

Bifurcation diagrams of the dynamic regimes of *de novo* protein synthesis at the activated synapse depending on the recycling contribution to the maintenance of the pool of active receptors on the postsynaptic membrane (k_{rz}).

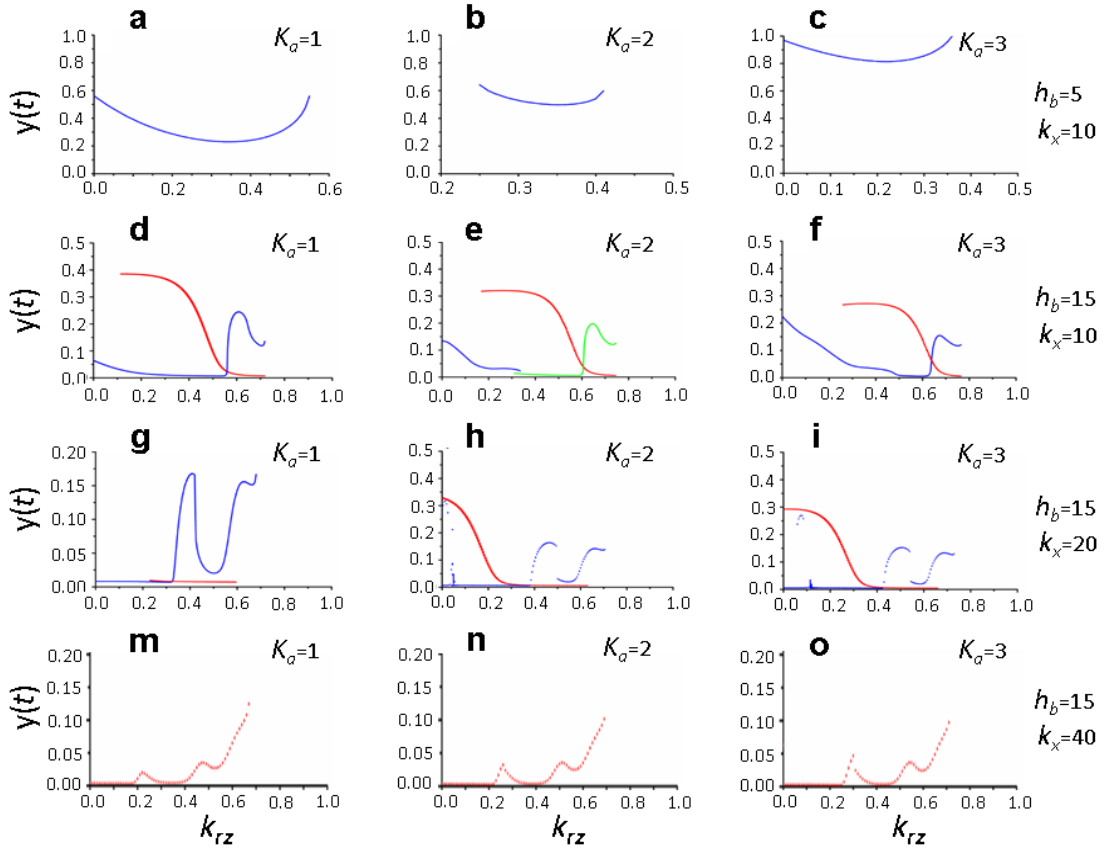


Fig. S3. Dynamic regimes of system (1) given that the mechanism of exposure of *de novo* synthesized proteins to the postsynaptic membrane is linear $h_x=1$. Bifurcation diagram constructed at the intersection of the trajectory $(x(t), y(t))$ with the Poincaré map $x(t)=2$ in the phase space (x, y, z) . Parameter values: $\tau_a=1$, $\tau_b=2$, $\tau_r=3$, $\tau_e=3$, $h_x=1$ (a-o); $h_b=5$, $k_x=10$, $k_b=100$ (a-c); $h_b=15$, $k_x=10$, $k_b=100$ (d-f); $h_b=15$, $k_x=20$, $k_b=100$ (g-i); $h_b=15$, $k_x=40$, $k_b=200$ (m-o); $K_a=1$ (a, d, g, m), $K_a=2$ (b, e, h, n), $K_a=3$ (c, f, i, o). Values of the remaining parameters are shown in the basic set (2). Different colors indicate different branches of the system (1) solutions.