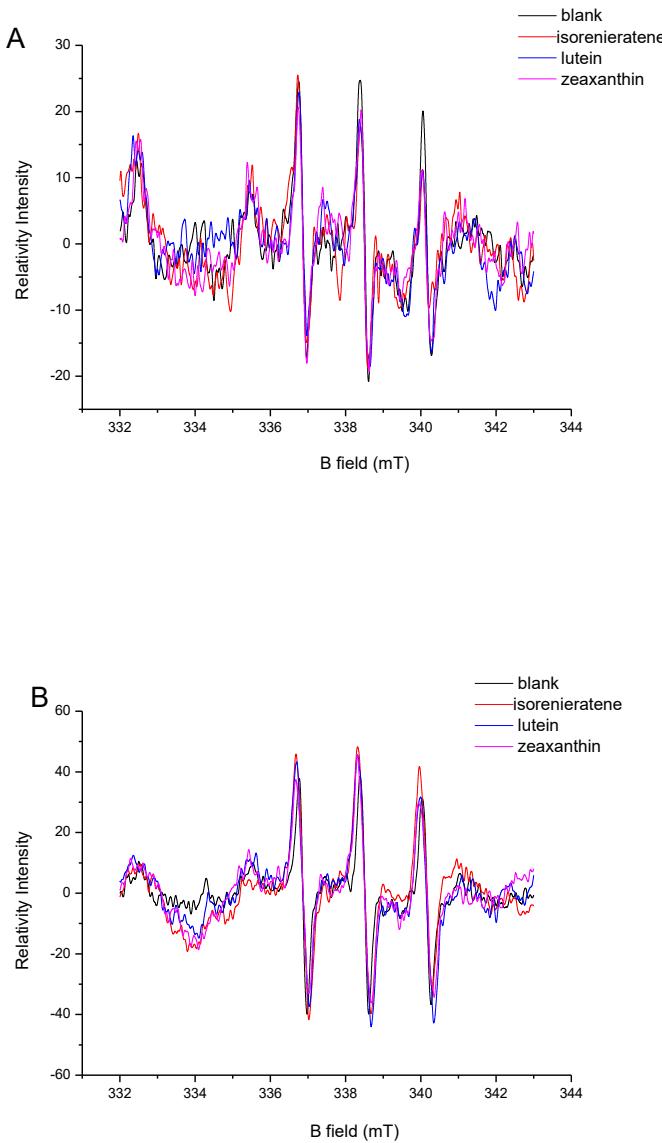
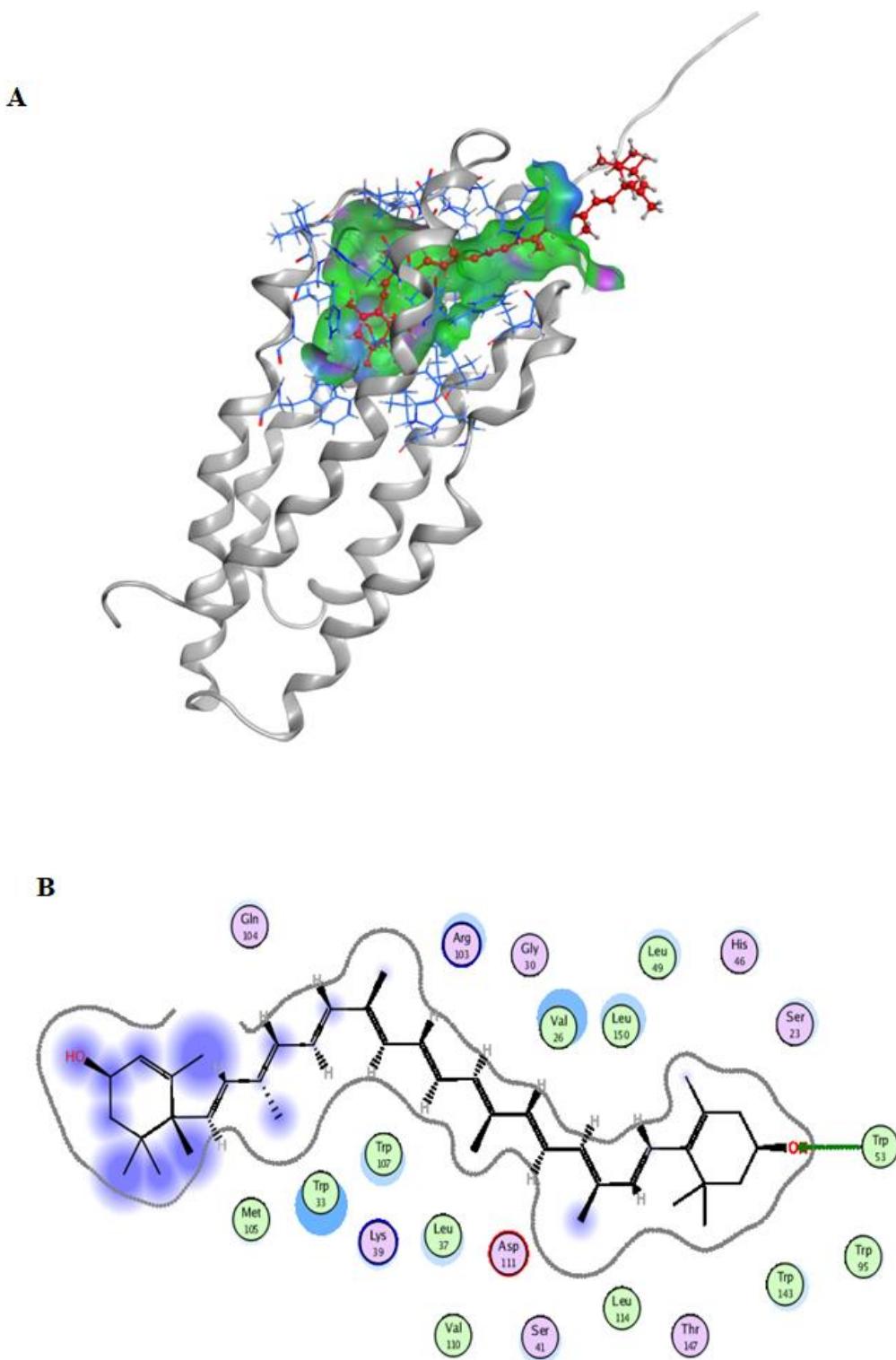


