

Selective Membrane Sensors for the Determination of Sildenafil, Tadalafil and Vardenafil

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Selective sensors were developed for the estimation of Sildenafil, Tadalafil and Vardenafil. The membrane preparations are described by incorporating an appropriate ion exchangers with tetraphenyl borate or dinonyl naphthalene sulfonate and solvent mediator into a poly vinyl chloride matrixes. The potentiometric response was linear over the drug range of concentration between 1.0×10^{-6} to 1.0×10^{-2} mol/L and show a near-Nernstian with slope (53.70 ± 0.30 a , 53.22 ± 0.54 or 54.42 ± 0.38 , 53.61 ± 0.36 and 51.43 ± 0.25 , 53.51 ± 0.53 mV/decade) for the three drugs , respectively depending on their nature. The selectivity of sensors was reported to different related compounds. The sensors were applied successfully for the estimation of these drugs in their formulations.

Keywords: Phosphodiesterase Type 5 Inhibitor drugs ; Selective membrane sensors; Potentiometric estimation; pharmaceutical formulations

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