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Supercritical Processing and Applications in Materials

Guest Editor:

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Deadline for manuscript submissions:
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Message from the Guest Editor

Supercritical fluid (SCF)-based techniques are attracting growing interest among researchers and industry as a green alternative to traditional processes, thanks to the properties of SCFs such as liquid-like densities and gas-like transport properties that can be tuned in varying process operative conditions (i.e., pressure and temperature). In particular, carbon dioxide (CO_2) is the most frequently used supercritical fluid thanks to its mild critical temperature (31.1 °C), low critical pressure (73.8 bar), and inertness. Depending on the role played by supercritical CO_2, different processes have been successfully used for the production of various porous materials (like aerogels, membranes, and foams), micro- and nanoparticles, co-precipitates, liposomes, and so on.

The aim of this Special Issue is to collect research and review papers on different supercritical CO_2 applications in the production of advanced materials at enhanced properties, to be used in the pharmaceutical, biomedical, food, and energy fields.

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Message from the Editor-in-Chief

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