The aim of this work was to develop methods of synthsis of phosphonic derivatives of the isoindolinone **B**, in which the phosphonic moiety would be connected to the heterocyclic ring through one, two or three methylene groups.

The synthesis of **17a-b** and **18a-c** containing phosphonic moiety attached to the isoindolinone block through three methylene bridges was achieved by exploiting reactions of organolithium derivatives **13a-b** or **14a-c** with **16b**[135].

To synthesize **20a-b** and **21a-c** with two methylene groups between the phosphonic and the isoindolinone moieties an addition of organolithium derivatives **13a-b** or **14a-c** to diethyl vinylphosphonate (**19**) was performed. In case of the derivatice **14c** formation of a bis-phosphonic compound **22** apart from the expected product **21c** was observed[135].

Product **26** in which the linker between the phosphonic and the isoindolinone fragments is one methylene group was synthesized by means of reduction of unsaturated phosphonate **24**, which has been obtained by addition of dimethyl metahanephosphonate lithium salt to *N*-methylophtalimide (**4a**) [194-195].

It was established, that *N*-substituted phtalides **4b-c** and **4i-k** undergo reactions with lithium salt of dimethylmethanephosphonate (**23**) giving products **24-25**, **27-40** and **41**. The type of the product obtained depends on the substituents on substrate[196].