**Appendix 2**

Recommendations for slide preparation when working with AMOR or System AMOR2

1. Mount only a single specimen in the center of each field. Microfossil images may not merge with the white border of the slide at high tilting angles.
2. Specimens should be mounted in upright and in north-south orientation as perfectly as possible, with the apertural facing upwards, see also Knappertsbusch (2016 and 2021a). The better the manual montage of a specimen in keel view is, the easier will be the automatic orientation into the targeted final standard keel position.
3. Use slides with a black and smooth, non-reflective, matt surface in order to avoid failure of functions. Plummer cells from Kreativica@ have shown to have ideal properties for digital imaging.
4. AMOR has an automatic character detection implemented, which avoids misinterpretation of numerals as particles. However, this function slows down the processing speed of a sample. It is recommended to disable number detection and manually erase white numerals in each field with a black filt-pen.
5. If a sample has a wide variation of shell sizes, a slide should preferably be populated with rather uniform particle sizes. An ideal separation are sub-sets of ≥100 m and <100 m size fractions. It facilitates searching of the best magnification for every specimen, especially at very small sizes, where depth of focus becomes very narrow. In addition, it will accelerate automated orientation and imaging.
6. At large specimen numbers, distribute specimens to several slides with similar sizes and avoid mixing small and large sizes in the same slide.
7. When orienting and imaging series of fields in automatic mode, AMOR and System AMOR 2, pre-select neighbouring fields for similar specimens. When imaging series of fields in single mode, use AutoIt script AMOR\_Manual\_Drive\_v10.exe and also select neighboring fields for similar specimens.
8. Avoid mounting specimens into the corner fields of a slide because otherwise the system gets confused by bright border areas of the slide instead of focussing on the bright particle.
9. Compose measurement slides with similar morphotypes, e.g. do not mix transitional forms with end-member morphotypes because the orientation algorithm for automatic positioning in keel-view is shape-sensitive and is different for biconvex or umbilico-convex profiles.