

STABILITY OF HYDROXYSAFFLOR YELLOW A, SAFFLOR
YELLOW B AND PRECARTHAMIN FROM *CARTHAMUS*
TINCTORIUS L.

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Hydroxysafflor yellow A, safflor yellow B and precarthamin were isolated and purified from flower petals of *Carthamus tinctorius* L. with Sephadex LH-20 column chromatography, preparative TLC and preparative reverse HPLC. These three purified yellow pigments were identified by ^1H -, ^{13}C - and 2D-NMR data. The UV-vis measurement of hydroxysafflor yellow A, safflor yellow B, and precarthamin in MeOH showed absorption maxima of 399, 407 and 416 nm, respectively. Thermal stability of the purified pigments was carried out at pHs of 3.0 and 5.0, respectively. The half-life value of the reaction of hydroxysafflor yellow A at pH 5.0 was 53.48 h at 75 C. Activation energies of thermal degradation of the purified pigments were calculated.