

2023 Spring

TIGP Sustainable Chemical Science and Technology Program			
Introduction to Sustainable Chemical Science and Technology			
		Period:	2023/Feb. - 2023/June
		Classroom:	B105, IoC, AS
		Time:	AM9:10-12:00
Goals:	1. Know the backgrounds and chemistry of sustainability-related issues. 2. Learn the spirit of green chemistry and the challenges/opportunities in the real world. 3. Get exposed to important research directions.		
Theme			
<b>4</b>	<b>Energy Related Technologies</b>		
	4.1 Applied electrochemistry for energy related technologies (including electrode kinetics)	Ho, Kuo-Chuan	2023/2/22
	4.2 Solar and thermoelectric energy conversion	Chen, Kuei-Hsien	2023/3/1
	4.3 Energy Storage (Lithium ion battery, Flow battery) and Energy Saving Technologies (Photochromic, Electrochromic, Thermochromic)	Yen, Hung-Ju	2023/3/8
<b>5</b>	<b>Greener Materials</b>		
	5.1 Chemicals from Different Feedstocks		
	5.1.2 CO <sub>2</sub> and Natural Gas	Yu, Steve Sheng-Fa	2023/3/15
	5.3 From Waste to Wealth (CO <sub>2</sub> ; E-waste; food waste; plastic waste...)	Yu, Steve Sheng-Fa	2023/3/22
	5.2 Degradable Polymers	Yu, Jia-Shing	2023/3/29
	<b>Tomb Sweeping Day</b>	<b>No Class</b>	<b>2023/4/5</b>
	5.1.2 Biomass	Chung, Cedric Po-Wen	2023/4/12
	5.4 Bio-Synthesis	Wang, Cheng-Chung	2023/4/19
	5.5 Green Hydrogen from Sunlight	Wu, Chi-Sheng	2023/4/26
	5.6 Modern theoretical computation applied to energy science	Wu, David Tai-Wei	2023/5/3
<b>6</b>	<b>Sustainable Health - Tackle Disease by Chemistry</b>		
	6.1 Peptide and probe chemistry in Diseases	Huang, Joseph Jen-Tse	2023/5/10
	6.2 Disease Detection and Diagnosis	Chen, Yu-Ju	2023/5/17
	6.3 Drug Development	Li, Wen-Shan	2023/5/24
	6.4 Emergent nanomedicine & diagnostic platforms	Tu, Hsiung-Lin	2023/5/31
	<b>*** Final Exam ***</b>	<b>Final Exam</b>	<b>2023/6/7</b>