



해외저명학자 초청 하계 튜토리얼

(주제 : IT-Energy Materials and Processings)



Prof. Tim Anderson



Prof. Angus Rockett

- 일시 : 2016년 8월 8일 (월) ~ 10일 (수)
- 장소 : 영남대학교 CRC 빌딩 502호
- 강사 : Prof. Tim Anderson (U. Massachusetts Amherst)
Prof. Angus Rockett (U. Illinois at Urbana-Champaign)
- 주최 : 영남대학교 LINC사업단
LED-IT융합산업화연구센터
청정에너지 중점연구소사업단
대경 태양전지/모듈 소재공정 지역혁신센터
BK21플러스 IT · 에너지 소재공정 창의화공인재 양성사업단
신재생에너지 전력및열생산/저장 하이브리드시스템 고급인력양성사업단
- 문의 : 053-810-4519 (LINC사업단 김현주)
053-802-6794 (대경 태양전지 RIC 구유미)

Day 1 (August 8, Mon.): Fuel cell, Battery and LED

Lecture	Time period	Contents	Lecturer
1	13:00 - 13:30	Introduction to energy and optoelectronic devices (Fuel cell, battery, PV, LED etc.)	T. Anderson
2	14:00 - 14:30	Fuel cells (1)	T. Anderson
3	15:00 - 15:30	Fuel cells (2)	T. Anderson
4	16:00 - 16:30	Battery	A. Rockett
5	17:00 - 17:30	LED	A. Rockett

Day 2 (August 9, Tue.): Solar cells

Lecture	Time period	Contents	Lecturer
6	09:00 - 09:30	Intro to renewable energy & PV	A. Rockett
7	10:00 - 10:30	Sunlight, CPV, split spectrum concepts	A. Rockett
8	11:00 - 11:30	Photovoltaic device characterization & modeling	A. Rockett
		Lunch break	
9	13:30 - 14:00	Crystalline Si PV	A. Rockett
10	14:30 - 15:00	CIGS PV	T. Anderson
11	15:30 - 16:00	CdTe and CZTS PV	T. Anderson
12	16:30 - 17:00	OPV/DSSC/Perovskite	T. Anderson
13	17:30 - 18:00	Multijunction PV and third generation concepts	T. Anderson

Day 3 (August 10, Wed.): Electronic Materials Processings

Lecture	Time period	Contents	Lecturer
14	09:00 - 09:30	Fundamentals of Vacuum	A. Rockett
15	10:00 - 10:30	Evaporation/Epitaxy/Strain relief/Dislocations	A. Rockett
16	11:00 - 11:30	Sputter deposition	A. Rockett
		Lunch break	
17	13:30 - 14:00	Halide/Hydride CVD	T. Anderson
18	14:30 - 15:00	MO-CVD and ALD	T. Anderson
19	15:30 - 16:00	Oxidation/CMF/ Lithography/Photoresists	T. Anderson
20	16:30 - 17:00	Wet/plasma etching	A. Rockett

Tutorial on IT-Energy Materials and Processings

- Date : August 8 (Mon.) ~ 10 (Wed.)
- Place : Yeungnam University, CRC Building # 502
- Lecturers : Profs. Tim Anderson (U. Mass., Amherst) and Angus Rockett (U. Illinois at Urbana Champaign)

Day 1 (August 8, Mon.): Fuel cell, Battery and LED

Lecture	Time period	Contents	Lecturer
1	13:00 – 13:50	Introduction to energy and optoelectronic devices (Fuel cell, battery, IC, PV, LED etc.)	T. Anderson
2	14:00 – 14:50	Fuel cells (1)	T. Anderson
3	15:00 – 15:50	Fuel cells (2)	T. Anderson
4	16:00 – 16:50	Battery	A. Rockett
5	17:00 – 17:50	LED	A. Rockett

Day 2 (August 9, Tue.): Solar cells

Lecture	Time period	Contents	Lecturer
6	09:00 – 09:50	Intro to renewable energy & PV	A. Rockett
7	10:00 – 10:50	Sunlight, CPV, split spectrum concepts	A. Rockett
8	11:00 – 11:50	Photovoltaic device characterization & modeling	A. Rockett
Lunch break			
9	13:30 – 14:20	Crystalline Si PV	A. Rockett
10	14:30 – 15:20	CIGS PV	T. Anderson
11	15:30 – 16:20	CdTe and CZTS PV	T. Anderson
12	16:30 – 17:20	OPV/DSSC/Perovskite	T. Anderson
13	17:30 – 18:20	Mutijunction PV and third generation concepts	T. Anderson

Day 3 (August 10, Wed.): Electronic Materials Processings

Lecture	Time period	Contents	Lecturer
14	09:00 – 09:50	Fundamentals of Vacuum	A. Rockett
15	10:00 – 10:50	Evaporation/Epitaxy/Strain relief/Dislocations	A. Rockett
16	11:00 – 11:50	Sputter deposition	A. Rockett
Lunch break			
17	13:30 – 14:20	Halide/Hydride CVD	T. Anderson
18	14:30 – 15:20	MO-CVD and ALD	T. Anderson
19	15:30 – 16:20	Oxidation/CMP/ Lithography/Photoresists	T. Anderson
20	16:30 – 17:20	Wet/plasma etching	A. Rockett