

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent of Wild:

U.S. Patent No. RE42,913

Issued: November 15, 2011

Title: OPTICAL DETECTION  
SYSTEM

Petition for *Inter Partes* Review

Attorney Docket No.: 351912-  
23.913-A

Customer No.: 26379

Petitioner: Toshiba Corporation

Real Parties In Interest: Toshiba  
Corporation; Toshiba America  
Information Systems, Inc.

**DECLARATION OF LAMBERTUS HESSELINK, PH.D., IN SUPPORT OF  
PETITION FOR *INTER PARTES* REVIEW**

## TABLE OF CONTENTS

	Page
I. Qualifications and Professional Experience .....	2
II. Background Of The '913 Patent .....	4
A. Background Of Optics .....	4
B. '913 Patent .....	7
III. Claim Construction .....	12
A. Level of Ordinary Skill in the Art .....	13
B. "Focal Plane" .....	13
C. "Retroreflection" .....	14
D. "Optical System" .....	14
E. "An Optical System Having Retroreflective Characteristics" .....	15
F. "Optical Gain" .....	15
G. Optical Gain In A Lens/Surface Retroreflector .....	19
IV. Overview of the Prior Art .....	21
A. U.S. Patent 3,506,839 ("Ando") .....	21
V. Anticipation of '913 Claims by Ando .....	24
A. Claim 48 .....	24
B. Claim 49 .....	30
C. Claim 50 .....	31
D. Claim 51 .....	31
E. Claim 52 .....	37
F. Claim 53 .....	37

I, Lambertus Hesselink, do hereby declare:

1. I am making this declaration at the request of Petitioner Toshiba Corporation (“Toshiba”) in the matter of *Inter Partes* Review of U.S. Patent No. RE42,913 (the “913 patent”) to Wild et al. in view of U.S Patent No. 3,506,839 (“Ando”).

2. I am being compensated for my work in this matter. My compensation in no way depends upon the outcome of this proceeding.

3. In the preparation of this declaration, I have studied:

- a. Exhibit TSST-1001, U.S. Patent No. RE42,913
- b. TOSH-1002, Prosecution File History for U.S. Patent No. RE42,913
- c. TOSH-1003, U.S. Patent No. 6,603,134
- d. TOSH-1004, Prosecution File History for U.S. Patent No. 6,603,134
- e. TOSH-1005, Patent Owner’s Preliminary Response in IPR2014-302
- f. TOSH-1006, Decision Denying Institution in IPR2014-302
- g. TOSH-1007, U.S Patent No. 3,506,839 (“Ando”)

4. In forming the opinions expressed below, I have considered the documents listed above and my knowledge and experience based upon my work in this area as described below.

**I. Qualifications and Professional Experience**

5. My qualifications are set forth in my curriculum vitae, a copy of which is attached to this declaration.

6. I am currently a Professor of Electrical Engineering in the Department of Electrical Engineering at Stanford University, and by courtesy in the Departments of Applied Physics and Aeronautics and Astronautics. My current mailing address is: CIS-X Room 325, Stanford University, Stanford, CA 94305.

7. With regards to my educational background, in 1970 I received a Bachelor of Science degree in Mechanical Engineering from the Twente Institute of Technology in Enschede, Netherlands, and a Bachelor of Science degree in Applied Physics from the same institution in 1971. The following year, I received my Master of Science degree in Mechanical Engineering from California Institute of Technology. In 1974, I obtained an Applied Mechanics engineering degree from the Twente Institute of Technology, and then I subsequently continued my studies at the California Institute of Technology and, in 1977, earned my doctorate degree in Applied Mechanics and Physics/Applied Physics.

8. My expertise is in ultra-high density optical data storage, and optical information systems generally, as well as optical communication components, nano photonics, optics, and optical interconnects. In addition to being an assistant, associate, or full Professor performing research in these fields for over 30 years, I have delivered over 290 invited presentations on these topics at scientific meetings, and have published over 500 papers in scientific journals and authored 15 book chapters. I also have more than 100 patents and pending patent applications worldwide. Details of these accomplishments can be found in my current curriculum vitae attached as Exhibit A to this report.

9. I have had an intimate knowledge of the technology in the area of optical systems since at least 1978. In connection with my professional activities, I am familiar with the various standards for optical media and technologies adopted by the industry, including the DVD Forum and DVD+RW Alliance standards. I also have studied and am familiar with the concepts utilized in the purported inventions claimed in the '913 patent.

10. I have reviewed the '913 patent and its parent patent (U.S. 6,603,134 – “the '134 patent”), their prosecution histories, and pertinent art from the field as discussed herein. I have considered these materials in forming the opinions expressed in this declaration, and also have drawn upon my wealth of experience

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