

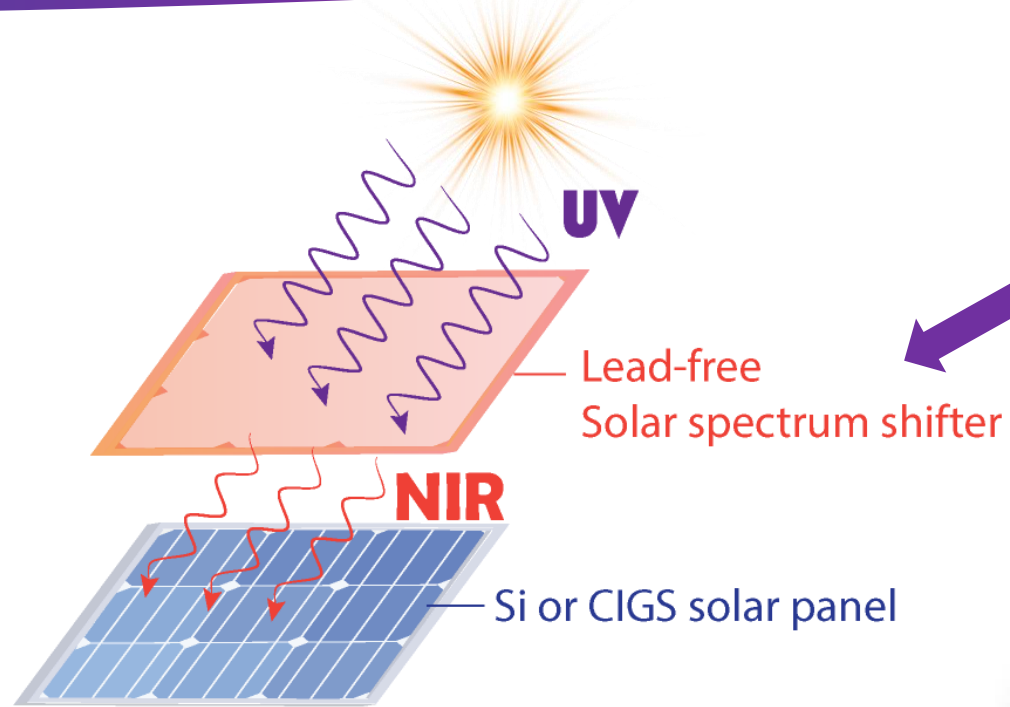
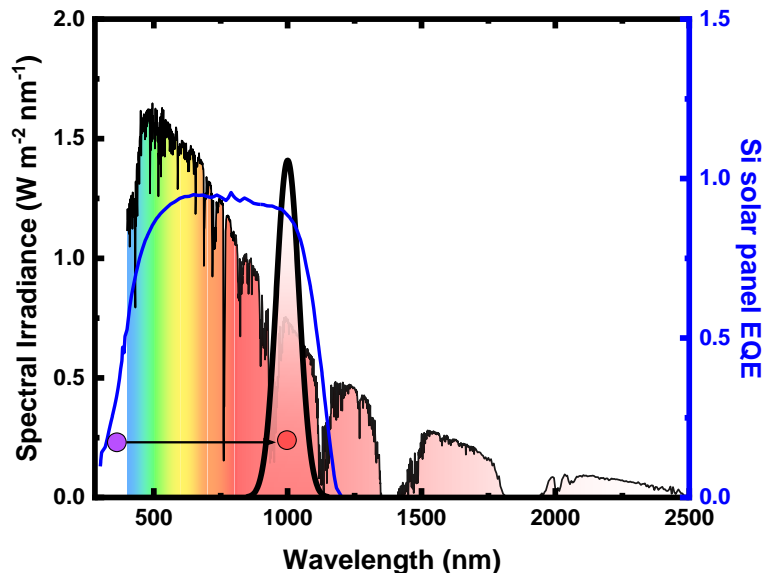


Changing the sun to make solar panels more efficient and last longer

UV effects on solar panels

- ✗ Low external quantum efficiency
- ✗ High operating temperature
- ✗ UV degradation

Solar spectrum shifter converts UV to near-infrared light



PVD-synthesized film



Advantages

- ✓ Boost efficiency 2-4% (e.g., from 20% to 24%)
- ✓ Reduce operating temperature
- ✓ Increase solar panel lifetime
- ✓ Drop-in process

Physical vapor deposition

- ✓ Uniform films
- ✓ Reproducibility
- ✓ Scalability
- ✓ Solvent-free
- ✓ Combinatorial synthesis