

Attosecond electron–spin dynamics in Xe 4d photoionization

Documentation for the shared data

There are 7 RABBIT scans used in the publication. Scan01, 03, 04, 06, 07 are xenon scans and Scan02, 05 are neon scans. In each scan, the time of flight (seqxx.csv) and converted kinetic energy (seqxxe.csv) of the electrons are given.

In the .csv file, the first column is the index of the laser shots. From the second column, the time of flight in second (seqxx.csv) and kinetic energy in eV (seqxxe.csv) of the electrons produced by this laser shot are recorded. The number of electrons in this laser shot corresponds to the columns with a applicable number. The index of the laser shots that are missing in the datasheet means there is no signal detected.

To achieve a good spectral resolution, we may add a particular retarding potential in each scan to shift the energy region of interest to low energy region. It means the real kinetic energy is the recorded kinetic energy+retarding potential. The retarding potential for each scan is given below:

Scan #	Retarding potential (V)
01	0
02	40
03	0
04	0
05	50
06	0
07	0

The step of time delay between pump and probe beams and number of steps used in each scan (41 or 51) are not fixed to ensure the same range of scan. e.g. seq23.csv of scan01 is the 23rd step of this scan and $0.25 \text{ fs} \times 22$ from the first step.

The step and scan range of each scan is given below:

Scan#	Step (fs)	Scan range (fs)
01	0.25	-20 ~ 20

02	0.2	-20 ~ 20
03	0.25	-20 ~ 20
04	0.25	-20 ~ 20
05	0.2	-20 ~ 20
06	0.2	-20 ~ 20
07	0.2	-20 ~ 20