Agenda of OpenPICs WP 4 meeting 06-03-2017

Present: Longfei, Weiming, Rui, Steven, Rob, Rene, Tjiebbe, Robert, Huub, Kevin

Discussion/action points

Nr.	Description	Responsible
1.	**Al-MQW** We will focus mainly on modulator epi with Al-MQW in this project. Design pending from WP3, material test will be done in WP4. Shallow etch devices are preferred for material tests, while deep etch and passivation will be investigated in parallel.	Weiming Longfei
2.	**Zn diffusion tests** The Smart stack wafer will be ready before the end of this month. Rene will start a quick test this week with an InP/InGaAs wafer to try to reproduce the diffusion the new reactor conditions.	Rene
3.	**BCB planarization** Tjibbe prepared several wafers with BCB to test different surface treatments, including ICP-PECVD SiO2, O2 plasma etc. He is currently occupied by activities in nanolab. Longfei will try to share some of these tasks. Roel is looking for a topography wafer for the planarization test.	Tjibbe Longfei Roel
4.	**Stepper process** We get a concrete plan for the development, including test with AZ and MaN resist (CD, focus-energy window etc) and test with overlay accuracy (co-work with DUV). Polyimide litho in the generic flow will be done with MA6 for the time being due to the risk of wafer backside contamination. Stepper is currently down. Maintenance is scheduled this week.	Robert
5.	**Etching process** Recent results showed the impact of the etch process on CDL and variation. Cl2-CH4-H2 promises verticality and also applies to Al materials. Previous Cl2-Ar-N2 process used in the group is another option. DOE will be used for this development. Longfei will summarize the inputs and outputs of this experiment, and also try to find a baseline process from literatures. Oxford Instrument shows interest for collaboration. Huub is in contact with them.	Longfei
6.	**DUV** Initial set of requirements received from Ronald: target 50 nm gap in AWG. Roel will check whether this is achievable. Weiming will include test structures in the next SP if DUV will be introduced then. Passive undoped WG loss measurement is proposed to get a reference for several benchmarks. However, we should first look into automotive test capability such that the loss measurement can deliver sufficient statistics.	Roel Weiming

Next meeting: 13:30-15:00, 20-03-2017, Flux 10.177