

## Extra thoughts on image labelling ([Jaffeux et al. \(2024\)](#) paper)

Please firstly refer to the crib sheets, this is just some further comments whilst I was processing images.

### General

I would say a lot of particles fall between the compact particle (1) and fragile aggregate (2) category, I have tried to best place them with the category description.

Likewise the orientation particles – especially columns, makes them hard to identify, again potentially ended up in compact particle group.

### Habit specific - Additional comments to the crib sheet

#### Compact particles (1)

- Anything rimed I would place in this category



E.g. a column, but is heavily rimed, so looks deformed.

- 'strong' aggregates too? i.e. aggregates that don't look fragile

#### Fragile aggregates (2)

- A more vague combination of bullet and columns (6) / complex assemblages (7)
  - Distinct crystals, but don't pertain to a specific habit

#### Columns and needles (3)



- I would say a column has predominantly straight parallel sides, potentially rounded at the top / bottom.
- Long oval?

#### Diffacted particles (0)

Super tricky category, have to give some examples.



On top of Jaffeux examples, images with unusual protrusions/ weird tails top + bottom.

Also put in context of the rest of the crystal, if it looks out of place, it is potentially diffacted. Again, at the discretion of the person labelling.

#### Unknown (11)

- This is for particles (mainly when I was labelling quickly) that were not easily distinguishable.
- Ideally your label will clearly fall within 0-9, or whichever it most strongly resembles.