Abstract

The present invention relates to the pharmaceutical industry and more particularly to the provision of an agent for inhibiting membrane virus replication. The object of the invention is to provide an agent based on fullerene polycarboxylic anions for suppressing the activity of membrane viruses in treating diseases caused by these viruses. For accomplishing said subject, there is proposed a group of inventions united by a common inventive concept, said group comprising a method for preparing compounds, studying the mechanisms of action, provision of pharmaceutical compositions, and developing methods of treating with their use. Said object t is accomplished by selecting such quantitative ratios of the components and reaction conditions, which ensure the preparation of polyaddition products. It has been established that in carrying out the synthesis the amount of the amino acid must exceed the amount of fullerene by more than 50 times. The product prepared by the proposed method has an unlimited solubility in water, required bioavailability, high efficiency of action on non-infected cells, low toxicity. The content of the main substance in the target product is at least 90%. The process is adaptable to streamline production and can be used in the pharmaceutical industry. Compositions of drugs for and methods of treating infectious diseases caused by human immunodeficiency virus (HIV), herpes simplex virus (HSC) and hepatitis C virus (HCV) have been developed.