# On One Probabilistic Model of a Biochemical Reaction

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Let us consider the reaction $a_1 + a_2 \xrightarrow{k} x$ of reagents $a_1$ და $a_2$. The construction of a probabilistic model of these reagents is reduced to the construction of a probabilistic model of reaction $a \xrightarrow{k} x$, where $a = \min(a_1, a_2)$. The following results

$$E(a(t)) = a(0)e^{-kt},$$
$$E(x(t)) = a(0)(1-e^{-kt}),$$
$$D(a(t)) = D(x(t)) = a(0)e^{-kt}(1-e^{-kt}).$$

are valid.

For the reagents $a_1 = CH_2COOC_2H_5$ (ethyl acetate) and $a_2 = NaOH$ (sodium) the numerical example also is considered.