

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO., LTD.  
Petitioner

v.

DANIEL L. FLAMM  
Patent Owner

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Patent No. RE 40,264 E

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**DECLARATION OF DR. STANLEY SHANFIELD IN SUPPORT OF  
PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. RE 40,264 E**

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I, Stanley Shanfield, declare as follows:

**I. INTRODUCTION**

1. I have been retained by Samsung Electronics Co., Ltd. (“Petitioner”) as an independent expert consultant in this proceeding before the United States Patent and Trademark Office (“PTO”).

2. My retention is through Rubin/Anders Scientific, Inc. (“Rubin”). Rubin bills \$385 per hour for my services in this matter, which is my regular and customary rate.

3. My compensation is in no way contingent on the nature of my findings, the presentation of my findings in testimony, or the outcome of this or any other proceeding. I have no other interest in this proceeding.

4. I have been asked to consider whether certain references disclose or suggest the features recited in the claims of U.S. Patent No. RE 40,264 E (“the ’264 Patent”) (Ex. 1001)<sup>1</sup>. My opinions are set forth below.

**II. BACKGROUND AND QUALIFICATIONS**

5. I am an independent consultant. All of my opinions stated in this declaration are based on my own personal knowledge and professional judgment.

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<sup>1</sup> Where appropriate, I refer to exhibits I understand are attached to the petition for *Inter Partes* Review of the ’264 patent.

In forming my opinions, I have relied on my knowledge and experience in designing, developing, and researching plasma processing systems.

6. I am over 18 years of age and, if I am called upon to do so, I would be competent to testify as to the matters set forth herein. A copy of my current curriculum vitae, which details my education and professional and academic experience, is attached as an addendum to this declaration. The following provides an overview of some of my experience that is relevant to the matters set forth in this declaration.

7. I received a B.S. in Physics from the University of California, Irvine in 1977. I received the University of California Regents Award for Outstanding Research Project for my experimental and theoretical work on rotating relativistic electron beams. Under full ERDA (DOE) scholarship, I received a Ph.D. in Physics from the Massachusetts Institute of Technology in 1981.

8. After receiving my doctorate degree, I worked at Spire Corporation in Bedford, Massachusetts from 1981-1984, where I served as a Staff Scientist, and later, a Senior Staff Scientist. At Spire, I developed new methods for low temperature deposition of plasma-assisted CVD epitaxial silicon. In addition, I built, operated, and characterized an ion-assisted deposition system for making coating for semiconductor and machine tool industries.

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