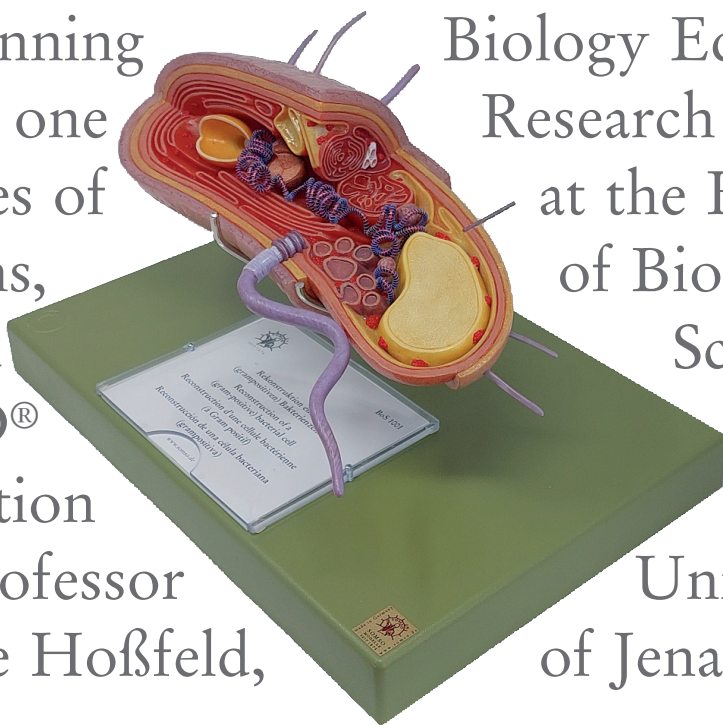




Beginning
of a new one
model series of
micro organisms,
being developed
from SOMSO®
in co-operation
with Professor
Dr Uwe Hoßfeld,



Biology Education
Research Group
at the Faculty
of Biological
Sciences,
Friedrich
Schiller
University
of Jena

BoS 1001 • Reconstruction of a (gram-positive) bacterial cell

Made from SOMSO-PLAST®,
Enlarged: 310.000:1

Design based on the illustration
used in Ude & Koch (2002, page 27).
Assessment of the model by
Professor Dr Uwe Hoßfeld of
the Biology Education Research
Group, Beehouse, Friedrich Schiller
University Jena.

The model cannot be disassembled
but can be removed from the stand.
Height 22 cm, width 39 cm
(model width 31,5 cm), depth 26 cm,
weight 2.2 kg.

- Shown are:**
- Basal structure
 - Capsule
 - Flagellum
 - Storage granule
 - Lipoprotein layer
 - Cell membrane
 - Mesosome
 - Murein layer
 - Pilus
 - Polyphosphate granule
 - Polysomes
 - Periplasm
 - Thylakoids
 - Vacuole
 - DNA

Model Structure

On the outside, the cell wall of
gram-positive bacteria has a 20 to
80 nm thick murein layer (peptido-
glycan), which is separated from the
cell membrane by the narrow peri-
plasm. Gram-negative bacteria, on
the other hand, only have a 2 to 3 nm
thick murein layer, the outside of
which is covered in a thin lipoprotein
layer. However, both groups develop
an outer mucus layer (capsule),
which covers the cell in an even
thickness.

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