Full Paper _____ *Thematic Section:* Biochemical Research.
Registration Code of Publication: 14-37-1-138 *Subsection:* Biosynthesis.
Publication is available for discussion in the framework of the on-line Internet conference "*Chemical basis for the rational use of renewable natural resources*".
http://butlerov.com/natural_resources/
Contributed: February 27, 2014.

The influence of the permanent magnetic field on growth and biological activity of callus culture of *Polyscias filicifolia (Moore ex Fournier) Bailey*

© **Nadezhda S. Pivovarova**, **Nadezhda V. Kirillova**,*+
Larisa I. Slepyan,* **Irene E. Kaukhova**, and **Margaret A. Strelkova**
Department of Biochemistry. Saint Petersburg State Chemical-Pharmaceutical Academy.
Prof. Popov St., 14. Saint Petersburg, 1977376. Russia.
Phone: +7 (812) 234-90-33. Fax: 234-60-44. E-mail: kirillovanv47@mail.ru

*Supervising author; +Corresponding author

Keywords: *permanent magnetic field (PMP), medical plant tissue culture, antioxidant enzymes, biosynthesis of biologically active agents.*

Abstract

The article is devoted to the analysis of the influence of permanent magnetic field (PMP) on growth indicators, the ability to biosynthesis of the biologically active agents (BAA), as well as the level of activity of antioxidant enzymes: superoxide dismutase (SOD), catalase and peroxidase of a strain cells of Polyscias filicifolia (Moore ex Fournier) of Bailey, which were cultivated by biotechnological way. The obtained data have shown that the earlier the plant cells were influenced by PMP, the greater were the changes in the studied indicators.