

Ossila OFET training workshop

The Ossila OFET training workshop is designed to give a practical overview of how to design, build and test OFETs in a number of different geometries for a variety of research purposes.

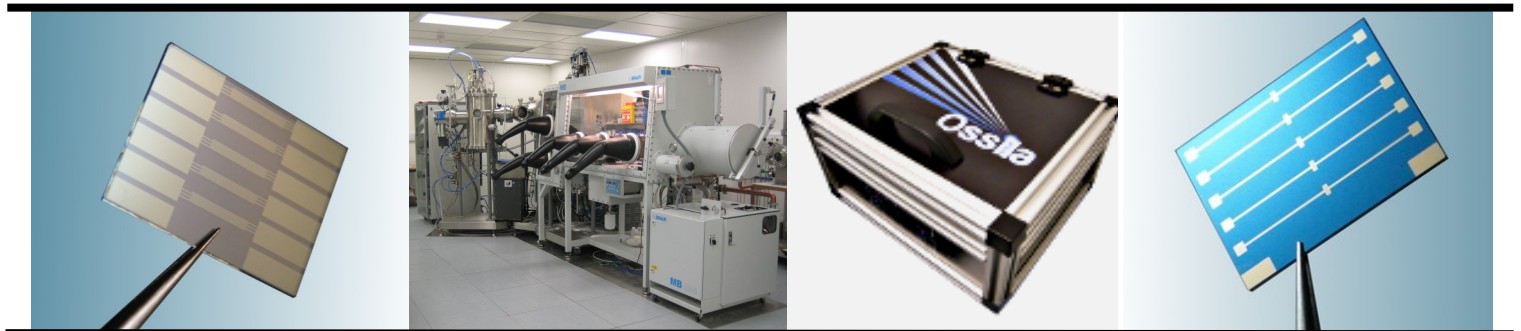
This two day course comprises of a day dedicated to making real devices in the clean rooms with a day spent beforehand learning about the theory and practicalities of device design/ fabrication as well as preparing/practising for the clean-room time.

Participants will be introduced to the fabrication methods and equipment used for all four major types of OFET architecture (top/bottom gates and top/bottom contacts) and will fabricate devices based upon two different architectures. Devices will also be fabricated with both solution processed small molecules and polymers.

An overview of measurement techniques and equipment will be provided, followed by an opportunity for participants to apply what they've learnt to make their own devices and test the performance.

Small groups (maximum of four people per course) with two instructors will maximise the learning and practice opportunities.

Cost: £700 (excl. VAT) per person excluding travel and accommodation (lunch/dinner are provided for duration of course)



Day 1 - Primarily Classroom based	Time (hours)	Delivery
Welcome, get to know and H&S paperwork	0.5	Classroom
Clean room tour and induction	1	Cleanroom
Review of common OFET structures	0.5	Classroom
Fabrication steps and techniques	0.5	Classroom
Substrate handling practice (tweezers and loading evaporation stacks)	0.5	Practical Classroom
Lunch	0.75	Board room
OFET Theory	0.25	Classroom
OFET designs	0.25	Classroom
Introduction to Measurement and analysis	0.25	Classroom
Common mistakes and problems (critical and non-critical parameters)	0.25	Classroom
Fabrication Video	0.25	Classroom
Spin coating	0.5	Practical Classroom
Ink formulation (theory and aspects)	0.25	Classroom
Substrate cleaning - techniques and reasons	0.25	Classroom
Coffee break	0.25	Board room
Introduction to FACT1 system and practise measurement	0.5	Practical Classroom
Calculation and measurement of capacitance	0.5	Practical Classroom
Introduction to probe stations and system design	0.5	Practical Classroom
Ink formulation ready for fabrication	1	Cleanroom
Substrate cleaning	0.5	Cleanroom
Day 2 - Primarily Cleanroom based	Time (hours)	Delivery
Part 1 - Silicon Fabrication - Bottom Gate / Bottom Contacts		
Load evaporation stack	0.5	Cleanroom
Load, pump and evaporate Edwards	1	Cleanroom
Metrology (microscope and Dektak)	0.5	Cleanroom
OTS deposition	1	Cleanroom
Demonstration - Spin coat PBTTT in glovebox and measure under ambient	0.5	Cleanroom
Practise (two substrates each) - spin coat PBTTT in glovebox and measure under ambient	1	Cleanroom
Lunch	0.5	Classroom
Part 2 - Glass/ITO - Bottom contacts / Top Gate		
Demonstration of PCDTBT substrate	0.5	Cleanroom
Practise PCDTBT substrate (three substrates each)	2	Cleanroom
Close		
Analysis of data files	0.25	Classroom
Questions & closing remarks	0.25	Classroom