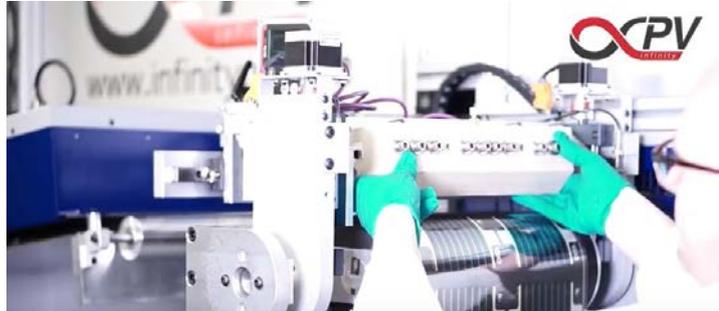


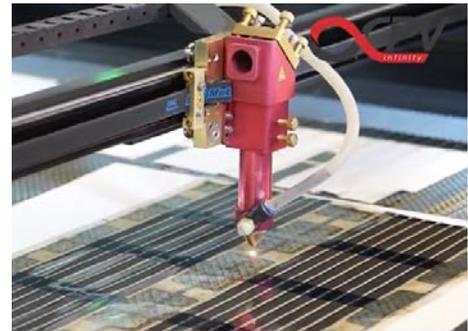
infinityPV – Workshops

infinityPV ApS gives you the opportunity to become experienced with scaled processing of printed solar cells from A-Z. The manufacture of solar cells using printing techniques is an involved process where many steps enter. You will not be able to master it all at once but we offer you to gain experience with every step on the way from making materials and inks through printing to testing, packaging and integration the final product. You will return with solid know-how and we are of course always there to refocus your training in one or more areas that you were previously unfamiliar with or that you did not attend in your chosen workshop. If you complete our entire series of training modules you will become a R2R master of printed solar cells.



Key highlights:

- Learn the basics prior to attending through our e-learning courses
- Learn the basics of designing your solar cells for a given purpose
- Learn the basic materials science behind the active ingredients
- Learn about inks and preparation of inks for different printing methods
- Roll-to-roll print your electrode stack using a number of different printing and coating methods
- Test your printed solar cells using roll-to-roll methods
- Package your solar cells through roll-to-roll lamination.
- Test and analyze your solar cells using a number of techniques (solar simulator, LBIC, stability testing)
- Learn how to cut devices from the roll and handle them using robotic systems



We offer a series of workshops that taken together schools you for the entire process. Many of our participants are already skilled in one of more of the professional disciplines that enter in the value chain for printed solar cells and we have therefore broken the entire process up into modules that as much as possible separates the disciplines allowing you to tailor your learning process to the skills you already have and the ones you need to acquire.

Training and learning

The workshops are all comprised of a theoretical part that you need to attend online prior to the physical workshop. You can always go back to these at any later stage to refresh your memory. The physical workshop is comprised mainly of practical laboratory work but also have a few theoretical

sessions dedicated to instruction on the use of the specific equipment and the safety associated with it. Upon arrival and before any practical work can begin you need to have signed the responsibility declaration that is issued to you upon registration for one of the workshops.

Practical work - what you get

The table outlines the overall contents of the workshops that we offer. They can be chosen individually according to your needs. The five different modules we offer are action packed hands-on teaching that runs for 9 hours each day with a one-hour lunch break (lunch included). The courses start at 0800AM and finish at around 1700PM. There is a maximum of 6 participants for each module. It is possible to get an exclusive workshop for companies and we can run them under an NDA. Lunch, materials and expenses are included during the day. Breakfast, dinner, accommodation and travel are not included.

	MATERIALS	PRINTING	PACKING	INTEGRATION	STABILITY	TR2RC
FLOW SYNTHESIS	✓					
BATCH SYNTHESIS	✓					
INK PREPARATION	✓					(✓)
ROLL COATING AND PRINTING	✓	✓			✓	✓
OPV TEST DEVICES	✓	✓	✓		✓	✓
PEROVSKITE TEST DEVICES						✓
R2R FLEXO PRINTING		✓				
R2R ROTARY PRINTING		✓				
R2R SLOT-DIE COATING		✓				
R2R TESTING		✓				
ADHESIVES	✓					(✓)
R2R LAMINATION			✓			
CHARACTERISATION			✓		✓	
LASER CUTTING			✓	✓		
CONTACTING				✓		(✓)
ROBOTIC HANDLING				✓		
ELECTRONICS AND IOT				✓		
ISOS STABILITY TESTING					✓	(✓)
FAILURE ANALYSIS					✓	(✓)
STUDY HOURS BEFORE	4	12	4	4	8	4

Values in brackets comprise less extensive detail and less involved experiments

Cost & registration:

You can order online or send an e-mail to workshop@infinityPV.com for registration. Please include all your details, participant name, invoice address, mobile phone number and VAT number (for Europe). We will send an invoice and once paid you will be given access to our online teaching system where you will need to complete the e-learning courses and pass the exams prior to the workshop itself. You will also be issued with a registration form that needs to be signed, scanned and mailed to us prior to the workshop or handed to us at the very beginning of the workshop. The workshops qualify for ECTS points if you are a university student (we recommend master or PhD level).