

Supplementary Materials for

Nanoscale transient gratings excited and probed by extreme ultraviolet femtosecond pulses

F. Bencivenga*, R. Mincigrucci, F. Capotondi, L. Foglia, D. Naumenko, A. A. Maznev, E. Pedersoli, A. Simoncig, F. Caporaletti, V. Chiloyan, R. Cucini, F. Dallari, R. A. Duncan, T. D. Frazer, G. Gaio, A. Gessini, L. Giannessi, S. Huberman, H. Kapteyn, J. Knobloch, G. Kurdi, N. Mahne, M. Manfredda, A. Martinelli, M. Murnane, E. Principi, L. Raimondi, S. Spampinati, C. Spezzani, M. Trovò, M. Zangrando, G. Chen, G. Monaco, K. A. Nelson, C. Masciovecchio*

*Corresponding author. Email: filippo.bencivenga@elettra.eu (F.B.); claudio.masciovecchio@elettra.eu (C.M.)

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Fig. S1. Experimental details.

Supplementary Material

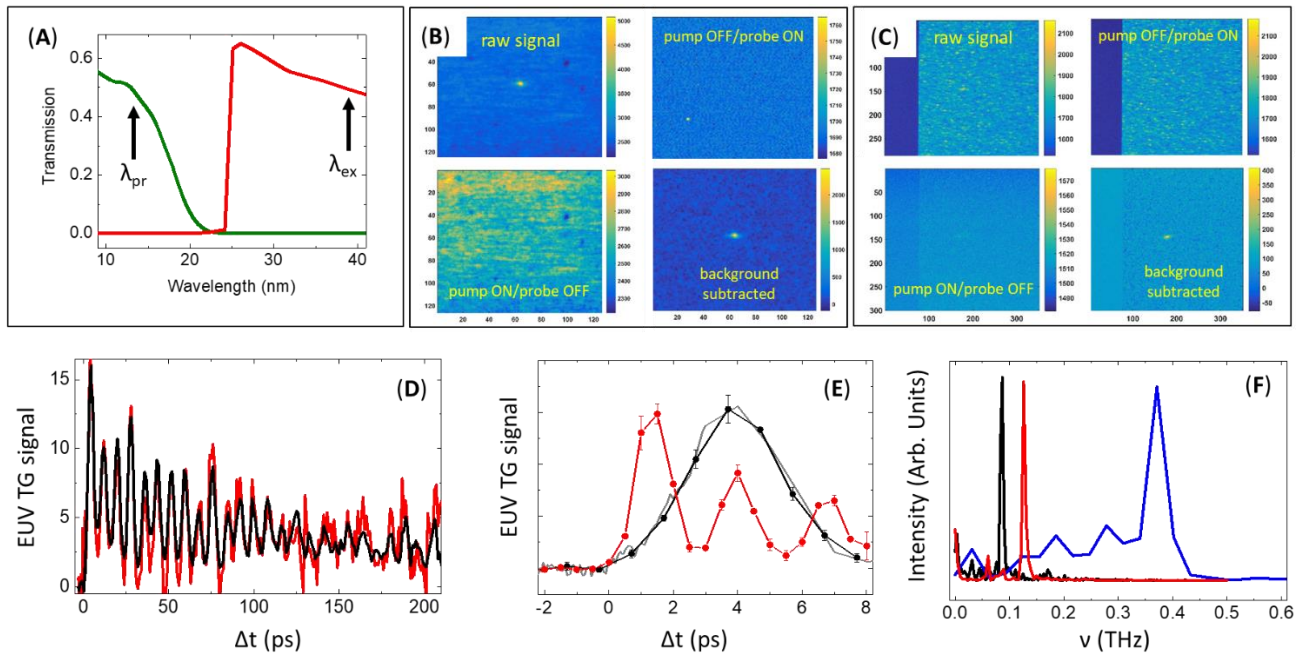


Fig. S1. Experimental details. (A) transmission of the SSFs used to block the radiation at λ_{pr} propagating collinearly with the excitation beams (red line) and the one of the SSF in front of the detector (green line) to filter out the spurious scattering at λ_{ex} . Signal, pump OFF/probe ON, pump ON/probe OFF and background subtracted images are shown in (B) for the case of $\lambda_{ex} = 39.9$ nm and $\lambda_{pr} = 13.3$ nm. Panel (C) is the same as (B) for the case $\lambda_{ex} = \lambda_{pr} = 13.3$ nm. Panel (D) shows the EUV TG signal before (red line) and after (black line) the background subtraction and normalization procedures. Black and red symbols in (E) are the EUV TG signal intensity at LTG = 85 nm and 28 nm, respectively, while the grey line is an additional scan (at LTG = 85 nm) with a single signal image per Δt -point, 4 times less exposure time and smaller Δt steps (0.05 ps) in the -2 +2 ps range. The Fourier transforms of the waveforms reported in Fig. 2A-2C are displayed in (F), after subtraction of the thermal decay; black, red and blue lines are LTG = 110 nm, 85 nm and 28 nm, respectively.