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## 🌐 Bleaching and UV decontamination of materials

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MPI EVA Ancient DNA Core Unit

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### ABSTRACT

Protocol for reducing DNA contamination on materials (e.g. quartz glass bottles, spatulas) used in the ancient DNA cleanroom by sodium hypochlorite (bleach) and UV treatment.



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## Note

The effectiveness of UV treatment for DNA decontamination strongly depends on the permeability of material for UV light. Perform bleaching and UV decontamination of materials only if indicated in the respective protocols/documents for material usage or preparation.

## Materials

Material	Supplier	Cat. no.
Material to be decontaminated (e.g. quartz glass bottles, spatulas)	various	-
Sodium hypochlorite 12 % (bleach)	Roth	9062, 3
Water	Sigma Aldrich	1153332500
Zip lock bag/ storage container	various	-

## Equipment

- Plastic basin (e.g., Roth, cat. no. 1598.1)

## Protocol

1. Put plastic basin into a chemical fume hood and fill with the material you want to decontaminate.
2. Pour bleach (12% Sodium hypochlorite) on top of it until it is fully submerged.

### Safety information

#### Caution when working with sodium hypochlorite (bleach)

Sodium hypochlorite (bleach) is corrosive, which means it can irritate or burn your skin or eyes. It can also corrode metals. When mixed with certain other chemicals (e.g. Guanodinitiocynate) or cleaners, it can produce toxic gases.

Only use sodium hypochlorite (bleach) in well ventilated rooms while wearing protective gear (gloves, goggles).

3. Bathe equipment ~15 min with occasional shaking the basin to ensure all surfaces are in contact with sodium hypochlorite.
4. After incubation rinse equipment thoroughly with tap water and let it dry on a clean surface (e.g. aluminum foil, laboratory tissue) under in a chemical fume hood (2-3 days).

## Note

### [Note]

For spatulas: Store spatula vertically on the draining rack so that the remaining liquid can drain out. If some liquid stays in the spatula, try to remove it mechanically via flipping the spatula with your fingers.

5. UV treat dry materials following the protocol attached in the Appendix.

6. Store cleaned and UV treated equipment in an appropriate, clean storage container.

## Note

### [Labeling]

Label your storage container with date (JJJJMMDD), initials and 'bleached and UV treated'.

## Note

### [Note]

Silica bottles do not need a storage container. Close them properly and put them into the stock storage.

7. Label the storage container with content, date and your initials.

## Appendix

### [SPACE HOLDER FOR UV TREATMENT PROTOCOL]