

THE NATURAL PRODUCT CHEMISTRY OF TERPENOIDS - A TRIBUTE TO THE REMARKABLE LEGACY OF ACADEMICIAN PAVEL VLAD

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Abstract. This paper is devoted to the research priorities and some new lines in terpenic compounds studies, developments of methods of investigation into fine organic synthesis established by academician Pavel Vlad. The name of academician Pavel Vlad is associated with a number of remarkable fundamental and applied ideas. Under his guidance and with his direct contribution new approaches to determining the absolute configuration of a series of labdanic diterpenoids and-converting them into bi-, tri- and tetra-cyclic compounds have been designed. Novel universal methods for synthesizing tetrahydrofurans from 1,4-glycols, olefins from tertiary alcoholic acetates, as well as dienones by means of photodehydrogenation of unsaturated cyclic ketons have been developed by academician Pavel Vlad. It has been established that the 1,4-glycols not only oxidizes the primary and secondary alcohols in the respective carbonyl compounds, but also dehydrates the tertiary alcohols. The scientific school founded by academician Pavel Vlad is leading in the investigations of superacidic cyclisation reaction of terpenoids, and also of the regularities of the mentioned reaction in different classes of terpenic compounds, such as alcohols, their acetates, acids, esters, phenylsulphones. Molecular rearrangement was performed in the diterpene and sesquiterpene series. Efficient ozonolytic methods for norlabdanic compounds preparation, as well as a new theory for evaluating the structure-ambra odour relationship have been developed.

Keywords: labdane diterpenoid, tetrahydrofuran, ozonolytic method, superacidic cyclisation, structure-ambra odour relationship.

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