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Thermodynamics and kinetics of germination of seeds of white lupine

© Ekaterina A. Grishina,¹ Sergey L. Belopukhov,¹⁺ and Alexander S. Tsygutkin²

¹Department of Physical and Organic Chemistry; ²Laboratory of White lupine. Russian State Agrarian University – MSHA Named After K.A. Timiryazev. Timiryazevskaya St., 49. Moscow, 127550. Russia. Phone: +7 (499) 976-32-16. E-mail: belopuhov@mail.ru, asz.ru@mail.ru

*Supervising author; ⁺Corresponding author

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Abstract

Research has been carried out into the growth dynamics and the development of white lupine seeds at the initial stages of germination in pre-treatment of seeds by physiologically active substances. Seed treatment was performed by extracts from humidified flax, which contained 1-2% humic and fulvic acids. Germination was performed at temperatures of 12 and 22 °C. It is established that the dynamics of the seedlings at 12 °C with the use of extracts is not inferior to the development of seedlings at 22 °C without treatment. The kinetics of growth and development of seedlings is characterized by effective growth rate constants and thermodynamic values.