



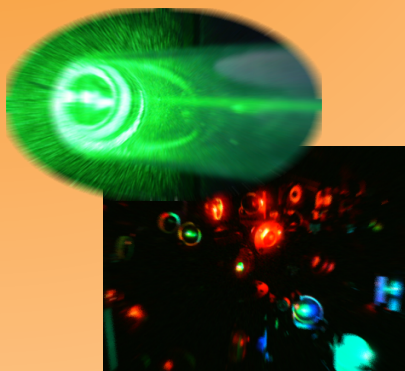
DEPARTMENT OF MATERIAL AND LIFE SCIENCE
DIVISION OF ADVANCED SCIENCE AND BIOTECHNOLOGY
GRADUATE SCHOOL OF ENGINEERING, OSAKA UNIVERSITY



LABORATORY OF ADVANCED LASER SPECTROSCOPY

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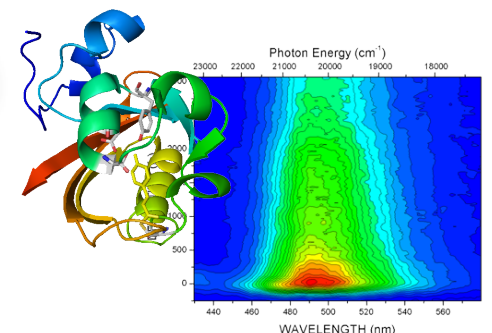


CONTROLLING AND GENERATING COHERENT LIGHT SOURCES

BY MANIPULATING AND CONTROLLING COHERENT LIGHT WAVES,
WE AIM AT DEVELOPING LIGHT SOURCES OF TAILORED LIGHT PULSES
IN A WIDE SPECTRAL REGION FROM UV TO TERAHERTZ WAVES BASED ON FEMTOSECOND LASER SYSTEMS.

OBSERVING AND CONTROLLING COMPLEX SYSTEMS

NOVEL LIGHT SOURCES ENABLE US TO OBSERVE AND CONTROL DYNAMICS OF
SUCH COMPLEX SYSTEMS AS PROTEINS OVER WIDELY DISTRIBUTED TIME SCALES.
DYNAMIC BEHAVIOR AND INTERACTION OF PROTEIN MOLECULES ARE INVESTIGATED
BY ULTRAFAST FLUORESCENCE SPECTROSCOPY AND NONLINEAR OPTICAL METHOD.



DEVELOPING SYSTEMS FOR ADVANCED LASER SPECTROSCOPY

WE DEVELOP PRACTICAL SYSTEMS OF HIGH PERFORMANCE FOR COLLABORATIONS
WITH RESEARCHERS IN DIFFERENT AREAS.
REFLECTION MODE SYSTEMS FOR TIME DOMAIN TERAHERTZ (THz) SPECTROSCOPY,
ULTRAFAST KERR-GATING SYSTEMS FOR TIME-RESOLVED FLUORESCENCE SPECTROSCOPY,
FLUORESCENCE MICROSCOPES FOR NON-INVASIVE OBSERVATION OF MULTI-TRACERS IN LIVING CELLS
ARE OUR ORIGINAL AND NOW AVAILABLE FOR COLLABORATION.

