

# Tutorial on Solar Cells

(PV devices, thin film deposition processes and characterization)

- 주 관 : 한국태양광발전학회, 대경 태양전지/모듈 소재공정 지역혁신센터(RIC),  
영남대학교 태양전지소재공정 고급인력양성사업단, LINC 사업단 및 태양에너지연구소  
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- 기 간 : 2014 년 8 월 4 일(월) – 6 일(수), 총 21 시간
- 장 소 : 영남대학교 CRC Building 502 호
- 등록비 : 일반 20 만원, 학생 10 만원 (교재, 중식, 주차권 포함)
- 강 사 : Angus Rockett (Professor, U. Illinois at Urbana Champaign, arockett@ad.uiuc.edu)
- Course content:

## - 8 월 4 일(월)

Lecture	Time period	Contents	Lecturer
1	13:00 – 13:50	Fundamentals of photovoltaic device	A. Rockett
2	14:00 – 14:50	Photovoltaic system engineering	A. Rockett
3	15:00 – 15:50	Inverter technologies and power control	A. Rockett
4	16:00 – 16:50	Transparent conductors	A. Rockett
5	17:00 – 17:50	PV optoelectronic characterization	A. Rockett

## - 8 월 5 일(화)

6	09:00 – 09:50	PV device modeling and performance interpretation	A. Rockett
7	10:00 – 10:50	Crystalline Si PV: processing & devices	A. Rockett
8	11:00 – 11:50	Amorphous Si and CdTe PV: processing & devices	A. Rockett
Lunch break			
9	13:30 – 14:20	Global PV market trends	Chinho Park
10	14:30 – 15:20	CIGS PV: processing & devices	A. Rockett
11	15:30 – 16:20	CZTS PV: processing & devices	A. Rockett
12	16:30 – 17:20	Multijunction devices	A. Rockett
13	17:30 – 18:20	Concentrating PV & tracking	A. Rockett

## - 8 월 6 일(수)

14	09:00 – 09:50	OPV and third generation concepts	A. Rockett
15	10:00 – 10:50	Semiconductor & defect physics	A. Rockett
16	11:00 – 11:50	Thin film deposition processes(1): Fundamentals and evaporation	A. Rockett
Lunch break			
17	13:30 – 14:20	Thin film deposition processes(2): Sputtering	A. Rockett
18	14:30 – 15:20	Thin film deposition processes(3): CVD and ALD	A. Rockett
19	15:30 – 16:20	Microstructural characterization: XRD, SEM, TEM etc.	A. Rockett
20	16:30 – 17:20	Microchemical characterization: SIMS, AES, XPS etc.	A. Rockett
21	17:30 – 18:20	Scale-up issues of thin film PV	A. Rockett