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MAJOR RESEARCH INTERESTS

- ◆ Well-ordered functional molecular nanostructure arrays via self-assembly on surfaces or surface nanotemplates for their applications in molecular electronics and solid state quantum computation;
- ◆ Molecular-level interface controlled organic thin films or organic heterojunctions for organic photovoltaic devices;
- ◆ Graphene-related devices, with particular focus on the single crystalline graphene epitaxially grown on SiC substrates;
- ◆ Excited-state chemistry or physics at the interfaces of organic/metal, organic-oxides, and organic p-n heterojunctions with well-defined molecular orientation, supramolecular arrangement and interface energy level alignment.

SELECTED PUBLICATIONS

10. "Low- Temperature Scanning Tunneling Microscopy Investigation of Epitaxial Growth of F16CuPc Thin Films on Ag(111)"
Huang H, **Chen Wei***, Wee ATS*, *J. Phys. Chem. C*. **112**, 14913-14918 (2008). **Cover in issue 39 25th Sep.**
9. "Self-Assembled Organic Donor/Acceptor Nanojunction Arrays"
Chen Wei*, Zhang HL, Huang H, Chen L, Wee ATS*, *Appl. Phys. Lett.* **92**, 193301 (2008) (**cover image in the 12th May issue**). Highlighted by *Nature Nanotechnology* **3**, 375 (2008).
8. "2D Pentacene:PTCDA supramolecular chiral networks on Ag(111)"
Chen Wei*, Li H, Huang H, Fu YX, Zhang HL, Ma J*, Wee ATS*, *J. Am. Chem. Soc.* **130**, 12285-12289 (2008).
7. "Preferential trapping of C₆₀ in nanomesh voids" (communication)
Zhang HL, **Chen Wei***, Huang H, Chen L, Wee ATS*, *J. Am. Chem. Soc.* **130**, 2720 (2008).
6. "Tunable arrays of C₆₀ molecular chains"
Chen L, **Chen Wei***, Huang H, Zhang HL, Yuhara J, and Wee ATS*, *Advanced Materials*. **20**, 484 (2008).
5. "C₆₀ molecular chain on α -sexithiophene nanostripes"
Zhang HL, **Chen Wei***, Chen L, Huang H, Wang XS, Yuhara J, and Wee ATS*, *Small* **3**, 2015 (2007).
4. "Surface transfer p-type doping of epitaxial graphene"
Chen Wei*, Chen S, Qi DC, Gao XY, and Wee ATS*, *J. Am. Chem. Soc.* **129**, 10418 (2007).
3. "Surface transfer doping of organic semiconductors using functionalized self-assembled monolayers"
Chen Wei, Gao XY, Qi DC, Chen S, Chen ZK, and Wee ATS*, *Advanced Functional Materials*, **17**, 1339 (2007).
2. "Effect of functional group (fluorine) of aromatic thiols on the electron transfer at the molecule-metal interface",
Chen Wei, Wang L, Huang C, Lin TT, Gao XY, Loh KP, Chen Zhi Kuan, and Wee ATS*, *J. Am. Chem. Soc.* **128**, 935 (2006).
1. "Atomic structure of the 6H-SiC(0001) nanomesh",
Chen Wei, Xu H, Liu L, Gao XY, Qi DC, Peng GW, Tan SC, Feng YP, Loh KP, and Wee ATS*, *Surf. Sci.* **596**, 176 (2005). **Perspective article by Rosei F, Surf. Sci.** **600**, 1-5 (2006).