Correlating Molecular Environment with Performance in **Immobilized Green Catalysts** Using Nonlinear Optical Techniques

Second harmonic generation (SHG) is a type of measurement that allows us to observe chemistry at *buried surfaces* like those containing immobilized catalysts surrounded by reactants in liquid.

By changing how the incoming light from the laser is polarized and looking at how that affects the second harmonic signal, we can determine the *orientation* of reactants bound to our catalyst.

*These measurements will allow us to determine what surface properties lead to the best catalysts!*