"Candidatus Alysiosphaera europaea"

Resembles: several other *Alphaproteobacteria* and *N. limicola* I and III
Probes: class specific: ALF-968 [7]; Species specific: Noli-644 [8]
Frequency occurrence (200 samples; 175 WTPs):

- observed with A FI ≥ 1 in 31 samples
- observed with A FI ≥ 3 in 4 samples

Characteristics
N.B.: Filaments are in general more robust when the population is larger, viz. when the filaments grow fast.

- bent/curled filaments, occasionally tangled;
- free in the liquid phase as well as inside the flocs;
- filaments not very long, length usually 200- 300 µm;
- filaments not branched;
- not motile;
- cell diameter usually 1.0 - 1.3 µm, occasionally up to 2.5 µm;
- no sheath;
- attached growth absent;
- septa and constrictions clearly visible;
- small population: the cells are usually almost spherical. Large population: more variation in cell shape (spherical, disc or discoid shaped cells);
- no sulphur storage, but other granules might be present inside the cells;
- Gram negative or somewhat Gram variable;
- usually Neisser negative.

See "*Candidatus* Alysiomicrobium bavaricum" for remarks, physiology, occurrence in activated sludge, control options and references.

Slide show images

- 1-2: morphology at a low magnification
- 3-6: diameter 1.0 - 1.3 µm; almost spherical cells
- 7-9: diameter 1.0 - 1.3 µm; discoid cells

- 10-12: diameter 1.0 - 1.3 µm; disc shaped cells
- 13-17: more robust filaments; disc shaped and discoid cells
- 18: usually Gram negative
- 19: sometimes Gram variable
- 20: only occasionally Neisser positive
- 21-22: FISH images with probe Noli-644