

# ASHIHARA LAB.

## [Ultrafast&Nano Optical Science]

Department of Fundamental Engineering

Ultrafast Optics

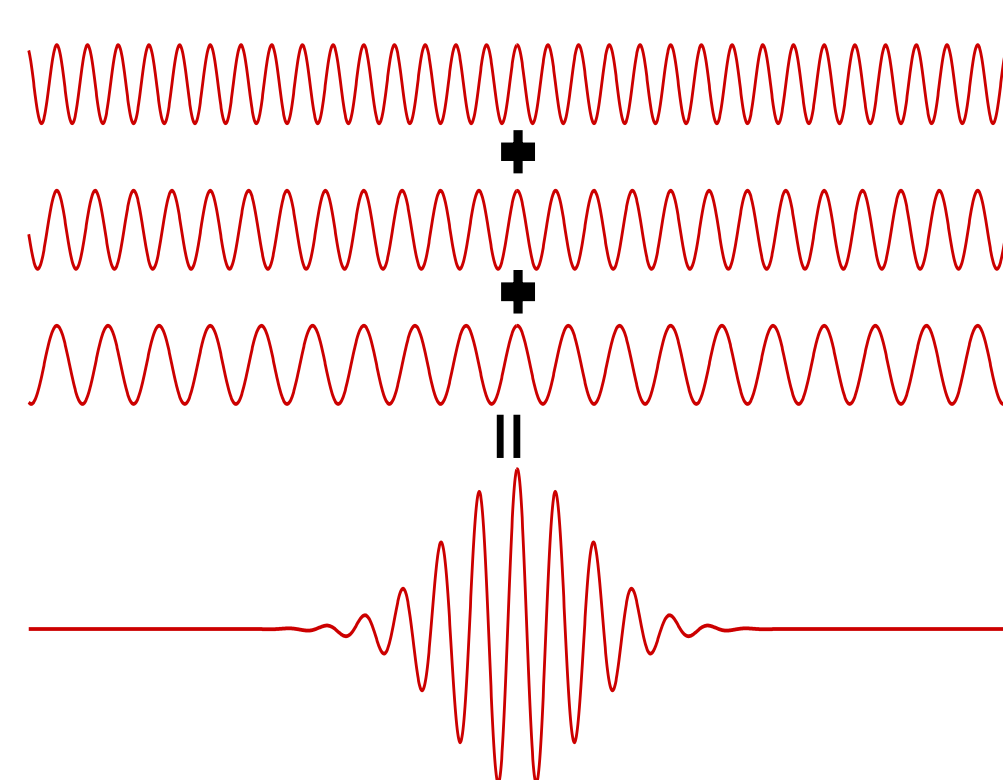
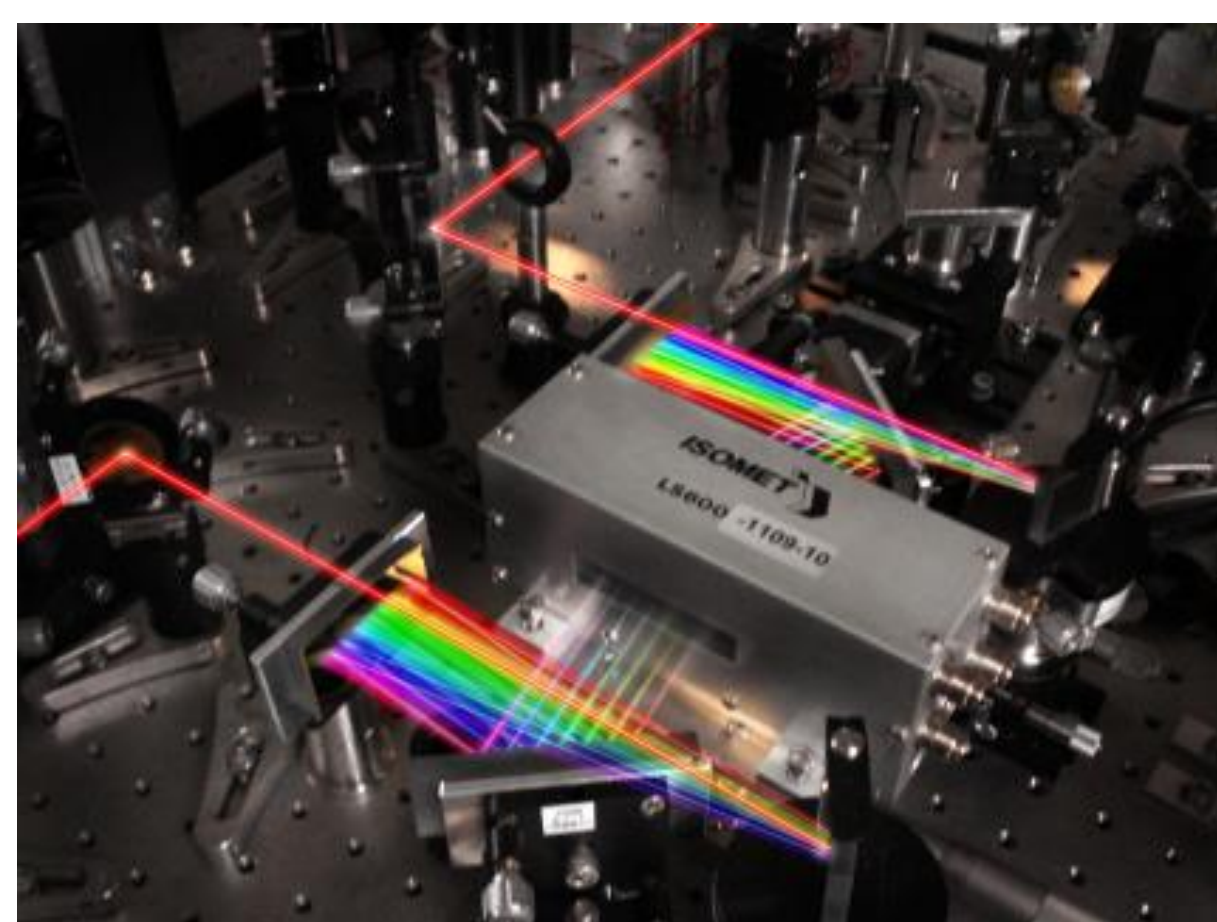
Department of Applied Physics

