

***Tetraedron minimum***

**(A. Braun) Hansgirg, 1889**

**Most likely ID:** n.a.

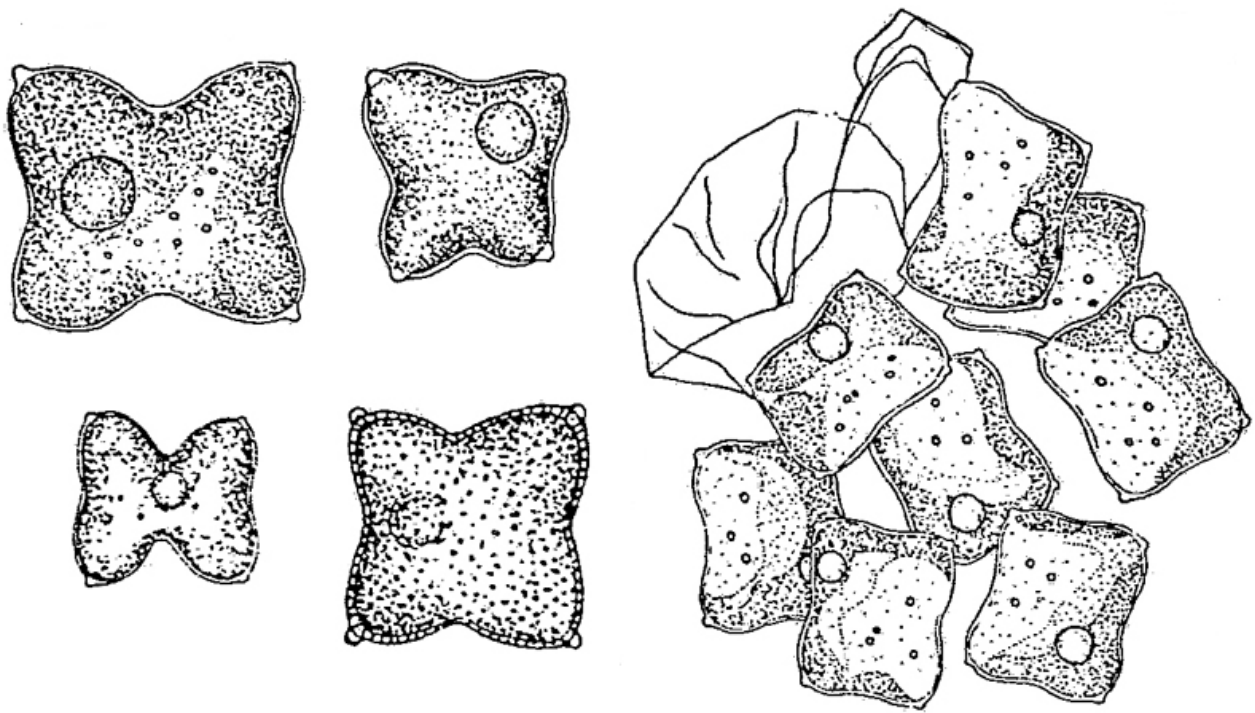
**Synonym:** n.a.

**Sampling location:** [Simmelried](#)

**Phylogenetic tree:** [Tetraedron minimum](#)

**Diagnosis:**

- body quadrangular, flat, four corners with papillae
- sides often concave in young cell, convex in older cells
- cell wall smooth, wrinkled or warty
- diameter 5-25 µm
- one parietal chloroplast
- one pyrenoid
- asexual reproduction with 2-4-8 autospores
- planctonic lifestyle



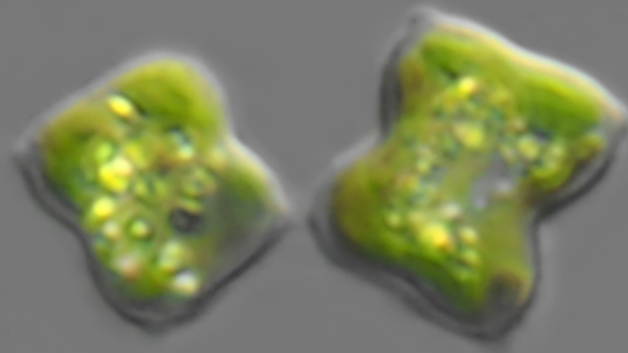
after Kováčik

### Tetraedron minimum

*Tetraedron minimum* is known as an alga with a planktonic lifestyle. However, I have so far only been able to detect this very small alga in the detritus in the [Simmelried](#). In my population, the cells were always smaller than 10  $\mu\text{m}$ . Most of the time the cells were only 5-6  $\mu\text{m}$  in diameter. In addition, I only very rarely find *Tetraedron minimum*.

Interestingly, *Tetraedron minimum* is found in large quantities in fossil layers of the „Messel Pit“ (Germany). The sediments excavated there are 48 million years old. The „Messel Pit“ is known worldwide for the prehistoric horses found there. However, the extraordinarily fine sediments have also preserved microscopic living creatures. Along with *Botryococcus spec.*, *Tetraedron minimum* is the most common fossil algae found there.

