



Appendix G

INVESTMENT EQUIPMENT IN THREE YEARS



1. Investment list within near 3 years (2009-2011)

List 1 Equipment investment in Shanghai Key modern optics laboratory

Instrument Equipment Name	Quantity	Type	Unit Price(10,000 RMB)	Total Price(10,000 RMB)	Producing Area
Magnetron sputtering & RF sputtering equipment	1		32	32	China
Vacuum coating machine	1		80	80	Germany
Vacuum coating machine	10	DM45 OM	20	200	China
Gratings ruling machines	2	OFD	30	60	Britain
Long gratings ruling machines	2	TE3	15	30	Britain
Physical grating ruling machines	3	OFD	15	45	China
Ion etching machine	1	RIBE-S	40	40	China
The diffraction efficiency of Grating Tester	1	53W	12	12	China
0.2 ' goniometer	1		30	30	UK
Ball diameter instrument	2		5	10	China
Plane laser interferometers	1		8	8	China
OTF ester (optical transfer function)	1		40	40	USA
$\lambda-9$ spectrophotometer	1	$\lambda-9$	50	50	USA
3m optical benches	1		10	10	China
Wavefront interferometer	1		15	15	China
HP double-frequency laser	1	5528 A	20	20	USA



Planar, concave grating	5		2	10	USA
Holography System	2		10	20	China
Optical Spectrum Analyzer	1	86142	30	30	USA
Laser Power Meter	1	AGILE NT 81632 A	5	5	USA
Optical Fiber Fusion Splicer	1	S-175	5	5	USA
Tunable (C.L) Band Semiconductor Light Source	1		10	10	USA
The Type of TESS OE Optical Experiment System	5		2	10	Germany
Experimental Instrument of Laser Multifunctional Photoelectric Test System	8		5	40	China
Experimental Instrument of Photoelectric Sensor System	8		1	8	China
Optical Design Software-- Zemax	8	ZEMA X-EE	3	24	USA
Optical Design Software-- Synopsis	2		5	10	USA
Optical Design Software-- Kidge	2		5	10	USA
Optical Design Software-- OSLO& Database--LENSVIE W	1		8	8	USA



Optical Communication System Design Software-- VIP Transmission Maker	8		5.5	44	Germany
summary				916	

List 2 Equipments investment in Research Center of Optical Instruments and Systems

Instrument Equipment Name	Quantity	Model Number	Total Price (10,000 RMB)	Producing Area
OPTORUN Coating Machine	1	OTFC-900	330	Japan
Composite Sputtering System	1	FJL-560	55	China
Krypton Ion Lasers	1	coherent/INNOVA /saber SBRC-DBW-K	70	USA
ZYGO Interferometer	1	GPI-XP/D4	72	USA
The Scanning Electron Microscope	1	VEGA II SBU	75	Czech
Four-point Probe Tester	1	RTS-9	2	China
Light Path of Optical Bench	1		10	China
Outline of Film Thickness Meter	1	XP-1	25	USA
Atomic Profilometer	1	XE-100	35	Korea
Femtosecond Laser	1	Mira 900 F	120	USA
Laser Chillers	1	--	4.1	China
Optical Test System (THz system)	1	TDS-THz	78	China
Photoelectric Spectrometer	1	W	20	China
Optical Chopper	1	--	1.2	China



Displacement Signal Source	1	--	3.6	China
Standard Projector	1	--	3.4	Japan
Focal Length Meter	1	J-07	2.5	USA
Standard Cleaning Bench	6		20	China
Purification Studio	1	--	47.2	China
He-Ca Gas Lasers	1	HCL-15	3	China
The Device of Tube Type Air	1	SJX-1	2.6	China
Molecular Pump Units	1		4	China
Laser Power Meter	1		1.8	Israel
The CCD Imaging Device	1	QY-VSB	4.8	China
LED Light Distribution of Test System	1	GMS-108	5.1	China
Femtosecond laser amplifier (Purchasing)	1		180	USA
Beam Splitting System	2	--	2.4	China
Atomic Force of Microscope		AJ-3	22	China
Color Transmission of Density Meter		ZYMD-1B	1.2	China
Semiconductor Parameter Tester		PB011	80	USA
The Test System of Spectrum Integral Ball		FOIS-1	30	USA
summary			1310.9	



