

## SSF project progress meeting minutes – 20150324

### Participants:

Johan Liu, Per Hyldgaard, Zhibin Zhang, Jan Stake, Andrei Vorobiev, Michael Andersson, Marlene Bonmann, Jian Yang, Murali Murugesan, Di Jiang, Wei Mu, Yong Zhang, Nan Wang, Shuangxi Sun, Ankit Nalin Mehta, Vaiva Nagyte, Yifeng Fu

- Project homepage is updated which now allows downloading of deliverables, PPTs and meeting notes by all partners.
- The first review meeting will take place on May 28, at 2pm in C520 in MC2. The meeting will be around 1 hour.
  - JL will do the presentation and all partners ready for questions.
  - PPT will be prepared by JL with inputs from all partners. A few points to be included and highlighted based on current progress meeting PPT: interactions & collaborations among partners, publications especially cross-group publications, new recruitments and financial status.
  - Rehearsal will be arranged by telephone meeting, May 13rd at 10am. Details will be sent by JL.
- Why GaN in the project: GaN as a wide bandgap semiconductor allows more efficient RF power applications and is expected to play very important role in future smart systems. JL group has developed through via technology using carbon nano-materials for Si based technology for 3D packaging and now is trying to move the technology to GaN.
- System integration strategy: we go for SiP rather than SoC, i.e. graphene mixer and amplifier will be integrated on TGV interposer. Graphene based glue from JL could be introduced for chip bonding.
- Requirement on GaN substrate: must be high-resistivity and insulating. Epi-GaN wafer will be applied to start with. Individual meeting between JL and JS will be arranged for discussion of circuit and process design. We need to make detailed process in which we see who is responsible for what. Jian and Di. Di is going to arrange this with the help of Yifeng and Andre.
- ZZ will share the new graphene transfer method enabling impurity-free graphene. ZZ will send slides in PPT format to JL.
- JL and ZZ will set up individual meeting to discuss further decrease of graphene flake size and stabilizer. Yifeng helps to arrange this.
- Individual meeting will be arranged between JL and PH for CNT doping and functionalization.
- Next meeting:
  - June 8 at 10am, telephone meeting.
  - Sept. 22 from 10am, consortium meeting in MC2.