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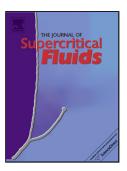
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## **ACCEPTED MANUSCRIPT**

1	Winter savory: supercritical carbon dioxide extraction and mathematical modeling of
2	extraction process
3	Running Title: S. MONTANA SUPERCRITICAL EXTRACTS
4 5	Jelena Vladić <sup>1</sup> , Zoran Zeković <sup>1</sup> , Stela Jokić <sup>2</sup> , Sandra Svilović <sup>3</sup> , Strahinja Kovačević <sup>1</sup> , Senka Vidović <sup>1*</sup>
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l1	
L2	Abstract
13 14 15 16 17 18 19	Main objective of this work was to investigate the influence of pressure and temperature on supercritical carbon dioxide extraction of <i>Satureja montana</i> in terms of extraction yield and chemical composition. The most dominant compound in all investigated extracts was oxygenated monoterpene-carvacrol. The kinetics of the supercritical carbon dioxide extraction of <i>S. montana</i> as well as the solubility data were investigated by modelling the extraction curves using different empirical models and all models used showed similar deviation from experimental data. Hierarchical cluster analysis was employed in order to reveal possible similarities and dissimilarities among the extracts obtained at different extraction conditions.
22 23	<b>Keywords</b> : Satureja montana, supercritical extraction, carvacrol, mathematical modeling
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