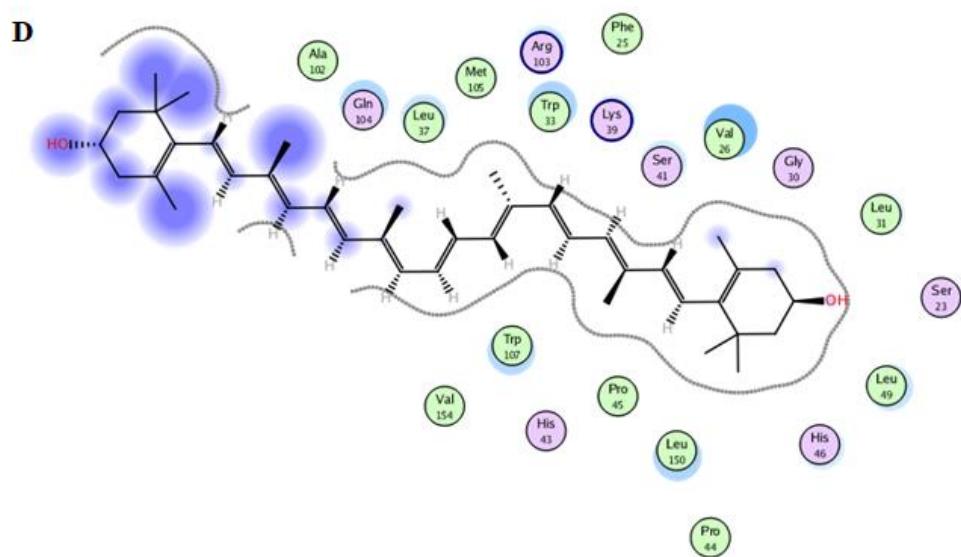
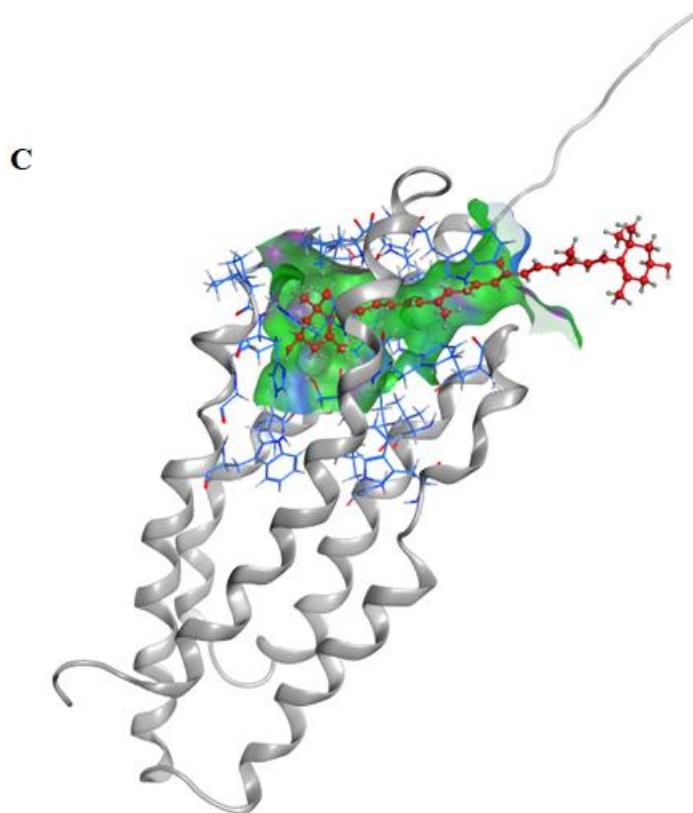
**Figure S1**



**Figure S1.** The singlet oxygen accumulations in model liposomes after 30 (A), 90 (B) mJ/cm<sup>2</sup> of UVB irradiation with or without pretreatments of carotenoids, respectively.

**Figure S2**





**Figure S2.** Interaction of lutein(A) and zeaxanthin(C) binding to hTSPO; Molecular contacts between lutein(B) or zeaxanthin(D) and amino acids of hTSPO.