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PS Dynamics and Dephasing Times of Internal Amino Acids in Proteins[1] ROBERT AUSTIN, Princeton University, AIHUA XIE, Oklahoma State University, BRITTA REDLICH, FOM Institute for Plasma Physics, LEX VAN DER MEER, FOM Institute for Plasma Physics — We present results on very narrow linewidth (2 cm^{-1}), high peak flux (1 μJ in a 50 μ spot) pump/probe and photon echo experiments on the amide I band of proteins. Using the continuous tuning capability of the FELIX FEL we scan across the amide I band with these narrow, high intensity pulses searching for signs of energy trapping in the inner core of a protein, and seach for correlations between trapped states and long dephasing times of the trapped states.

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