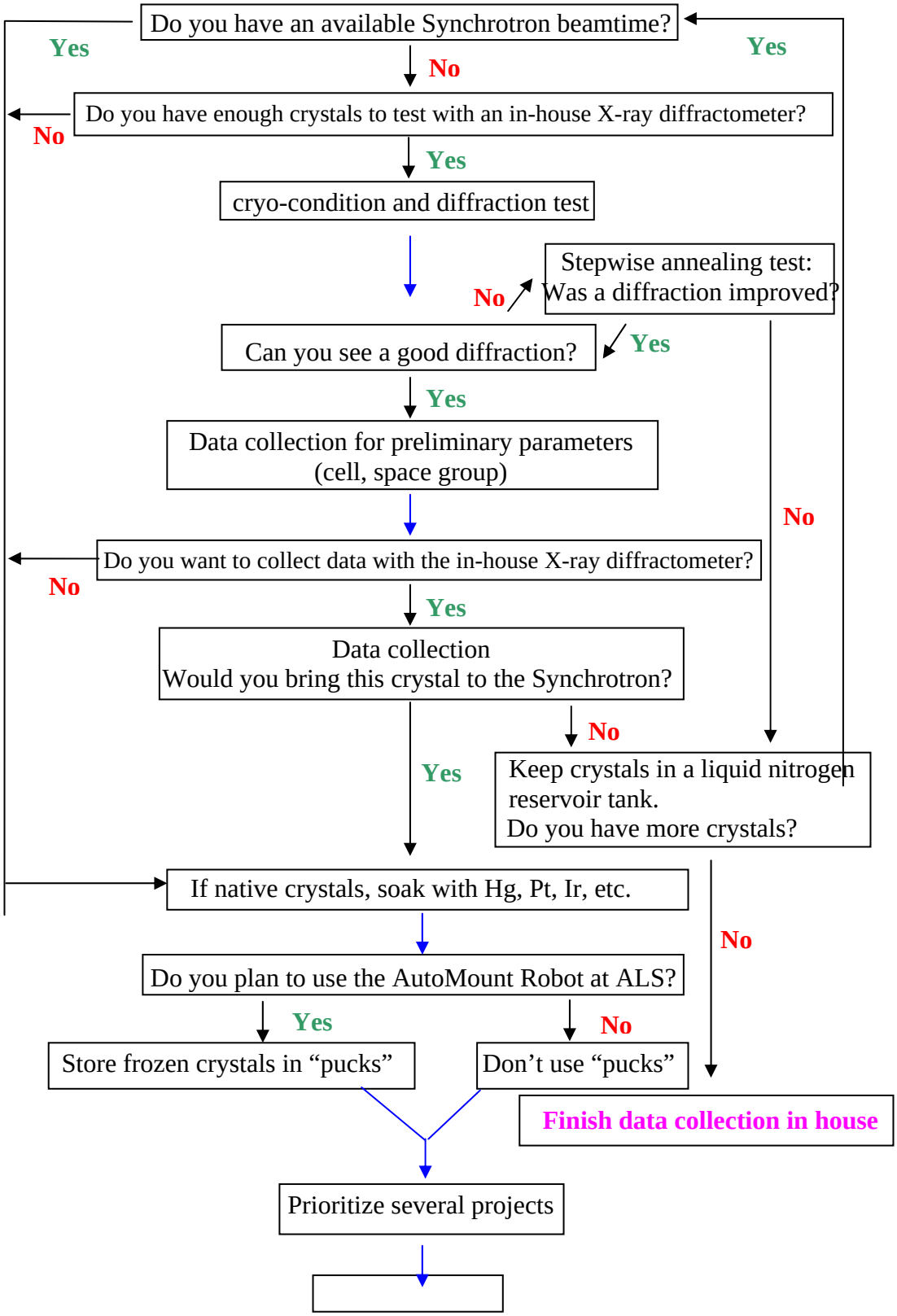
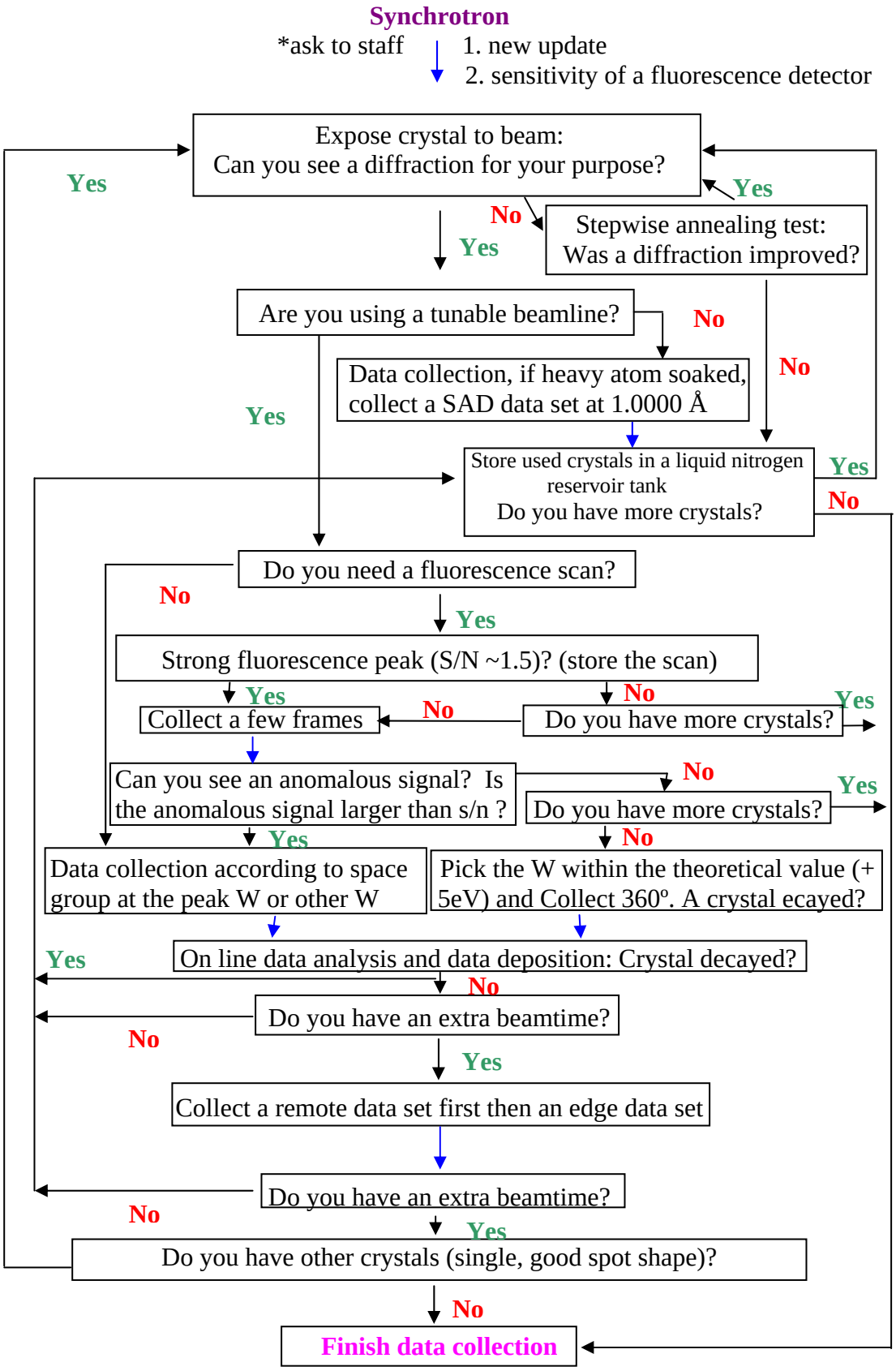
Figure 1. Data collection Strategy (2004)




Synchrotron
*ask to staff
1. new update
2. sensitivity of a fluorescence detector
Expose crystal to beam:
Can you see a diffraction for your purpose?
Yes
Yes
No
Stepwise annealing test:
Was a diffraction improved?
Yes
Are you using a tunable beamline?
No
Data collection, if heavy atom soaked,
collect a SAD data set at 1.0000 Å
No
Yes
Store used crystals in a liquid nitrogen reservoir tank
Do you have more crystals?
Yes
No
Do you need a fluorescence scan?
No
Yes
Strong fluorescence peak (S/N ~1.5)? (store the scan)
Yes
No
Collect a few frames
No
Do you have more crystals?
Yes
Can you see an anomalous signal? Is the anomalous signal larger than s/n ?
No
Do you have more crystals?
Yes
Yes
No
Data collection according to space group at the peak W or other W
Pick the W within the theoretical value (+ 5eV) and Collect 360º. A crystal ecayed?
Yes
On line data analysis and data deposition: Crystal decayed?
No
Do you have an extra beamtime?
No
Yes
Collect a remote data set first then an edge data set
Do you have an extra beamtime?
No
Yes
Do you have other crystals (single, good spot shape)?
No
Finish data collection