

TLC Fingerprinting of Chamomile

Chamomile is an herb well known in the western world as a bedtime tea. Chamomile tea can be found almost everywhere that tea is sold and is regulated as a nutritional supplement. Nutritional supplements are not well regulated, so adulteration can be a concern. Thin layer chromatography (TLC) is a fast and efficient technique that can detect components in a mixture. TLC fingerprinting uses a combination of solvents and conditions to create a series of plates that uniquely identify the plant. The compounds in chamomile will be characterized by their retention factor (R_f) and by their color response to various stains. Once pure chamomile has been characterized, commercially available samples will be tested to look for the presence of adulterants.



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