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In the theoretical part of the diploma paper there are summarized antiviral effects of butenolides isolated from natural resources as well as substances obtained by synthesis.

Methyl-(*E*)-2,3-dibromacrylate has been synthesized within the scope of the experimental work as a precursor for methyl-(*E*)-2-brom-5-*subst*.phenylpent-2-en-3-ynoates which have been obtained by Sonogashira coupling with different alkynes. Syntheses of some derivatives have been optimized by modification of reaction conditions.

Methyl-(*E*)-2-brom-5-*subst*.phenylpent-2-en-3-ynoates can be used as starting compounds for synthesis of potential biological active lactones.