

Solvent system	30% Water, 70% Acetonitrile	Dimethyl acetamide and methanol	acetonitrile: 1mM ammonium formate (70:30, v/v)
Flow-rate	1.5 ml/min	NA	400 $\mu$ L/min

Although each method was able to determine diacerein, however the detection technique used affects the sensitivity of the method to minimal concentrations of the analyte. The detection technique in the method of analysis employed in this work was fluorescence detector. Fluorescence detectors measure the ability of compound to absorb then re-emit light at given wavelengths; each compound has a characteristic fluorescence. The sensitivity limit of fluorescence detector is  $10^{-9}$  to  $10^{-11}$  gm/l. Method disclosed in Gurupadayya and Bharatheesha, 2010 is UV-visible detector which measures the ability of sample to absorb light. The sensitivity of this detector is approximately  $10^{-8}$  or  $10^{-9}$  gm/l. Shirwaikar et al., 2012 used the mass spectrometry which detects the ion current of an ionized compound. The detection limit of the mass detector is  $10^{-8}$  to  $10^{-10}$  gm/l. However, in both the UV and fluorescent detection techniques, an internal detector in the HPLC system is used while in the mass spectrometry detection technique two separate instruments are combined in order to produce the desired results. Clearly both UV and fluorescent detection techniques are cheaper and more available than mass spectrometry detection technique.