<http://www.ashihara.iis.u-tokyo.ac.jp>

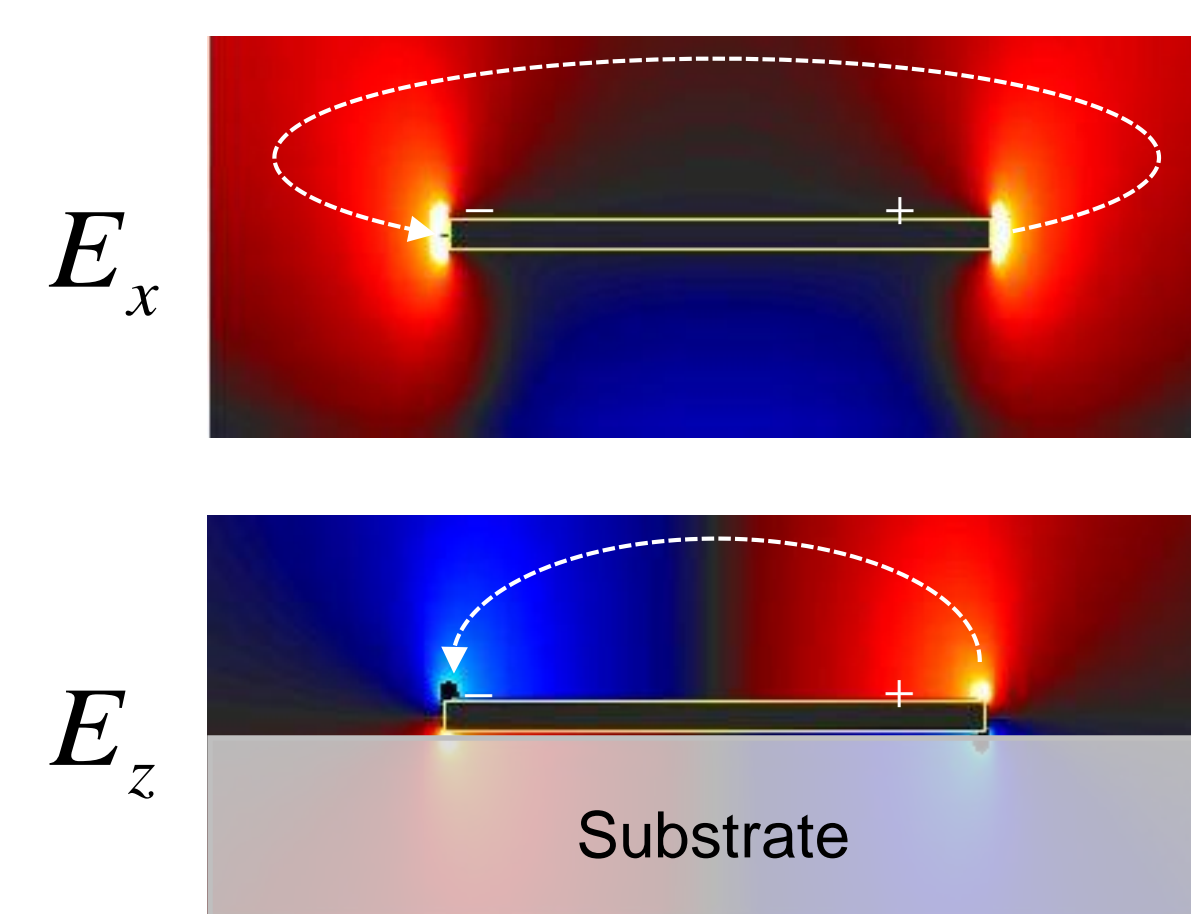
### Designed Light boosts Spectroscopy and Quantum Control

