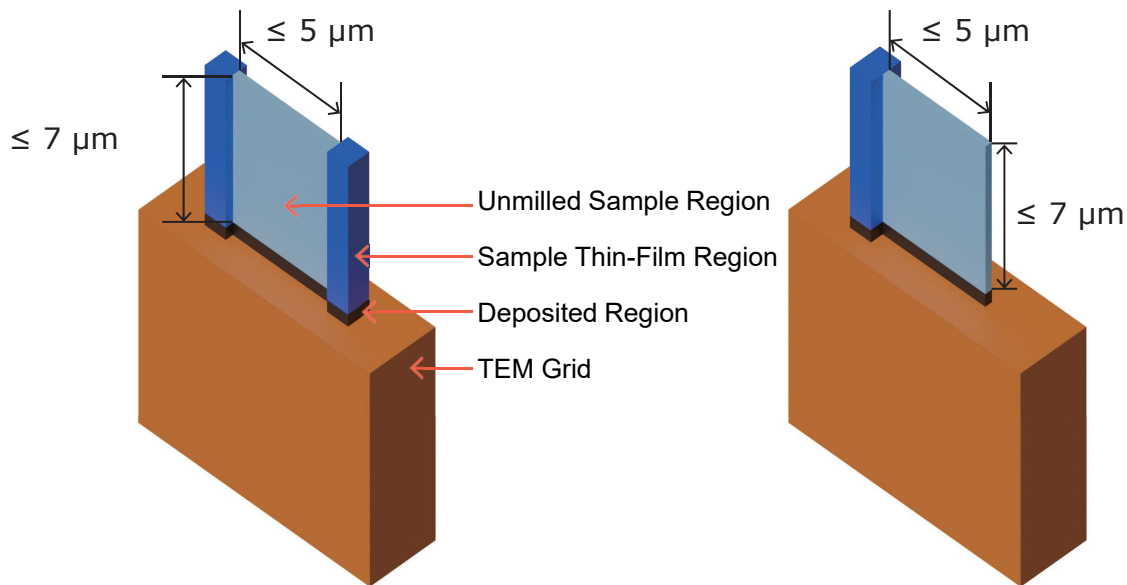


Precautions for Preparing FIB Samples of Magnetic Materials for TEM

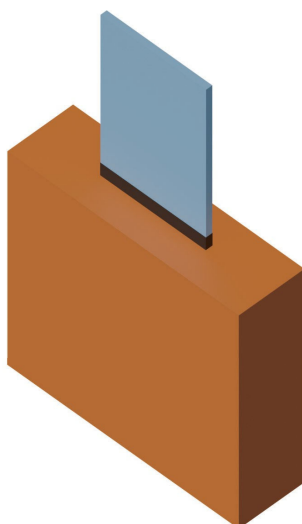
- Even small samples processed by FIB can deform inside a TEM due to magnetic forces.
- To prevent deformation or damage of the thin-film region, leave an unmilled area to act as a support pillar, as shown in the figure below.

OK



- Ensure that all contact surfaces between the sample and the TEM grid are fixed with deposited material (deposition).
- Leave an unmilled region. As shown in the figure on the right, leaving it on only one side is acceptable.
- The thin-film region should be no more than $5 \mu\text{m}$ wide and $7 \mu\text{m}$ high, as shown in the figure.

NOT RECOMMENDED



Even if all contact surfaces between the sample and the grid are fixed with deposited material, **do not** use a self-supporting thin-film structure without an unmilled support region when working with magnetic materials.