

## Supplementary materials

Below we present analyses of 8-azaxanthine fluorescence decay in acidified MeOH with 280 nm excitation and 340 nm observation wavelength, fitted for 2 and 3 exponential components.

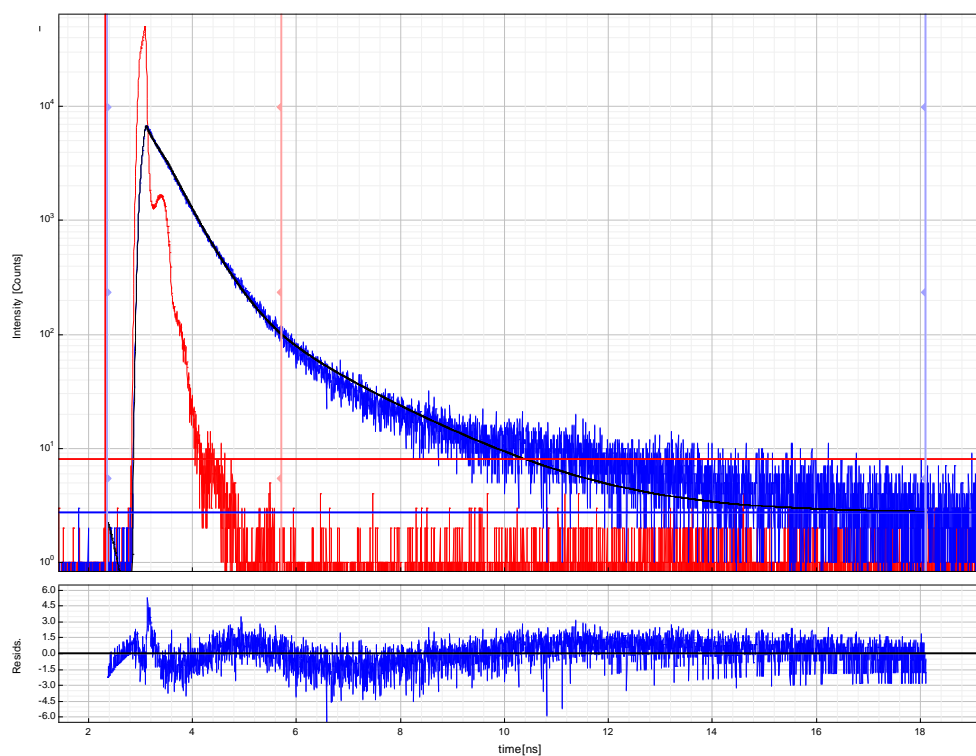


Fig. S1. Two exponential reconvolution of 8-azaxanthine,  $\chi^2 = 1.657$ .

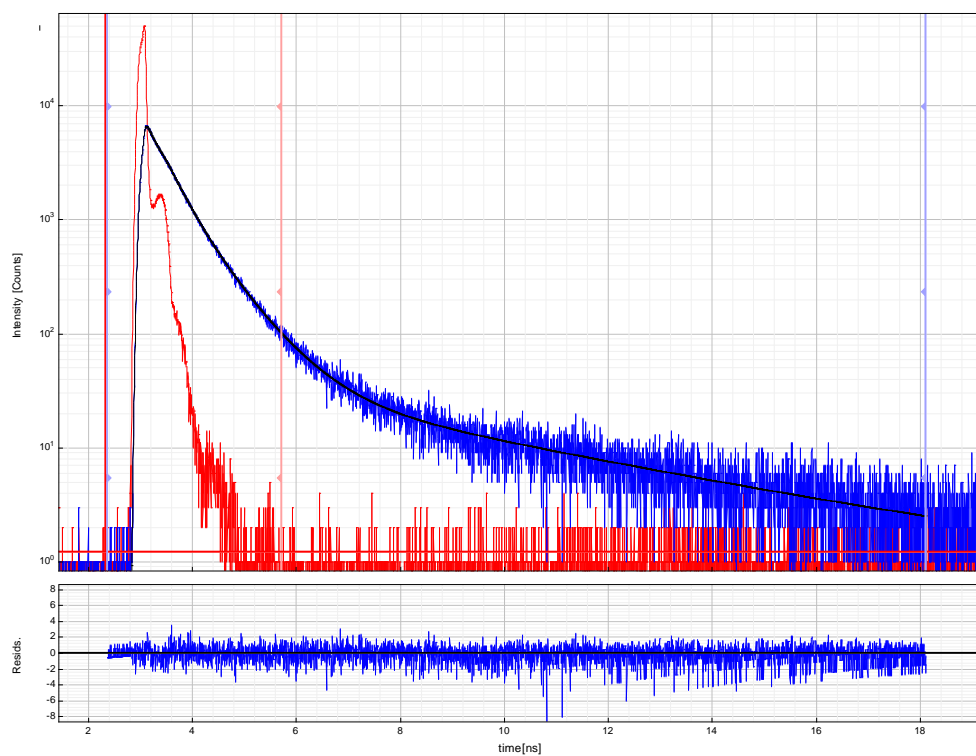


Fig. S2. Three exponential reconvolution of 8-azaxanthine,  $\chi^2 = 1.237$ .