

22th INTERNATIONAL SPECIALIZED COURSE
OPERATION AND CONTROL OF ACTIVATED SLUDGE
PROCESSES USING MICROBIOLOGICAL ANALYSIS
Perugia - Italy

FILAMENTOUS MICROORGANISMS IN ACTIVATED SLUDGE

Haliscomenobacter hydrossis

UNDER PHASE CONTRAST OBSERVATION

OBSERVATION AT 1000X	Sulfur Granules	<i>In situ</i>	-
		<i>S Test</i>	-
	Other Cell Inclusions		-
	Filament Diameter		0.5 μm
	Filament Length		10 - 100 μm
	Filament Shape		Straight, Bent
	Filament Location		Extends from floc surface, Free in liquid between the flocs
	Cell Septa clearly observed		-
	Indentations at Cell Septa		-
	Sheath		+
	Attached Growth		-, +
	Cell Shape and Size		-
	Notes:		Rigidly straight
	UNDER DIRECT ILLUMINATION		
Gram Stain		-	
Neisser Stain	<i>Filament</i>	-	
	<i>Granules</i>	-	

Phylogenetic
affiliation:

Bacteroides

Causes:

- Low DO
- High/moderate F/M
(low/moderate sludge
age)

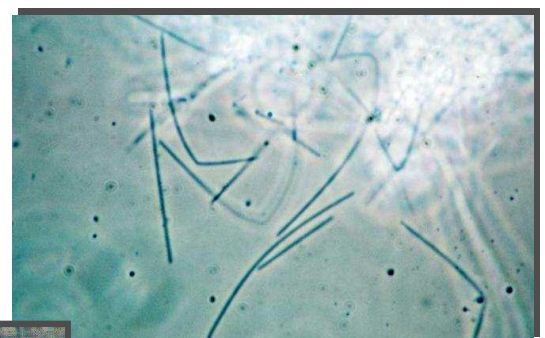
Remedies:

- Raise DO
- Lower F/M
- Install anoxic/aerobic/
/anaerobic selectors
- Cl₂



Rigidly straight

Extends from floc surface



Bent

