



# Smart Materials for Smart Sensors Toward Area-Based Solving

LUMO  
HOMO

Optimized structures  
Electronic properties

Computational  
Procedures  
 $H\psi(x) = E\psi(x)$

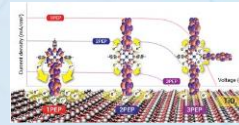
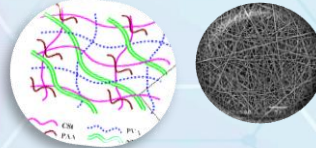
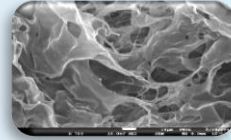
Molecular Design



Prof. Dr. Siriporn Jungstittiwong



Assoc. Prof. Dr. Worasak Sukkabot



Asst. Prof. Dr. Tinnakorn Keawin



Assoc. Prof. Dr. Sayant Saengsuwan



Asst. Prof. Dr. Juthamas Jitcharoen



Asst. Prof. Dr. Rukkiat Jitchati



Asst. Prof. Dr. Sarawut Prasertsri



Dr. Pranorm Saejueng

## I Theory computational

## II Synthesis and Characterization of smart (organic/inorganic) materials



Principal Investigator (PI)



Assoc. Prof. Dr. Anchalee Samphao



Assoc. Prof. Dr. Purim Jarujamrus



Dr. Ketsarin Seebunrueng

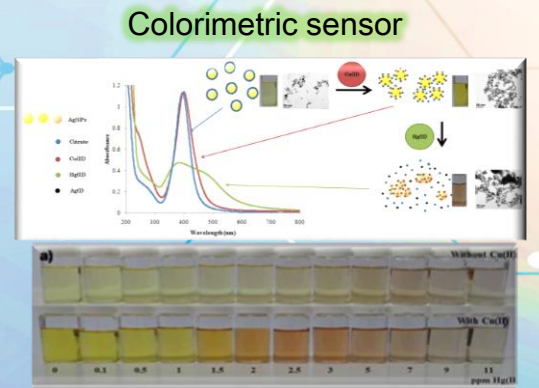
## III Smart Sensors

Electrochemical sensor

Butmee, P. et al. Talanta. (2021), 221, 121669.

Fluorescence sensor

Real sample application



Jarujamrus, P. et al. Spectrochim. Acta. A. (2015), 142: 86–93.