

**Application of Imidazolium Polymer for Solid-Phase Extraction of Matrine and Oxymatrine from *Sophora Flavescens Ait***

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A new ionic liquid-based polymer was synthesized by polymerization and modification. The matrine and oxymatrine were successfully isolated from *Sophora Flavescens Ait* (SFA) by using the imidazolium polymer as a special sorbent for solid-phase extraction (SPE). Different washing and elution steps were evaluated. The imidazolium polymer exhibited higher selectivity than the C18 and NH<sub>2</sub> sorbent. The bound amounts between the bioactive compounds and different proteins were obtained by application of this sorbent. The extract amounts of target compounds were not significantly decreased after three recycles of amino-imidazolium polymer.