# **The Final Research Report**

## 1. The Synopsis of Your Research

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Name	(in English) Truong Thi Anh Dao	Nationality	Vietnam		
	(in your native language) Trương Thị Anh Đào	Date of birth	May 26, 1959		
Field of research	Quantum Optics	Period of research	Sep. 1, 2006 – Aug.31, 2007		
Affiliation (Home institution)	(Institution) (Department) (Position)  Vietnamese Academy of Science Institute of Physics and Researcher and Technology (VAST) Electronics				
Project	(in English)  Quantum Chaos in Deformed Microcavities				
title	(in your native language)  Hỗn loạn lượng tử trong các hốc cộng hưởng vi mô biến dạng				
Host institution	Seoul National University	Department	School of Physics and Astronomy		
Host scholar	(Name) Prof.Kyung Won An (signature)				
Synopsis of your final research results	One of the behaviours to reach studying the quantum states is to consider them at the boundary of clasical mechanics whereas the applicability of clasical mechanics theory.  We propose the principle to build a deformed microcavity for reseach quantum properties in chaos medium to elucidate the interplay between wave and particle natures of light.  We have been used the deformed microcavity as a efficiency tool to study that chaos medium.  We have developed a chechnique for realizing a two dimensional quadupolar microcavity with its deformation variable from 0% to 20 % continuosly using a liquid jet ejected from concircular orifice. With this technique, we investigated the far field evolution depending on deformation parameter from regularity to chaos.				

### 2. Academic Activities

Please describe chronologically the academic activities you have participated in during the past year.

Dates (mm/dd/yy)	Title or Theme (conference, lecture, etc.)	Holding institution	Place	Activity or role
Sep.7,14, 2006	The journal club	Quantum - Field Laser	Room 25-114, SNU	
Oct.12, 2006	The Seminar	Lab., SNU	Room 25-114, SNU	
Oct.20-22, 2006	The Workshop		Muju resort	
Dec. 27, 2006	The Seminar		Room 25-313B, SNU	
Dec. 28, 2006	The journal club		Room 25-114, SNU	
Dec. 27, 2006	The Seminar		Room 25-313B, SNU	
Jan.10,17,24,	The Seminar		Room 25-313B, SNU	
2006				
Mar.7,14,21,28,	The Seminar		Room 25-313B, SNU	
2007				
April 4, 11, 18,	The Seminar		Room 25-313B, SNU	
25, 2007	The Colloquium	School of Physics- SNU	Room 129-104, SNU	Participate
April 11 ,2007.	The journal club	Quantum - Field Laser	Room 25-114, SNU	
		Lab., SNU		
March 12,26,	The journal club		Room 25-114, SNU	
2007				
Apr. 30, 2007	The Seminar		Room 25-313B, SNU	
May 9,16,23,29, 2007	The Seminar		Room 25-313B, SNU	
Jun. 23, 2007	The journal club		Room 25-114, SNU	
Jun. 25,2007	The Seminar		Room 25-313B, SNU	
July 11,18, 2007	The Seminar		Room 25-313B, SNU	
Others				

#### 3. The List of Your Recent Research

Please list chronologically any academic articles or books you have disseminated during the past year.

Title	Serial name (or Publisher)	Vol. No. (or Place)	Dates
		Sokcho- Gangwon do	July 18-20, 2007

#### 4. Plans for Dissemination of Your Research Results

Plans for	(Journal name scheduled to be published	ed in )	(vol.no./ date of issue)	
	Comm.Phys.Suppl. (Hanoi, Vietnam)		2007- 2008	
dissemination	(other plans for dissemination)			
Possible application for practical use of your research results	<ul> <li>Build up a efficient project to apply that research results in Institute of Physics, Hanoi, Vietnam.</li> <li>Invite Korean Professors to my Institute in Hanoi to lecture on Quantum Theories and Experiments</li> </ul>			
	(address) Room 715 B, Build. 946, Seoul National University			
Domicile	(additional file 2), Zaha. 7.0, Seoul Pullohal Chirototty			
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in your	(tel/ fax/ e-mail) Fax. 84 4 766 9050			
country Tel. 84 4 97 814 97 (at home), Mobi. 84 95 3310 497				
Other comments				
To the Korea l	Foundation for Advanced Studies:			
I, as a KFAS report.	S International Scholar Exchange Fello	wship laureate, h	ereby submit my final research	
2) co 3) ea 4) 1 4	printed hard copies of the final researce imputer file which has both files of 1) ch copy of any publications during the 4x5 cm. color photographs copy of curriculum vitae	and the final rese	arch report	
Sub	mission date (mm/dd/yy)08/10/07		Signature of laureate	