

EE 491 Weekly Report

**MAY15-29**      **Week 2 (9/8/14-9/14/13)**

---

**Advisors:**            Meng Lu                            **Client:**

**Members (roles):**    Wenbing Ma, Jiangxiang Zhang, Xuan Zhang (Webmaster) ,  
Zhikai Cui (Leader), Chenyin Liu(sample holder design)

**Project Title:**    A high resolution two-dimensional ultrasonic detector using  
plasmonic crystals

---

**Weekly Summary:**    **The group talked about the detail of doing project, about the material for sample holder, material for photo detector.**

### **Meeting notes:**

9/13      **Group Meeting with Advisor**

**Duration:** 80 min

**Members Present:** All

**Purpose and Goals:** Accomplish detail for everyone. Try to solve solve each problem before members facing it.

**Achievements:** Members got the idea about what to do for each part.  
Get access to the lab.

### **Pending issues**

1. Not enough space in the lab.
  - Will remove couple devices and stuffs which are not being used.
2. Will be sample holder removable?
3. Need to know the size of the optimaical table.
4. Need to get the datasheet about funciton generator.
5. Need to check which material for making sample holder.
- 6 Need to check what is the wavelength of the laser.

### **Plans for next week**

Zhikai Cui, Wenbing Ma

- Figure out how to drive the data from the scope to computer.
- Figure out how to write Logical Code on LabView

Jingxiang Zhang and Zhikai Cui

- Go to MRC and do PDMS samples.

Chenyin Liu, Xuan Zhang

- Find the exact size for designing the sample holder by Solidworks.

### **Other notes**

1. For sample holder, We would need three legs to support the holders and also to fit the holes of optics table. It can be made of either Al or plastic material.
2. The sample is 25.4mm \* 25.4 mm
3. Material for sample will be PDMS.
4. The wavelength for the laser will be near infrared.

### **Individual Contributions (this week)**

Wenbing Ma attended the meeting (1.5hr) Visit the lab be familiar with the instrument in the lab(1hr)

Jingxiang Zhang attended the meeting(1.5hr), obtained the access to laboratory, visited the Lab(1hr)

Xuan Zhang attended the meeting.(1.5hr) Visit the lab.(0.5hr) Started to learn to use Solidworks.(0.5hr)

Zhikai Cui attended the meeting(1.5hr) and showed other members the situation of the lab and manage to get keys access to lab for them(1hr).

Chenyin Liu attended the meeting(1.5hr), study tutorial of Solid work(0.5hr),

### **Total contributions for the project**

Wenbing Ma ( 2.5hr)

Jiangxiang Zhang ( 2.5hr)

Xuan Zhang (2.5hr)

Zhikai Cui (2.5 hr)

Chenyin Liu (2.5 hr)