,416. Inventors: Michael J. Renn, Manampathy G. Giridharan, Jyh-Cherng Sheu;

6) *Laser-Processing for Heat-Sensitive Mesoscale Deposition*, described in an application filed in the United States Patent and Trademark Office on September 27, 2004, and given U.S. Patent Application Serial No. 10/952,108. Inventors: Michael J. Renn, Bruce H. King, Marcelino Essien, Manampathy G. Giridharan, Jyh-Cherng Sheu;

7) *Laser Processing for Heat-Sensitive Mesoscale Deposition*, described in an application filed in the U.S. Receiving Office of the Patent Cooperation Treaty on September 27, 2004, and given Patent Cooperation Treaty Application Serial No. PCT/US04/31803. Applicants: Optomec Design Company, Michael J. Renn, Bruce H. King, Marcelino Essien, Manampathy G. Giridharan, Jyh-Cherng Sheu;

8) *Laser Treatment Process for Maskless Low-Temperature Deposition of Electronic Materials*, described in an application filed in the Taiwan Patent Office on September 24, 2004, and given Taiwan Serial No. 93128970, issued November 1, 2005,

as Taiwan Patent No. I 242606. Inventors: Michael J. Renn, Bruce H. King, Marcelino Essien, Manampathy G. Giridharan, Jyh-Cherng Sheu;

9) *Annular Aerosol Jet Deposition Using an Extended Nozzle*, described in an application filed in the United States Patent and Trademark Office on December 13, 2004, and given U.S. Patent Application Serial No. 11/011,366. Inventors: Bruce H. King, Michael J. Renn, Marcelino Essien, Gregory J. Marquez, Manampathy G. Giridharan, Jyh-Cherng Sheu;

10) *Maskless Direct Write of Copper Using an Annular Aerosol Jet*, described in an application filed in the United States Patent and Trademark Office on September 27, 2004, and given U.S. Patent Application Serial No. 10/952,107. Inventors: Michael J. Renn, Bruce H. King, Manampathy G. Giridharan, Jyh-Cherng Sheu;

11) *Apparatuses and Method for Maskless Mesoscale Material Deposition*, described in an application filed in the United States Patent and Trademark Office on December 22, 2005, and given U.S. Patent Application Serial No. 11/317,457. Inventors: Michael J. Renn, Bruce H. King, Marcelino Essien, Gregory J. Marquez, Manampathy G. Giridharan, Jyh-Cherng Sheu;

12) *Maskless Direct Write of Copper Using an Annular Aerosol Jet*, described in an application filed in the U.S. Receiving Office of the Patent Cooperation Treaty on September 27, 2005, and given Patent Cooperation Treaty Application Serial No. PCT/US05/34323. Applicants: Optomec Design Company, Michael J. Renn, Bruce H. King, Manampathy G. Giridharan, Jyh-Cherng Sheu;

13) *Maskless Direct Write of Copper Using an Annular Aerosol Jet*, described in an application filed in the Taiwan Patent Office on September 27, 2005, and given

Taiwan Serial No. 94133310. Inventors: Michael J. Renn, Bruce H. King, Manampathy G. Giridharan, Jyh-Cherng Sheu;

14) *Laser Processing for Heat-Sensitive Mesoscale Deposition of Oxygen-Sensitive Materials*, described in an application filed in the United States Patent and Trademark Office on May 8, 2006, and not yet issued a serial number. Inventors: Michael J. Renn, Bruce H. King, Marcelino Essien, Manampathy G. Giridharan, Jyh-Cherng Sheu;

and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said inventions, or any parts thereof, or on said applications, or on any provisional, utility, divisional, continuing, continuation-in-part, reissue, reexamination or other applications based in whole or in part thereon. And Assignor agrees hereafter to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper in Assignee's sole discretion to secure to Assignee the grant of Letters Patent in the United States and/or in other countries as Assignee may determine in its sole discretion, with specifications and claims in such form as shall be approved by Assignee's counsel, and to vest and confirm in Assignee the legal and equitable title and full use and benefit of all such patents.

Assignor hereby authorizes and requests the attorneys of record in said applications to insert in this Assignment serial number of said applications when officially known.

Assignor further agrees with Assignee that this Assignment covers all processes, specifications, procedures, techniques and other knowledge and information now or hereafter known to Assignor which are not in the public domain and which relate to the

above-mentioned inventions or improvements, their manufacture, uses or embodiments, or other matters (the "Related Know-How"). Assignor agrees to disclose or provide all Related Know-How to Assignee when discovered or upon request.

Assignor further covenants that Assignee will, upon its request, be provided promptly with all pertinent facts and documents relating to said applications, said inventions and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to Assignor and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to Assignee or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said applications, said inventions and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

Assignor's rights in the above-mentioned inventions or improvements and Related Know-How and any patent application(s) and Letters Patent thereon have not been previously assigned, mortgaged or otherwise encumbered, and Assignor has full right, power and authority to assign all such rights to Assignee hereunder.

As used herein, the terms "Assignor" and "Assignee" shall include such parties and their heirs, administrators, estates, successors and assigns of every kind.

Assignor hereby authorizes and requests the Director of the United States Patent and Trademark Office, and all foreign countries' equivalent officials, to issue such Letters Patent as shall be granted on said application or applications based thereon to Assignee.

DATED this 30<sup>th</sup> day of August, 2006, effective as of February 4,  
2002.

FOR CFD RESEARCH CORPORATION

Ashok K. Singhal

Name: ASHOK K. SINGHAL

Title: President

STATE OF ALABAMA

COUNTY OF MADISON

) ss.  
)

This instrument was acknowledged before me this 30 day of  
AUGUST, 2006, by SHERY DIANE WINFREE.

My commission expires:

03-04-09

SEAL

Sherry Diane Winfree  
Notary Public

**SHERY DIANE WINFREE  
NOTARY PUBLIC ALABAMA STATE AT LARGE  
MY COMMISSION EXPIRES 3-04-09**