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**Chemical composition, antioxidant potentials, and calcium oxalate anticrystallization activity of polyphenol and saponin fractions from *Argania spinosa* L. press cake**

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*Argania Spinosa* (L.) press cake possesses a wide range of biological activities, as well as a powerful therapeutic and preventive effect against chronic diseases. The goal of this study is to valorize the anti-crystallization properties against calcium oxalate crystals of *Argania Spinosa* (L.) press cake fractions as well as identifying its bioactive components. Chemical species identification was done using GC-MS analysis. The turbidimetric model was used to investigate crystallization inhibition in vitro. Fourier Transform Infrared Spectroscopy was used to characterize the synthesized crystals. Furthermore, both DPPH and FRAP methods were used to assess antioxidant activity. The results show that the fractions are equally important in the inhibition percentages of calcium oxalate crystallization. For the saponin and polyphenol fractions, the inhibition percentages are in the order of 83.49 % and 82.83% respectively. The results of the antioxidant activity by DPPH method show that the two fractions are equally important in the elimination of free radicals; the inhibition percentages were 77.87±4.21 and 89.92±1.39 for both polyphenols and saponins, respectively. FRAP method showed that the absorbance increases correlatively as a function of the concentration and the values are almost similar for both fractions and reaches maximum values in the order of 0.52±0.07 and 0.42±0.03 respectively for saponins and polyphenols. These findings demonstrate that both fractions are rich in bioactive chemicals and have an anti-crystallization capacity, allowing them to be employed in the treatment and/or prevention of stone formation.

**Recent Publications**

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