Tetraedron minimum  
Obj. 100 X

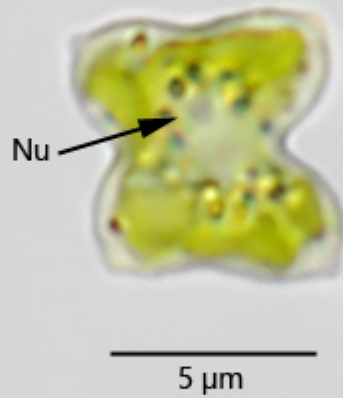


10  $\mu\text{m}$

© Martin Kreuz

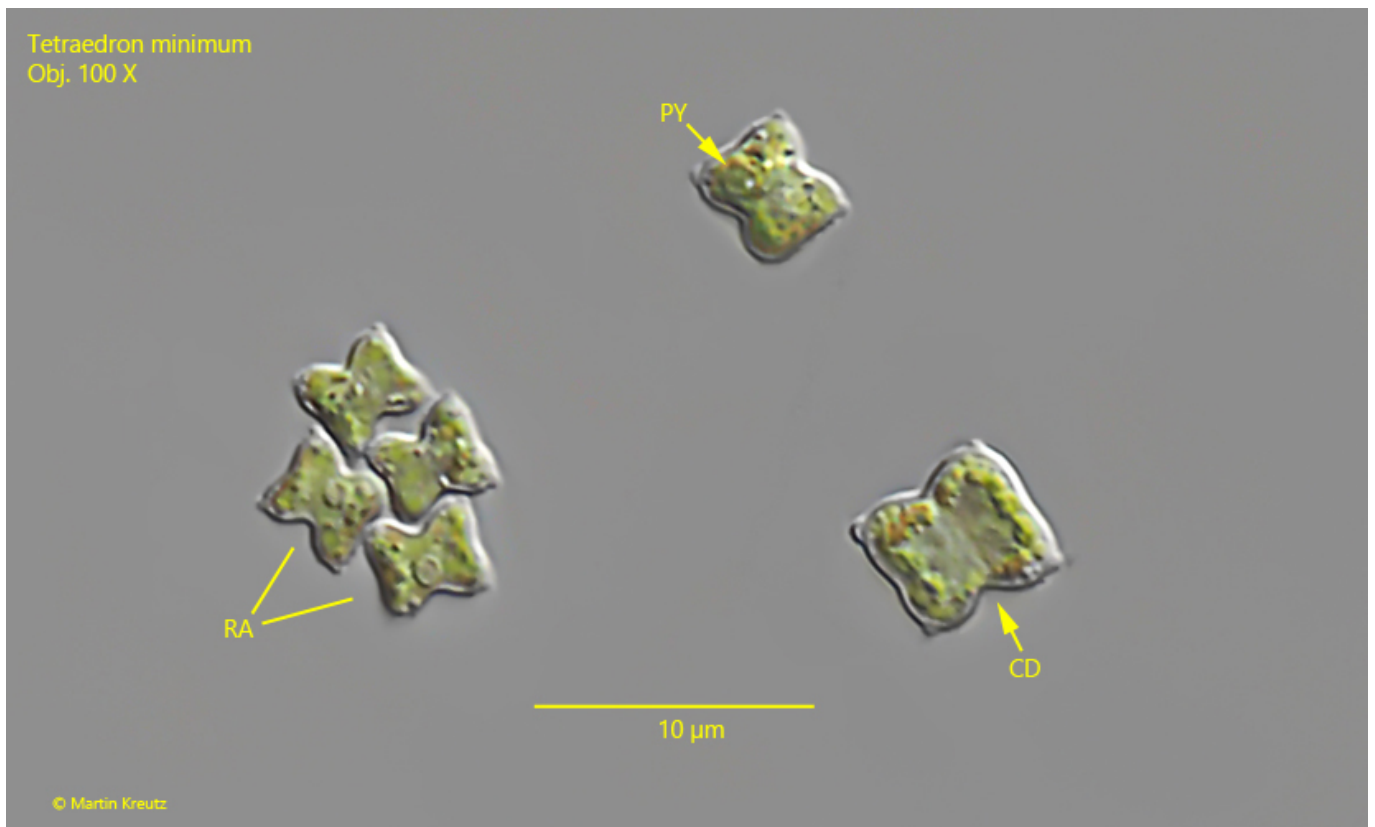
**Fig. 1:** *Tetraedron minimum*. L = 4.7-5.9  $\mu\text{m}$ . Two young specimens with concave sides. Obj. 100 X.

Tetraedron minimum  
Obj. 100 X



© Martin Kreutz

**Fig. 2:** *Tetredron minimum*. L = 6.4 μm. A young specimens with concave sides in brightfield illumination. Note the nucleus (Nu) near the center of the cell. Obj. 100 X.



**Fig. 3:** *Tetredron minimum*. At the left side 4 released autospores (AS). In cell at the right side a cell division (CD) has started. Above a vegetative, young cell. PY = pyrenoid. Obj. 100 X.