



## The Applications of Supercritical Carbon Dioxide

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### Message from the Guest Editor

Dear Colleagues,

The use of supercritical CO<sub>2</sub> (T<sub>c</sub> = 31 °C, P<sub>c</sub> = 74 bar) as an extraction solvent for natural products is the oldest and most established process on an industrial scale, with notable applications in the food industry.

Supercritical-fluid-based developments include extraction, impregnation, formulation, particle formation, sterilization, cleaning, chemical reactions, energy, and waste treatment, among others. In all circumstances, the supercritical fluid is used as an alternative to traditional organic liquid solvents, and, in many processes, with the use of supercritical CO<sub>2</sub>, it is possible to significantly eliminate or decrease solvent residues, contributing to environmentally-friendly chemical routes and technical innovations to achieve green chemical processes.

Prof. JoseAugusto Paixao Coelho  
*Guest Editor*

