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Abstract

Analysis of *Lavandula angustifolia* Compounds Obtained by Different Extraction Types by GC-MS Technique †

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Abstract: *Lavandula angustifolia* is a medicinal plant with important benefits for human body, having antimicrobial and antioxidants activities. Scientifical data detalied the fact that lavender extract presented favorable characteristics to health, such as being antibacterial, antifungal, antidepressive or anticancer properties. The aim of this study was to establish the eficiency of extraction methods by identification and determination of compounds extracted from lavender plant. It were used different types of extraction: ultrasound (50 °C/2 h) and magnetic agitation (ambient temp./24 h), in pure ethanol and hydroalcoholic mixture (ethanol:ultrapure water = 50:50 *v*/*v*). It was utilised a GC-MS cromatograph equipment for detection and quantitative determination of lavender compounds extracted (ex. eucalyptol, linalool, camphor, terpinenol, linalylacetat, etc), an Elite-5MS (5% diphenyl methyl polysiloxane stationary phase) column and a linalool standard. Were established the optimal GC-MS separation parameters. In conclusion, it was observed that lavender sample extracted in ethanol, thru magnetic aggitation, at room temperature is a more efficient method than the others, because it were observed more compounds (over 20) than in the others laveder extracts samples (approx. 6).

Keywords: GC-MS; linalool; extract plant

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