

Changes in revision2

Thank you very much for the very helpful suggestions!

Title: 'indications for' added

Abstract:

Line 30 'non-sessile, free-living lifestyle' exchanged

Lines 39-40 Last sentence reworded as suggested.

Fig. 10, color code explained in caption; scale bars enlarged in (i) to (l).

Line 503 reworded as suggested

Line 521 Spitzenkörper corrected

Line 543 (micro) deleted

Line 736 reworded as suggested

Line 753ff moved from Summary and conclusions; second sentence reworded: There are a number of different organisms, such as bacteria (e.g. *Deinococcus radiodurans*), archaea (*Thermococcus gammatolerans*) or microscopic fungi (e.g. *Cladosporium sphaerospermum*), which fulfill this requirement; see review in Matusiak (2019).

Lines 788-789 reworded as suggested