Supplementary Data

This supplementary data is a part of paper entitled "Adsorption of Remazol Brilliant Blue R Using Amino-Functionalized Organosilane in Aqueous Solution".

Adsorption Kinetic

From the adsorption data of RBBR onto AFOS was used to calculate the kinetic parameters such as pseudo first-order and pseudo second-order to obtain information of k_1 , k_2 and which model is fitted to the adsorption. Fig. S1(a) shows the pseudo first-order kinetic plot linier while Fig. S1(b) present the pseudo second-order plot linier. From the R^2 values, the pseudo second-order is fitted to the adsorption.

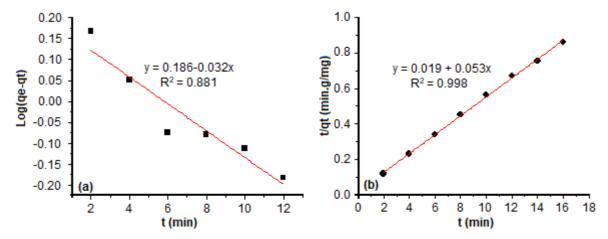


Fig S1. (a) Pseudo first-order and (b) Pseudo second-order kinetics for the adsorption of RBBR onto AFOS

Isotherm Adsorption

From Langmuir Equation below, it can be fitted Ce versus Ce/Qe plot shown in Fig. S2(a)

$$\frac{Ce}{Qe} = \frac{1}{K_L \times Q_m} + \frac{1}{Q_m}Ce$$

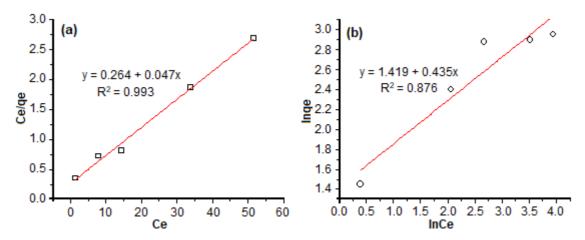


Fig S2. Isotherm (a) Langmuir and (b) Freundlich models plot curve

Based on Ce versus Ce/Qe graph can be obtained linier equation y=0.047x + 0.264. From this data, the Qm (monolayer adsorption capacity, mg/g) and Langmuir constant can be calculated as presented in Table 2 in main paper.

From Freundlich equation showed below, can be plotted InCe versus InQe graph shown in Fig. S2(b).

$$\ln Qe = \ln K_F + \frac{1}{n} \ln Ce$$

It was obtained a linier equation from InCe versus InQe plot graph, y=0.435x + 1.419. This data was used to measure the n and kf values shown in Table 2 in main paper.