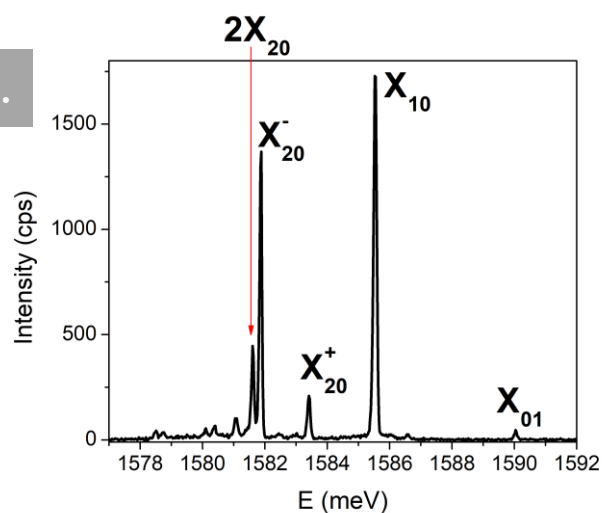
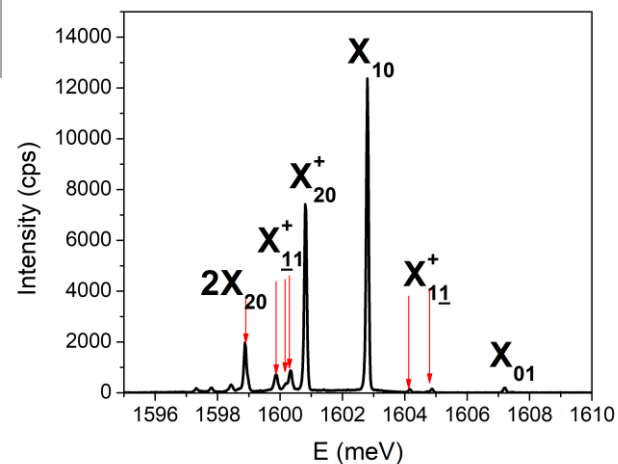


1.



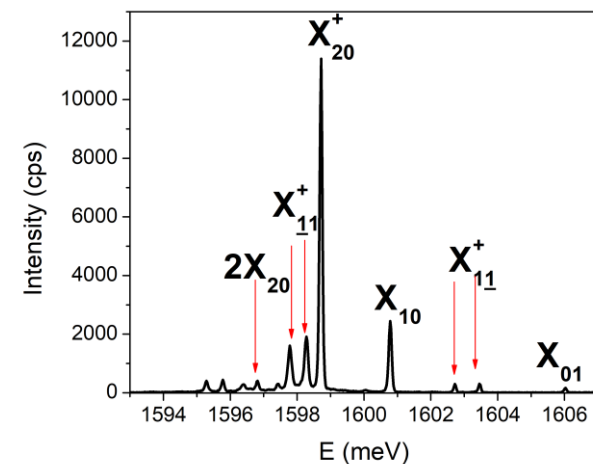
Negative/neutral: +trion ( $X_{20}^+$ ) intensity less than 0.5 of exciton.

2.



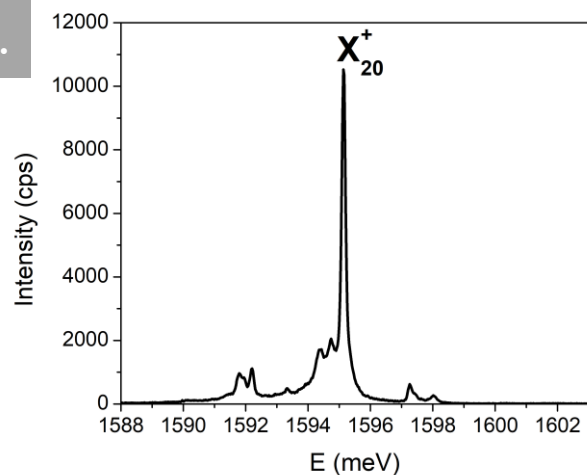
Semi neutral: trion intensity comparable to the exciton.

3.



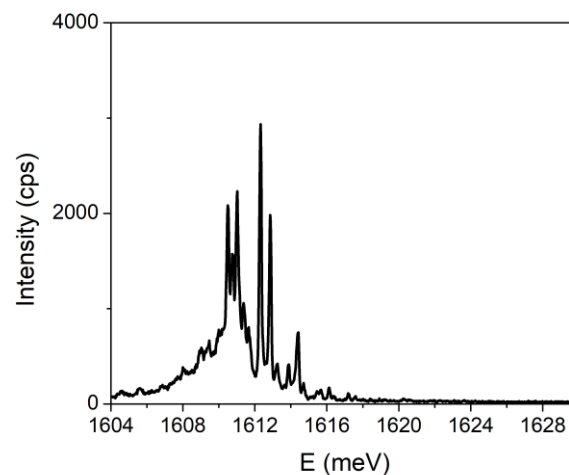
Positive: trion intensity is a few times higher than exciton, but peaks are not broadened or merge due to high charging.

4.



Spectral wandering: the linewidth much broader due to defects. There can be different types of broad peaks.

5.



Overcharged: very highly charged complexes that merge to this characteristic feature. Some dots will be like this from the beginning, others will become at high excitation power.