

Supplementary material for the article “Excitonic effects in two-dimensional vibrational spectra of liquid formamide”

Alexander Paarmann<sup>1,2</sup>, Manuela Lima<sup>3</sup>, Riccardo Chelli<sup>3,4</sup>, Victor V. Volkov<sup>3</sup>, Roberto Righini<sup>3,4</sup>, and R. J. Dwayne Miller<sup>1,5</sup>

<sup>1</sup>Departments of Chemistry and Physics, University of Toronto, Toronto, ON, M5S 3H6, Canada

<sup>2</sup>Fritz-Haber Institute of the Max-Planck Society, Faradayweg 4-6, 14195 Berlin, Germany

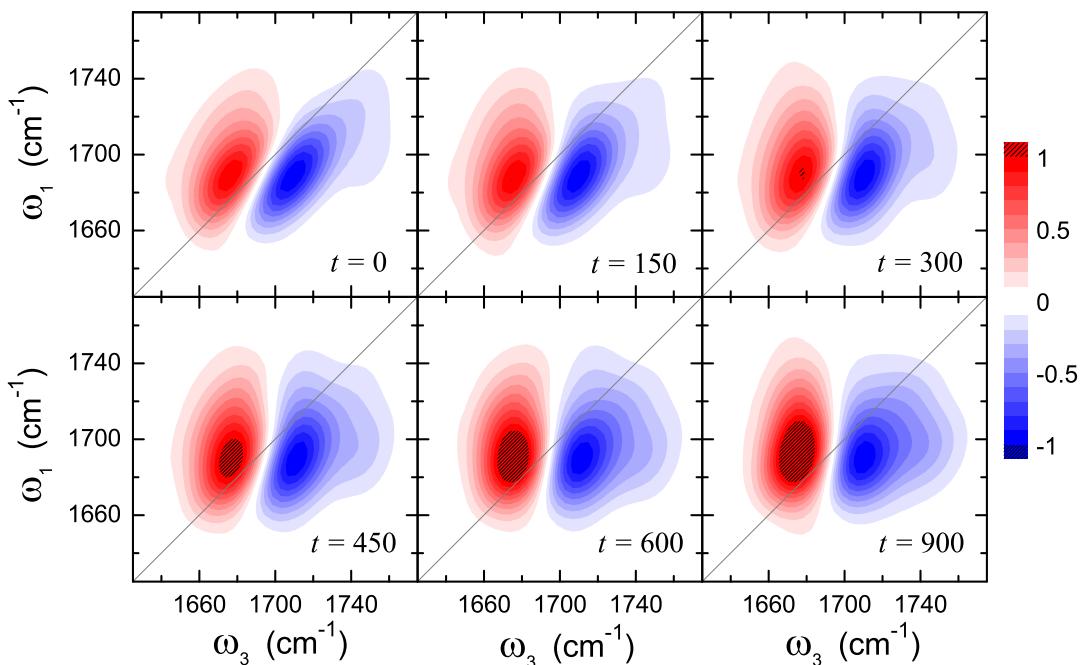
<sup>3</sup>European Laboratory for Non-Linear Spectroscopy (LENS),

Via Nello Carrara 1, I-50019 Sesto Fiorentino, Italy

<sup>4</sup>Dipartimento di Chimica, Università di Firenze,

Via della Lastruccia 3, I-50019 Sesto Fiorentino, Italy and

<sup>5</sup>Max Planck Group for Atomically Resolved Dynamics, Department of Physics, University of Hamburg, Centre for Free Electron Laser Science, DESY, Germany



**Figure 1S:** 2DIR spectra of neat FA calculated at different pump-probe delay times (see  $t$  on the panels in units of fs). The spectra are calculated in XXXX polarization condition.  $\omega_1$  and  $\omega_3$  refer to the excitation and detection frequencies, respectively.