

CYSTIDIA

Characters and Character States 07

Cystidium location:

CH, cheilocystidium

PL, pleurocystidium

Cystidium type:

BR, brachycystidium

CR, chrysocystidium

GL, gloeocystidium

SE, seta

TR, trabecular cystidium with cystesium

XX, nonspecific cystidium

1. Secretion - external:

0, absent;

1, present

2. Secretion type - external:

0, absent;

1, calcium oxalate crystals;

2, electron-dense threads in electron-light matrix (*Suillus americanus*);

3, electron-dense, granular (*Mycena leaiana*);

4, fingerprint-patterned encrusting material (*Agrocybe praecox*);

5, electron-dense granular substance mixed with electron-light material (*Baeospora myosura*);

6, electron-dense material with spherical regions of electron-light material (*Xerula radicata*);

7, membrane-bound, electron-light droplets with lipid (*Resicinum bicolor*);

8, watery REDEFINE

3. External secretion location:

0, absent;

1, apical;

2, basal;

3, over entire wall;

4, apical between inner and outer wall layers

4. Wall layers at or near apex excluding pellicle:

0, unlayered;

1, two-layered;

2, three-layered;

3, four-layered

5. Wall differentiation:

- 0, absent;
- 1, with electron-light inclusions in outer surface (*Suillus americanus*);
- 2, lipids underlying wall (*Agrocybe praecox*);
- 3, small, electron dense spots distributed throughout wall (*Baeospora myosura*);
- 4, small, electron-dense spots in outer layer of apical wall (*Stobilurus tenacellus*);
- 5, thick wall with uniform layers (seta) (*Marasmius cohaerens*);
- 6, separating layers with internal secretions (*Resicinum bicolor*)

6. Pellicle:

- 0, absent;
- 1, present

7. Nuclear condition:

- 0, absent;
- 1, uninucleate;
- 2, binucleate;
- 3, multinucleate

8. Glycogen:

- 0, absent;
- 1, present

9. Endoplasmic reticulum differentiation:

- 0, absent;
- 1, stacked membranes (*Psathyrella candolleana*);
- 2, small tubules (*Phanaerochaete chrysosporium*);
- 3, stacked membranes and connecting tubules (*Mycena leaiana*);
- 4, connected sheet (*Auriscalpium vulgare*);
- 5, electron-dense enlarged deposits in cisternae (*Tylopilus felleus*);
- 6, irregular, then spherical to ellipsoid granules with electron-light core deposited in endoplasmic reticulum (*Fayodia dusta*)

10. Smooth endoplasmic reticulum:

- 0, absent;
- 1, present

11. Rough endoplasmic reticulum:

- 0, absent;
- 1, present

12. Golgi apparatus:

- 0, absent;
- 1, single layer, Golgi equivalent;

13. Golgi vesicles:

- 0, absent;
- 1, nearly uniform contents (*Coprinopsis cinerea*);
- 2, structured contents (*Suillus americanus*)

14. Differentiated vacuole type:

0, absent;

1, small vacuoles with small dense peripheral or central deposits with or without tubules (tubular invaginations) (*Auriscalpium vulgare*);

2, apical compact tubular structure overlaying granular layer(s) (*Mycena leaiana*);

3, dense peripheral deposit with hollow center (*Tylophilus felleus*);

4, large vacuole with electron-dense matrix surrounding electron-light regions giving it a foamy or spongy appearance (*Hypholoma fasciculare*);

5, three-dimensional membranous aggregate and fibrous clumps (*Volvariella bombycina*);

6, small vacuoles with many tubules (*Phanaerochaete chrysosporium*)

15. Peripheral cytoplasmic organization near wall:

0, absent, i.e., somewhat organelle-free zone bordering the cell wall with or without occasional vacuoles (*Suillus americanus*);

1, present, e.g., organelles accumulating near or appressed to the cell wall (*Mycena leaiana*)

16. Filament bundles: REDEFINE

0, absent;

1, present, small;

2, present, large

17. Microbodies:

0, absent;

1, more or less round;

2, pleomorphic with zones of less electron-dense matrix (*Phanaerochaete chrysosporium*)

18. Basal septal occlusion:

0, absent;

1, present (*Suillus americanus*)

19. Internal septa:

0, absent;

1, continuous or walled off