

Thiothrix-7

Resembles: some Type IF-34 representatives

Probe: Class specific: Gam42a [10], group-specific G123T [7] and TNI [16]

Frequency occurrence (200 samples; 175 WTPs):

- observed with a FI \geq 1 in 2 samples
- observed with a FI \geq 3 in 2 samples



Characteristics

- long bent filaments;
- free in the liquid between the flocs;
- filament length \gg 200 μ m;
- filaments not branched;
- not motile;
- cell diameter 2.5 - 3.0 μ m;
- sheath present;
- without attached growth;
- septa and constrictions between the cells clearly visible;
- almost square cells;
- *in situ* sulphur storage;
- Gram variable;
- Neisser negative.

Occurrence in activated sludge

Thiothrix-7 was observed in two WTPs treating wastewater from pulp & paper and food industries. Due to the limited number of observations, it is not possible, however, to draw final conclusions concerning a possible correlation of this morphotype with a specific industrial branch.

See *Thiothrix-1* lemma for remarks, physiology, control strategies and references.

Slide show images

- 1: morphology at a low magnification
- 2-5: almost square cells, surrounded by a sheath
- 6-7: *in situ* sulphur storage (small granules)

- 8: Gram variable
- 9-10: FISH images with probe TNI