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Propositions

Accompanying the thesis

The Influence of Conjugation in Molecular Tunneling Junctions and Nanofabrication

Yanxi Zhang

1. Molecular Electronics is an exciting field for the research.
2. It is easy and quick to form molecular junctions using eutectic Gallium-Indium (EGaIn) as a top contact (Chapter 1).
3. SAMs comprising 4-([2,2':5',2'':5'',2'''-quaterthiophen]-5-yl)butane-1-thiol (T4C4) are shown to be mechanically and electrically robust (Chapter 2).
4. The electron-withdrawing quinones suppress the tunneling charge transport more than the cross-conjugation itself (Chapter 3).
5. Nanoskiving is an unconventional and powerful way to fabricate ultrathin objects at the nanometer scale (Chapter 4 and 5).
6. Some discoveries and inventions were overlooked during their age, but they eventually earned the recognition and prominence.
7. Scientific research is mobile and global, and it requires the exchange of ideas.
8. Failure is nothing to fear. It makes you stronger and pushes you forward. Just take action.