**Type of experiment**: SEM (label as appropriate)

**Author(s)**: Uzair Rehman, Muhammad Zubair

**Comments:**

This is an example for a metadata template using SEM images as an example.

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*PLEASE DO NOT CHANGE THIS – USE COMENTS TO INCUDE MORE INFO!*

**Legend:**

**Bold** shows the metadata to be included

(brackets) show what type of value is associated, e.g. ‘string’ *“this is a string”*, int *5*, float *3.33*, or fixed set of options *[“red”, “blue”, “green”]*.

*Italic* font shows the example user input

Light blue highlights meta data to be included in a CoScInE mask for new ressources

Light green highlights meta data that is important but is preserved in other files for now and could later be captured automatically (please still include here explicitly!)

Light yellow highlights meta data that may be inserted as part of another experiment (here = “metallographic preparation” or might be better to keep with the imaging records – t.b.d.

Light grey that this meta data is not essential but might be good include (please do include here whatever meta data you can think of for now!

Please define all but the most trivial of acronyms!

You can provide structure to your metadata by including a **[descriptive header]** and then including sub-pieces of metadata tab-indented.

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**Operator** (string)

*Uzair Rehman*

**Experiment ID** (string)

*R68\_03919*

**[Sample information]**

**Specimen ID** (string)

*180704\_C076\_Name15:M-9*

**Parent sample specimen ID**(string)

*Mg-Ca\_19, solid solution, 2017-05-18*

**Sample location** (string)

*Longitudinal cross-section*

*25% depth from top surface*

**[Sample preparation]**

**Preparation routine** (string)

*Metallo\_03*

[this might include (here or leaded from “Metallo\_03”9

**Grit** (multiple int)

*4000*

**Grit material** *(“SiC”, “Al2O3”)*

*SiC*

**Suspensions [µm]** (multiple int)

*5, 3, 1, 0.05*

**Material suspension** (“diamond”, *“Al2O3”*)

*Diamond*

**Solvent** (“isopropanol”, ethanol”, “water”, “oil”)

*Isopropanol (ethanol, water)*

*Isopropanol*

**Date of preparation** (date)

DD.MM.YYYY

**Sample storage** (“air”, “dissicator”, “high vacuum”, “protective gas – Ar”,”…”)

*Dissector*

**Instrument used** (string)

*FEI Helios / IMM*

**Detectors used** (“SE”, “BSE”, “In-Lens”,….)

*SE, BSE*

**Comments** (string)

*Columnar grain boundary*

**[This is per image (to be extracted automatically) from data bar/image itself/meta data where available]**

**Accelerating voltage [kV]** (float)

*5*

**Current [mA]** (float)

*1.5*

**Magnification** (float)

*10,000*

**Image width [µm]** (float)

*2*

**Image size [px(width) x px(height)]** (tuple(int))

*1500 x 1000*

**Acquisition mode** (set [“Line scan”, “Zig-zag scan”)

*Line scan*

**Stage tilt (°)** (float)

*0*

**[Data Environment as an example of non-standard but useful records]**

**Temperature [°C]** (float)

*25*

**Relative Humidity {%]** (float)

*70*

**Environmental protection during specimen transfer** (string)

*Glove box*

**Environmental gas** (string)

*Nitrogen*