

Special Issue

Biotechnology of Plant Tissue Culture

Message from the Guest Editors

Alsophila spinulosa (Wall. ex Hook) Tryon is one of the few remaining tree-shaped ferns on Earth. It is a "living fossil" of Mesozoic ferns and is of great significance for the study of paleoclimate and paleo-environmental changes. It has attracted much attention in the field of science for its important scientific research, ornamental, and medicinal value. In the present study, we first report on the tissue culture and regeneration of *A.*

spinulosa. Furthermore, a complete germination of the spore on an MS medium to the rooting sporophyte's transplantation is established. Simultaneously, the different factors affecting the formation process of the sporophytes are investigated. In addition, we directly induced sporophytes from the gametophytes, as well as callus induction and callus differentiation into the sporophytes. Moreover, we directly induced new sporophytes from the young sporophytes, which improved its proliferation and regeneration system. This Special Issue mainly introduces the in vitro propagation, tissue culture and regeneration ability, and the process of somatic embryogenesis.

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