

SUPPLEMENTARY INFORMATION for RSC ADVANCES

Electronic Supplementary Information

Comparative studies on the interaction of nitrofuran antibiotics with bovine serum albumin

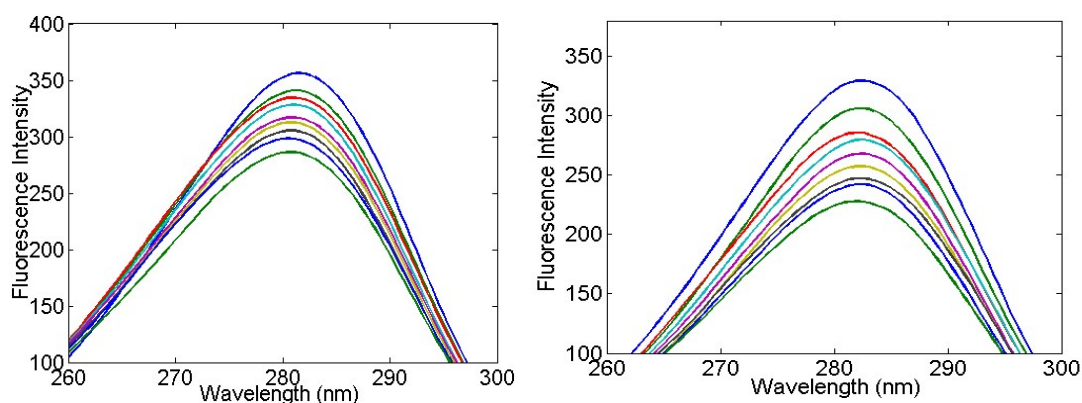


Fig. 1s. Synchronous fluorescence spectra of BSA in the presence of NFZ/NFT ($\Delta\lambda=60$ nm). ($c_{\text{BSA}}=6.67\times 10^{-7}$ mol L $^{-1}$, $c_{\text{NFZ/NFT}} = 0, 6.67, 13.34, \dots, 53.36\times 10^{-7}$ mol L $^{-1}$ for curves 1 to 9, respectively)

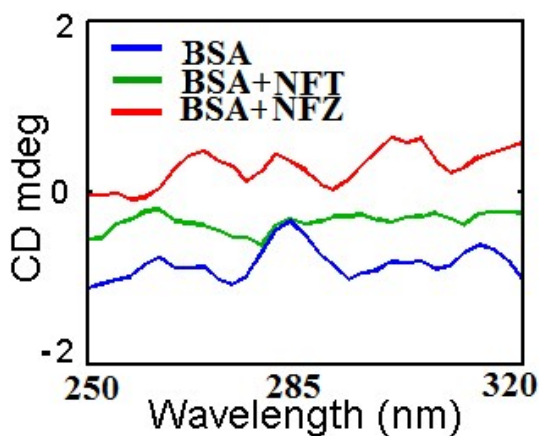


Fig. 2s. Near UV-CD spectra of BSA alone and in the presence of NFZ and NFT. ($c_{\text{BSA}} = 2.5 \times 10^{-7}$ mol L $^{-1}$, the molar ratio of NFZ/NFT to BSA is 4:1)

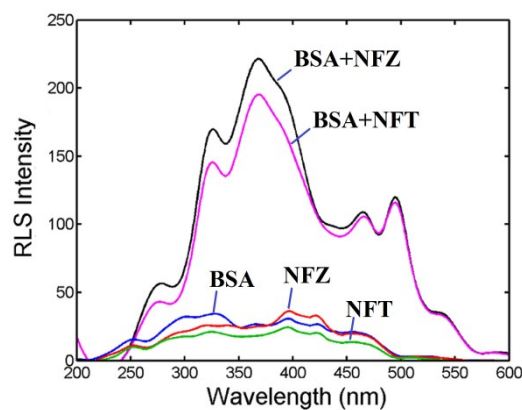


Fig. 3s. RLS spectra of the NFZ-BSA/NFT-BSA system at pH 7.4 and room temperature. Curve BSA: $c_{\text{BSA}} = 6.67 \times 10^{-8} \text{ mol L}^{-1}$; Curves NFZ and NFT: $c_{\text{NFZ}} = c_{\text{NFT}} = 2.67 \times 10^{-7} \text{ mol L}^{-1}$; Curves NFZ-BSA and NFT-BSA: $c_{\text{BSA}} = 6.67 \times 10^{-8} \text{ mol L}^{-1}$, the molar ratio of NFZ/NFT to BSA is 4:1.

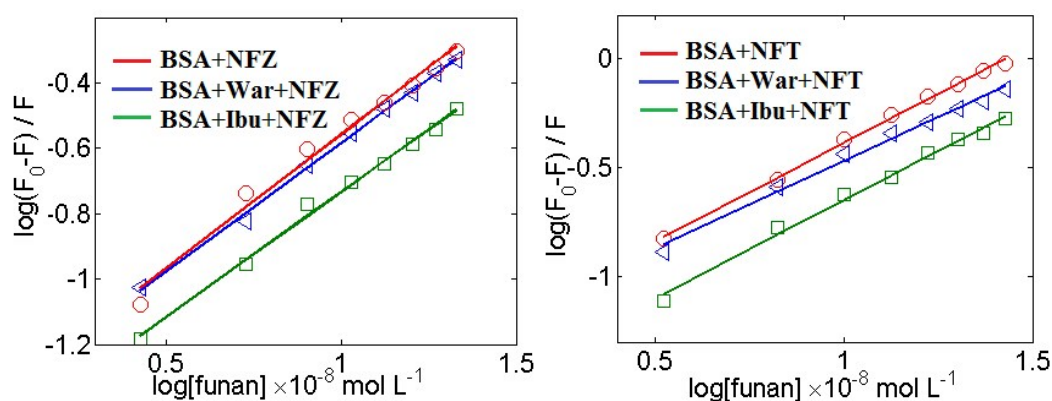


Fig. 4s. The plots of $\log(F_0 - F)/F$ versus $\log[1/[Q] - (F_0 - F)[P]/F_0]$ for the NFZ-BSA/NFT-BSA system at site markers warfarin and ibuprofen. ($c_{\text{BSA}} = c_{\text{warfarin}} = c_{\text{ibuprofen}} = 6.67 \times 10^{-8} \text{ mol L}^{-1}$, $c_{\text{NFZ/NFT}} = 0, 2.67, 5.34, \dots, 21.36 \times 10^{-8} \text{ mol L}^{-1}$ for curves 1 to 9, respectively).

Table 1s The binding constants of NFZ-BSA/NFT-BSA system in the existence of warfarin/ibuprofen at 298K

	$K_a (\times 10^6 \text{ L mol}^{-1}, \text{NFZ})$	$K_a (\times 10^6 \text{ L mol}^{-1}, \text{NFT})$
BSA	4.27	5.11
BSA:Warfarin	3.17	2.80
BSA:Ibuprofen	4.18	5.34