Based on ultrafast-laser and nano-photonics technologies, we generate optical fields with sophisticated design, study novel light-matter interactions, and develop advanced spectroscopy and coherent control schemes. Future prospects include the applications into super-sensitive molecular detection/analysis, nano-spectroscopic imaging, reaction control, and ultrafast optoelectronics.

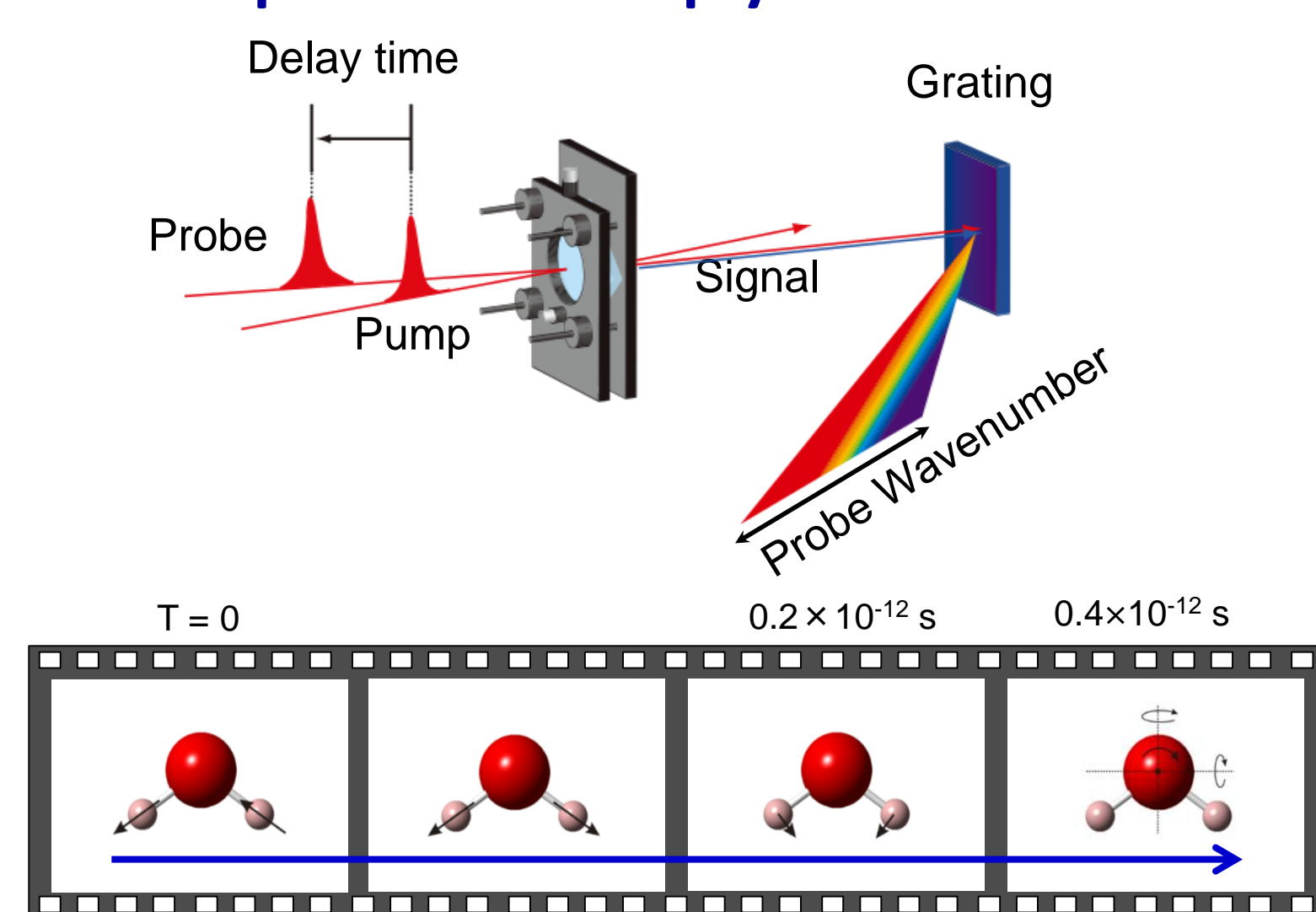
#### ◆ Optical Synthesizer



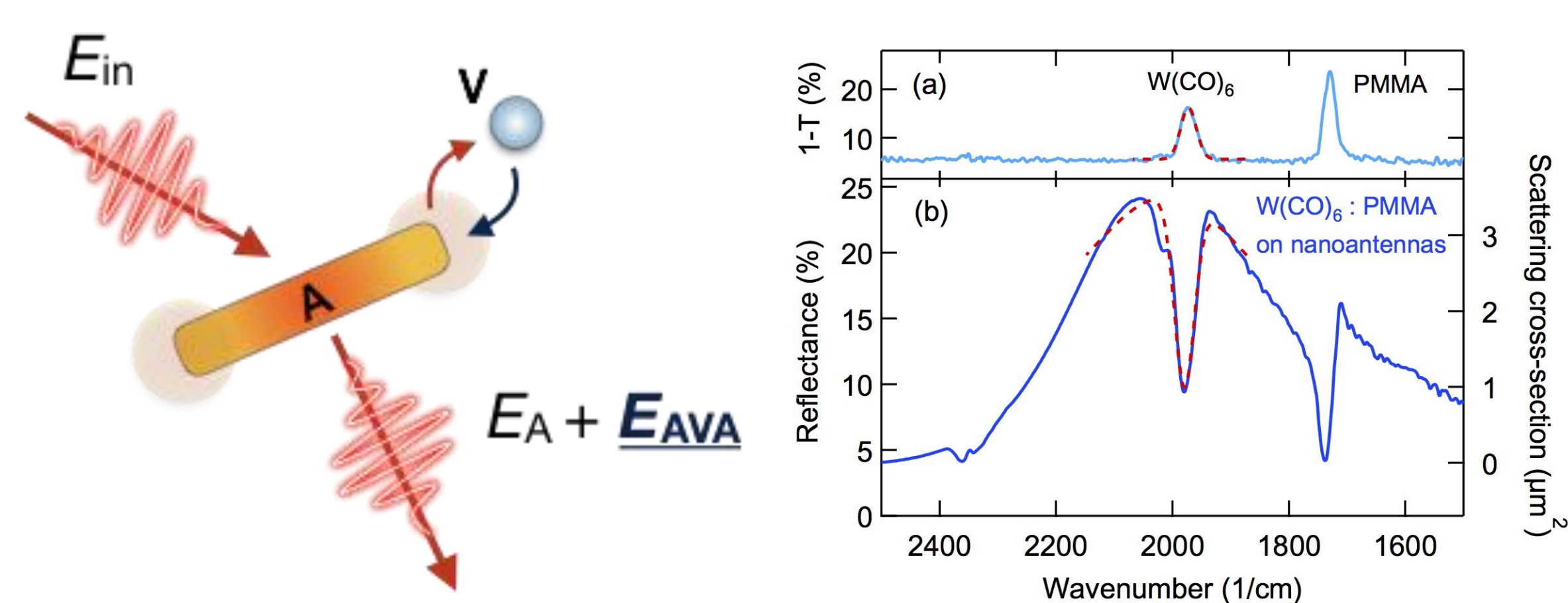
