EE 492 Weekly Report 2

MAY15-29 Week 3&4 1/26/2015 - 2/8/2015

Advisors: Meng Lu

Members (roles): Wenbing Ma(Detection Part), Xuan Zhang (Detection Part, Webmaster) , Zhikai Cui (Leader, Detection Part), Chenyin Liu(Generation Part, Documentation), Jiangxiang Zhang (Generation Part)

Project Title: Ultrasonic detector using photonic crystals

Weekly Summary : For this two weeks, we have worked on adjust the alignment for the detection part and it has almost done. We are getting much closed to what we expect.

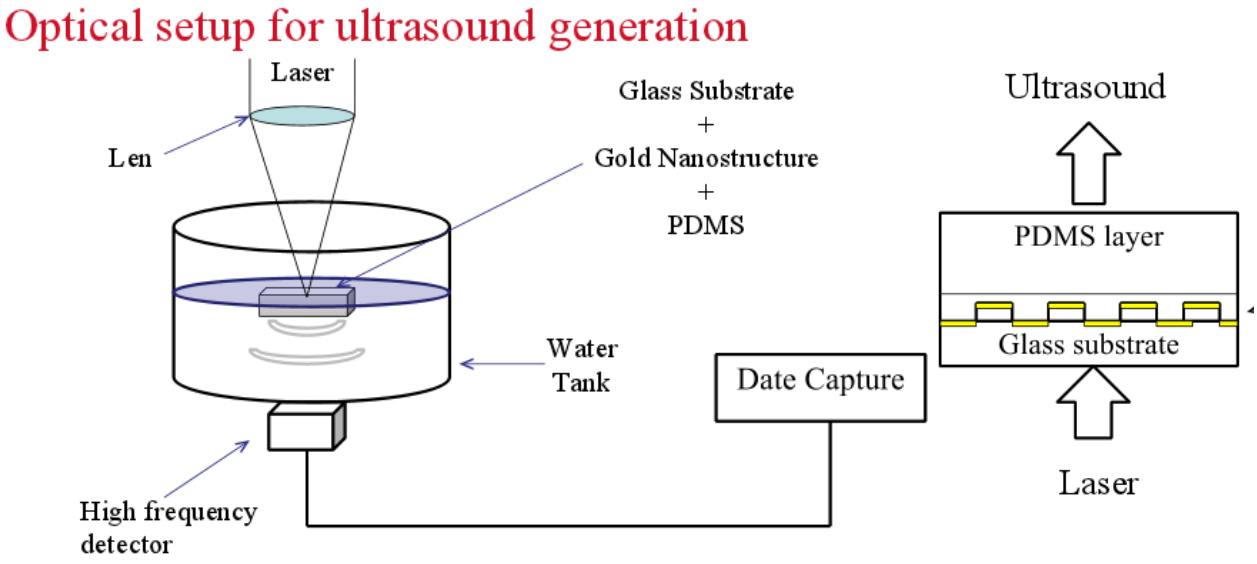
Meeting notes:

1/28 & 2/4 Group Meeting with Advisor Dr. Lu Meng

Duration: *60min* **Members Present:** *All*

Achievements:

1. Development of optoacoustic detection system is getting nearly to what we expect.
2. Pulsed laser ultrasound generator is getting started on track.
3. Then we compare for performance of air thermal expansion to PDMS.



Pending issues

1. We are adjusting the angle for the laser wave right now.
2. Preparing for the generation part.
3. Investment into Plasmonics for enhancement of ultrasound generation. For plasmonic, the metal-dielectric material, same function as PC Structure.
4. Options for the nanoparticle, we can use both gold or carbon.

Plans for next week

1. Continuing adjust the alignment for the detection part.
2. Generation part works continues.

Individual Contributions (this two week)

- Wenbing Ma attended the meeting(1hr), adjust the alignment for detection part.(10hr)
- Jingxiang Zhang attended the meeting(1hr), find the methods to get the pulse generator.(12hr)
- Xuan Zhang attended the meeting.(1hr) , adjust the alignment for detection part.(10hr)
- Chenyin Liu attended the meeting.(1hr), find the methods to get the pulse generator.(12hr)
- Zhikai Cui attended the meeting.(1hr), adjust the alignment for detection part.(10hr)

Total contributions for the project

Wenbing Ma (11 hr)
Jingxiang Zhang (13hr)
Xuan Zhang (11hr)
Zhikai Cui (11hr)
Chenyin Liu (13hr)