2. A portion of experimental equipments in the laboratory.

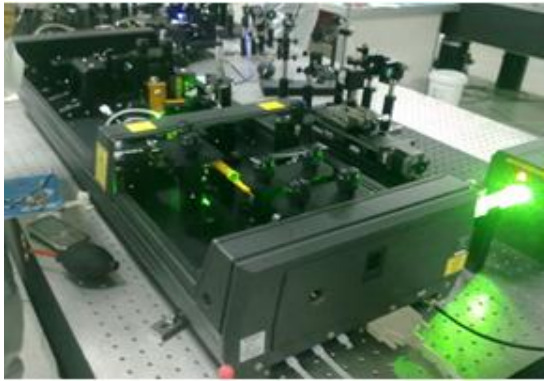


Fig1. Femtosecond laser

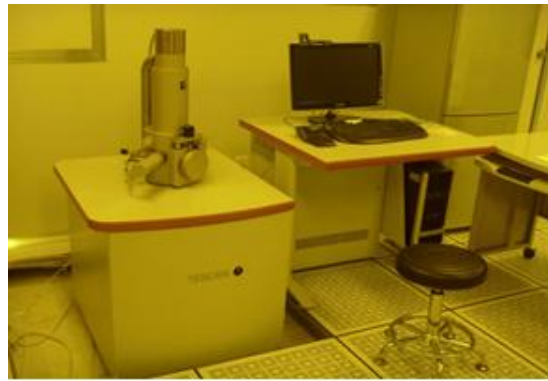


Fig2. Scanning electron microscope (SEM)



Fig3. OPTORUN coating machine



Fig4. Magnetron and ion beam sputtering coating machine

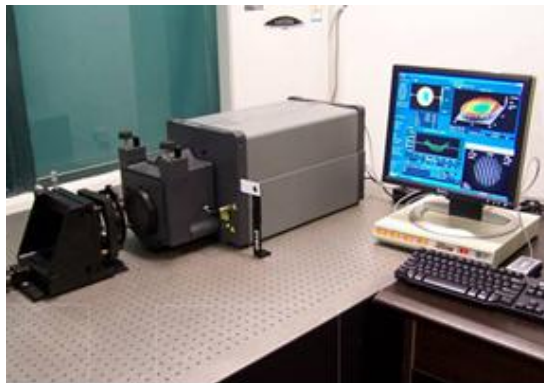


Fig5. Zygo Interferometer



Fig6. Atomic force microscope



Fig7. Ion beam etching machine



Fig8. Magnetron sputtering machine



Fig9. Spectrophotometer



Fig10. Stray light tester



Fig11. Optical fiber core-adjusted system

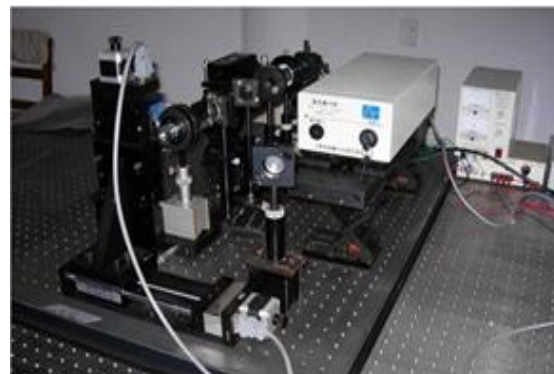


Fig12. Biochip detection system

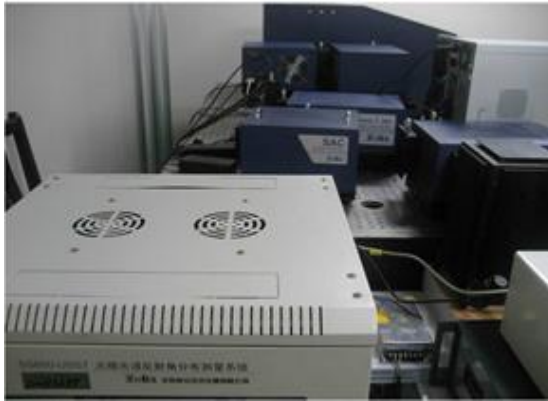


Fig.13. Grating spectrum reflected angle distribution measurement system



Fig.14. Grating ruling machine



Fig15. Theodolite comprehensive test bench



Fig16. Integrated vision tester