which have attached sulfonation sulpho -SO3H. . After inoculation depressurized containers, polymer samples were washed thoroughly to remove surface residues of styrene and gravimetric measurements [1].

Results and discussion: overall, the development of ideas about selective and "long-range" effects in the early stages radiaion-chemical transformations of macromolecules is not only of fundamental scientific interest, but also is the basis for the formulation of new principles of radiation stabilisation and radiation modification of polymer systems. We can talk about the approaches that use relatively low doses and low concentrations of additives or chemically modified units entered in a certain position. Table 1 presents the results of gravimetric studies.

Table 1. The results of the comparison of radiation-chemical and thermal polymerization gravimetric method

Radiation-chemical polymerization				Thermal polymerization			
№	The mass Exodu. PVDF, g	Weight after irradiation, g	The grafting yield,%	№	The mass Exodus. PVDF,g	Mass vaccination PVDF, g	The grafting yield,%
1	0,204	0,252	23,5	1	0,215	0,218	1,4
2	0,249	0,277	11	2	0,219	0,220	0,5

Conclusion: studies have shown that the degree of grafting of styrene monomer to a PVDF thin films is significantly higher than in the case of thermal grafting without irradiation. During irradiation formed a sufficient number of free radicals which occurs side prishivkoy styrene. In the case of thermal graft, you may need significantly more time for the formation of free radicals. Further studies will be devoted to the sulfonation of samples of PVDF grafted with styrene to give them a proton-conducting properties and the synthesis of proton-conducting functional membrane.

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EFFECT MACHINING OF BATCH ON LINEAR PARTICLE SIZES

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Powder metallurgy occupies a special place among various metal processing techniques in modern industry, as well as it contributes to the solution of many important problems in the manufacture of products and materials. One of the main problems in this industry is the production of metal powders [1].

In the report the effect of mechanical activation on the starting components will is reviewed and dependence of the particle size parameters of mechanical activation expected to reveal.

Self-propagating high-temperature synthesis (SHS) is a part of powder metallurgy allowing to synthesize different substances with the specified parameters. SHS is motion process of the a chemical reaction wave upon the mixture of starting components to form a solid final product. This method has several advantages, but one of the main

advantages of the SH-synthesis is the ability to manage the process of synthesis at different stages [2]. It is also worth noting that the high resource efficiency of this method is compared to traditional methods of powder metallurgy.

Mechanical activation of the starting components is a method of controlling the synthesis reaction in the preparatory phase, is widely used in SHS. This method is a transfer of mechanical energy to sample with the aim of deformation and fracture of a solid body by the accumulation of point defects and dislocations, allowing not only to receive objects with linear dimensions in the range from tens of micrometers to a few nanometers, but also speed up chemical reactions in the synthesis of solid-phase compounds [3].

In this study, the sample used powders La_2O_3. Mechanical activation was carried out in a planetary ball mill AGO-2C, where the metal balls with a diameter of 6 mm are used as grinding bodies. The influence of the centripetal acceleration of the grinding bodies under the machining of lanthanum oxide was investigated, and also the effect of machining time was studied.

Is a result of the research the dependence of the particle size parameters of mechanical activation (time, centripetal acceleration) was revealed, which can be used to establish the optimum mode of mechanical activation in a planetary ball mill.

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MATERIALS USED IN IMPLANTOLOGY

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Metals have long been used in medicine as a material for implantation. The first metal implant was invented in the 18th century; during the second half of the 19th century silver wire was used increasingly for fixing. After the creation of stainless V2A-steels (Cr-Ni-steels; Krupp), new opportunities for the use of steel alloys in surgery appeared. In 1936 Co-Cr-alloys (“Vitallium”) for osteosynthesis and dental applications were introduced. Titanium and its alloys have been applied since 1950-s. All materials are corrodible. It means that all of them may be oxidized in some cases. As a result of corrosion loss of material takes place. Therefore, experts use metals forming a passive oxide layer which is capable (ideally) of repairing itself if damaged.

Ceramics - products from inorganic, nonmetallic materials (clay, for example) and its mixtures with mineral additives, is manufactured at high temperature and cooled then. The use of ceramic prostheses and implants in medicine is one of the new areas that have received significant development in the last decade due to advances in the field of structural ceramics, production of high-purity powders, the processes of their formation and processing of ceramic products.

Aluminum oxide (α-Al_2O_3; corundum) – biologically indestructible ceramic, mainly used for implants, withstand mechanical load.

Dental ceramics are widely, used in dental technology for facing metal dentures (dental bridges and crowns) and for artificial teeth modeling. The first porcelain dentures were made in XVII century; first porcelain teeth - in the