

# Phytochemical Profiles of *Targionia lorbeeriana*: Grown *in vitro* and in the Open

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Z. Naturforsch. 56c 726-730 (2001); received March 13/April 17, 2001

*Targionia lorbeeriana*, Essential Oil, Liverwort

The terpenoid constituents of *Targionia lorbeeriana* grown *in vivo* and *in vitro* were compared. The analysis of the dichloromethane extract was performed by HPLC-UV and by HPLC-MS. The obtained results revealed that the sesquiterpene lactones isolated from the dichloromethane extract of the wild *Targionia lorbeeriana* were also produced by the liverwort in *in vitro* cultures, in the same relative amounts.

The composition of essential oils was evaluated by GC and GC-MS. Both, the yield and diversity of the essential oil obtained from wild growing *T. lorbeeriana* gametophytes were higher than those growing *in vitro*. Although, a significant number of compounds produced *in vivo* were maintained *in vitro*, a considerable number of other ones were not detected. Instead, under *in vitro* conditions, some new compounds were found which do not accumulate under wild conditions.