#### ◆ Nano-scale Field Enhancement



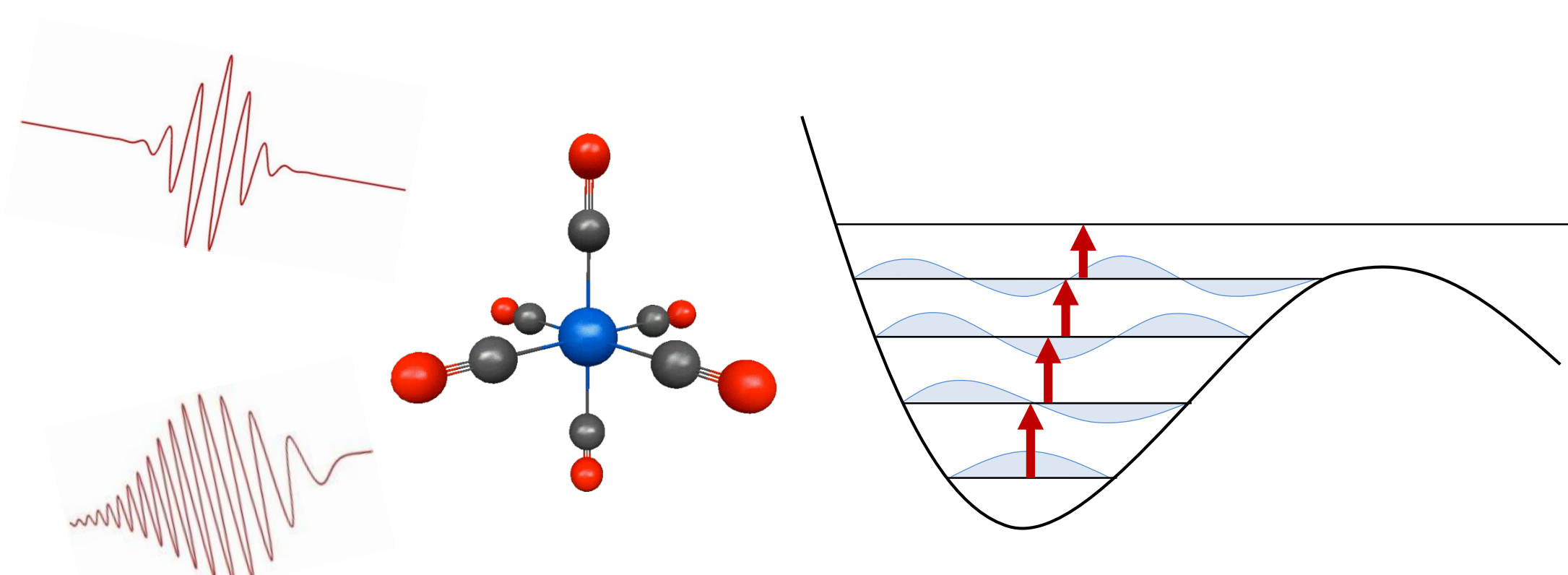
#### ♠ Ultrafast Spectroscopy



#### ♠ Antenna-enhanced Spectroscopy



#### ♣ Laser Quantum Control



#### ♣ Light-field-driven Electronics

