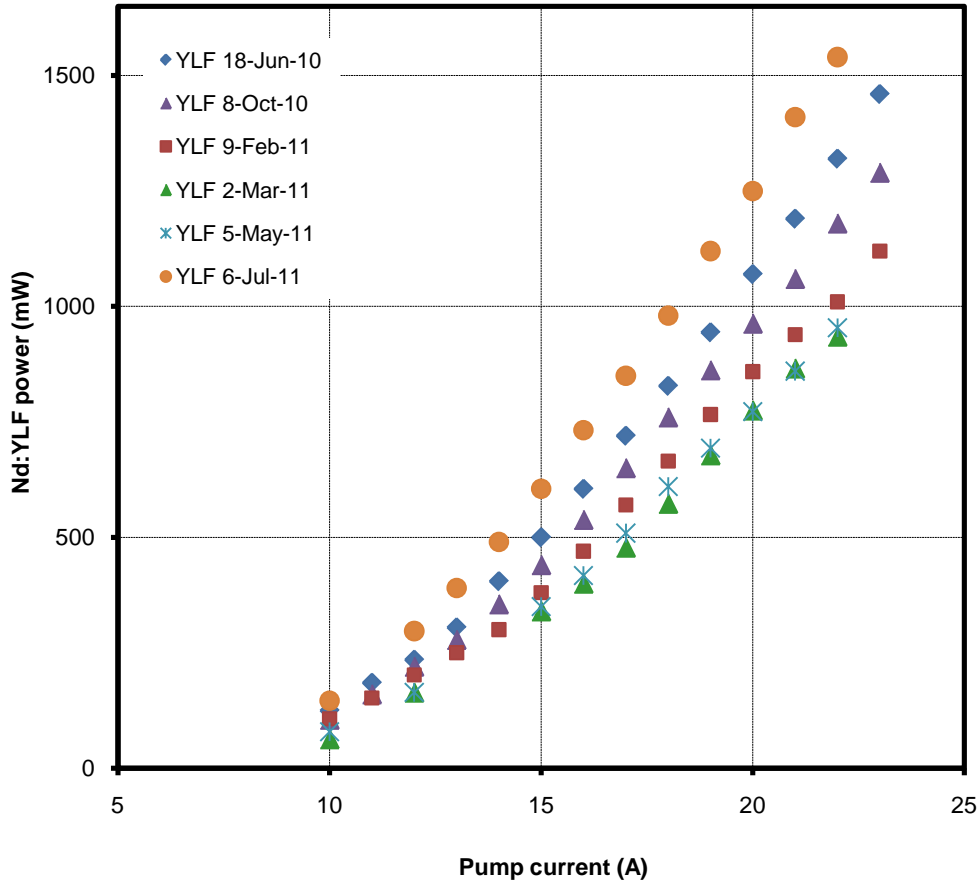


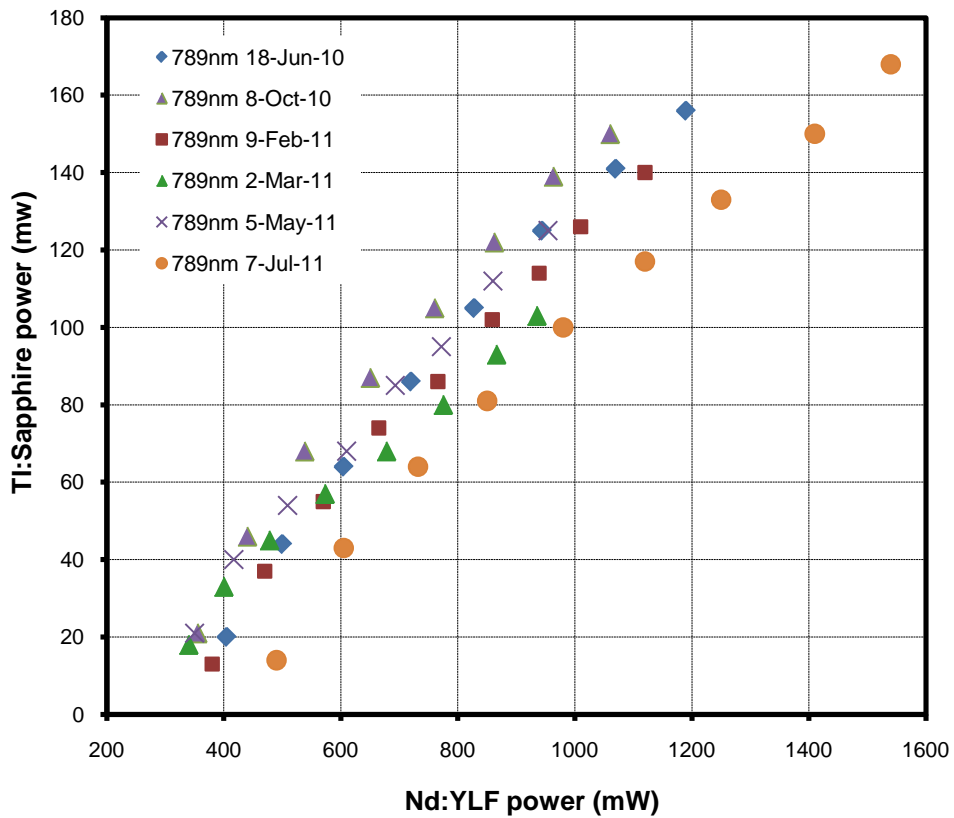
# Laser3

New CRYSTAL (Liyuan) ETM=30530hrs

### Nd:YLF LASERS 3



### Nd:YLF LASER PUMPED TI:S LASERS 3



Current A	YLF 6-Jul-11	789nm 6-Jul-11	789nm 7-Jul-11
7			
8			
9			
10	146		
11			
12	297		
13	390		
14	490		14
15	605	15	43
16	732	32	64
17	850	46	81
18	980	110	100
19	1120	80	117
20	1250	94	133
21	1410	106	150
22	1540	121	168
23	1670		

### YLF3 tuning new crystal

*Data of crystal from Quantronix from 8/8/2007*

current	power (W)	FWHM(ns)
19	14	480
20	16	421
21	17.5	377
22	19	342
23	20	319

12% T mirror

1) only crystal, no polarizer

A	power W
10	3.5
15	13
20	24.7
25	38
26	43

old crystal: 15A = 8 W

2) Polarizer + Sphe. Lens

A	power W
10	3.07
15	16.7
20	32
25	51

### 3) Cylindrical lens

check power then also beam shape. Should be round. First power too low. Rotate then OK.

A	power W
10	2.3
15	15
20	30
25	47.8

### 4) + Q-Switch

Check hold

All ON, RF and PRF

T(IR) 8.3 A

A	power W	hold off OK , RF ON , no PRF.
10	0.7	
15	6	
20	12	pulse double peak but ok
25	18	less double peak

### 4) HT/HR mirror CW

A	power (W)
20	26.5
25	40

### 5) LBO CW

difference with previous step should be less than 5W

A	power (W)
10	2
15	12.4
20	24
25	38.7

### 5) 1 KHZ

T(green) = 8.3A

A	power (W)
10	0.57
15	4.2
20	9.7
25	16.9