

**Nos. 120.**

Prepared from strain Ak880 (voucher specimens: TNS-AL-61880 in TNS). This culture strain was prepared from TNS-AL-57761 in TNS. Nagahama port, Lake Biwa, Shiga Pref. Coll. A. Tuji, 12/iii/2013.

*Stephanodiscus binderanus* (Kütz.) WilliKrieg., Pflanzenforschung **10**: 20. 1927.

Basionym: *Melosira binderana* Kütz., Bacill. *55*. pl. 2. f. 1. 1844.

Lectotype (designated in Geissler et al., 2006 by R. Jahn & H. Håkansson): [icon!] pl. 2, fig. I:1 (upper chain) in Kützing (1844).

Lectotype locality: “Moorgräben bei Hamburg”, leg. F. Binder (Germany).

Epitype (designated in Geissler et al., 2006 by R. Jahn & H. Håkansson): B 400040219 (ex “Krieger 6169”; material documented in Håkansson (2002) as fig. 162, 163, 165–167).

Epitype locality: “Spree bei Berlin”(Germany), September 1924.

This taxon is very closed to *S. binderanus* var. *oestrupii* (A.Cleve) A.Cleve. The variety *oestrupii* is also known from Lake Biwa (Tuji & Houki 2001), and it might be same species. Both variety are differ in spine morphology, but very difficult to divide and need further work on these two varieties. Jahn & Håkansson in Geissler et al. (2006) designated the lectotype and epitype for this species, however they only presented the LM photograph not SEM, and the ultra-structure of spines was not examined for this designated types.

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