# FLUORESCENT PROPERTIES OF β-DIKETONE PHOSPHORUS-CONTAINING DENDRIMERS

***Dendrimers are branched cascade macromolecules that have globular structure with multivalent central nucleus, intermediate branches of the structure and the terminal functional groups on the surface. The features of structure of dendrimers provides the possibility to easy functionalize of their surface for elaboration of new specific reagents for selective extraction of metal ions, effective catalytic systems, high sensitive fluorescent probes and luminescent markers. The synthesis of new classes of dendrimers with preassigned physical-chemical properties continues to attract increasing attention. Therefore investigation of fluorescent properties of new phosphorous-containing dendrimers with terminal β-diketones groups seems an actual problem.***

***It was established, that the β-diketones phosphorous-containing dendrimers are characterized by higher fluorescence in comparison with other dendrimers which have benzaldehyde and chlorobenzene terminal groups. At that the intensity of fluorescence of phosphorous-containing dendrimers with terminal β-diketones groups increases approximately in two times with every next generation. Interesting, that their fluorescent intensity increases as much as the number of terminal β-deketones groups increases. The dendrimers of third and fourth generation are characterized the high fluorescent properties. The increasing of fluorescent properties of protein in the presence of molecules of β-diketones phosphorus-containing dendrimers causes the perspective of such dendrimers application as fluorescent nanomarkers.***

***Key words: fluorescence, dendrimers, β-diketones, fluorescent nanomarkers.***