IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

WU et al.

S Interference No. 102,447
S V.
S Examiner-in-Chief:
CHU S Ronald H. Smith

## DECLARATION OF RU-LING MENG

Box Interference Commissioner of Patents and Trademarks Washington, D.C. 20231

Attention: Ronald H. Smith Examiner in Chief

Dear Sir

- I, RU-LING MENG, do hereby declare and state that:
- 1. I am currently a Senior Research Scientist, and Lab Manager of the Experimental Solid State Physics Lab of the Department of Physics, University of Houston, Texas and of the Texas Center for Superconductivity; a position I have held since 1987. Prior to that, during the period 1984 to 1986, I held the position of Research Associate, Department of Physics at the University of Houston, Texas, working under the supervision of Dr. C.W. Chu.
- 2. During a telephone call in about mid-December 1986, C.W. Chu described to me his belief that substitution of Y for La in a composition La-Ba-Cu-O would produce a composition of Y-Ba-Cu-O which superconducts at a  $T_{\rm c}$  temperature greater than that of a La-Ba-Cu-O composition.
  - 3. During a discussion which occurred in the office of Pei

Hor in late December 1986, after Christmas and before January 4, 1987, which was attended by myself, Pei Hor and Li Gao of the University of Houston, and by M.K. Wu of the University of Alabama, the concept of substitution of Y for La in a composition of La-Ba-Cu-O to produce a composition of Y-Ba-Cu-O which superconducts at a  $T_c$  temperature greater than that of a La-Ba-Cu-O composition was described to M.K. Wu.

- 4. Before January 17, 1987, I identified in my notebook several substituted compositions for production and examination. Among the compositions so identified is one of the formula  $Y_{1.2}Ba_{0.8}CuO_y$  as shown on Exhibit A attached hereto which is in my handwriting and made by me on a date prior to January 17, 1987. The date entered on Exhibit A has been masked out of the attached copy.
- 5. Further, on January 29, 1987, I identified further compositions for production and testing in accordance with Dr. Chu's direction to make compositions involving substitution for variously the La or Ba of a La-Ba-Cu-O composition by other small radii atomic elements as shown in Exhibit B attached hereto which was made by me and is in my handwriting. The amounts of reagents required for the production of compositions as shown in Exhibit B are shown in Exhibit C attached hereto, which is in my handwriting and made by me during January 29-30, 1987. Among the compositions considered for production are several formulations of Y-Ba-Cu-O, one of which is specifically of the formula Y<sub>1.2</sub>Ba<sub>0.8</sub>Cu<sub>1</sub>O<sub>v</sub>.
  - 6. In accordance with my prior calculations as recorded in

Exhibit C, I began to prepare compositions of Y-Ba-Cu-O one of which, designated as YB-102, was of the formula  $Y_{1.2}Ba_{0.8}Cu_1O_y$  as described in Exhibit C.

7. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the Chu Application or any patent issued thereon.

EXECUTED this 4 day of December, 1990.

RULING MENG

