The reactions were performed in a $CDCl_3$ solution (0.5 mL $CDCl_3$, 0.5 mmol of each of two studied complexes, 0.5 mmol of the nitrone) at 35 C and the reactions were monitored by ^1H NMR spectroscopy. Hexamethyldisiloxane was used as an internal standard. The spectra were registered immediately after the addition of the dipole to the reaction mixture and then after 0.25, 0.75, 2, 4, 9, and 20 h; after 36 h, the nitrone was not detected in the ^1H NMR spectra.

The ratio $\frac{k_1}{k_2}$ was obtained in accord with the formula

$$\frac{k_1}{k_2} = \frac{S(X)_t}{S(Y_i)_t},$$

where $S(X)_t$ and $S(Y_i)_t$ are integral intensities of signals of the C^3H proton of the oxadiazole ring from X and Y_i (**Scheme 2**).

The formula was obtained by simplification of the following expression:

$$\frac{k_1}{k_2} = \frac{[X]_t[B_i]_0}{[Y_i]_t[A]_0} = \frac{[(S(X)_t/a)/(S(HMDS)/a)][(S(B_i)_0/a)/(S(HMDS)/a)]}{[(S(Y_i)_t/a)/(S(HMDS)/a)][(S(A)_0/a)/(S(HMDS)/a)]}.$$

$$\frac{[B_i]_0}{[A]_0} = 1,$$

where

- $[X]_t$ and $[Y_i]_t$ are concentrations of X and Y_i, respectively, at certain time;
- $S(X)_t$ and $S(Y_i)_t$ are integral intensities of signals of the C^3H proton from X and Y_i, respectively, in the spectra registered at certain time;
- $S(B_i)_0$ is integral intensity of signals of the nitrile ligand protons in B_i (CH_3 from NMe_2, 6H, for B_1; CH_3 from NEt_2, 12H, for B_2 and α-CH_2 from NC_5H_{10}, 8H, for B_3) and $S(A)_0$ is integral intensity of signal of aromatic protons of A in the spectra registered upon the beginning of the experiment;
- a_j is number of protons displaying by corresponding group.