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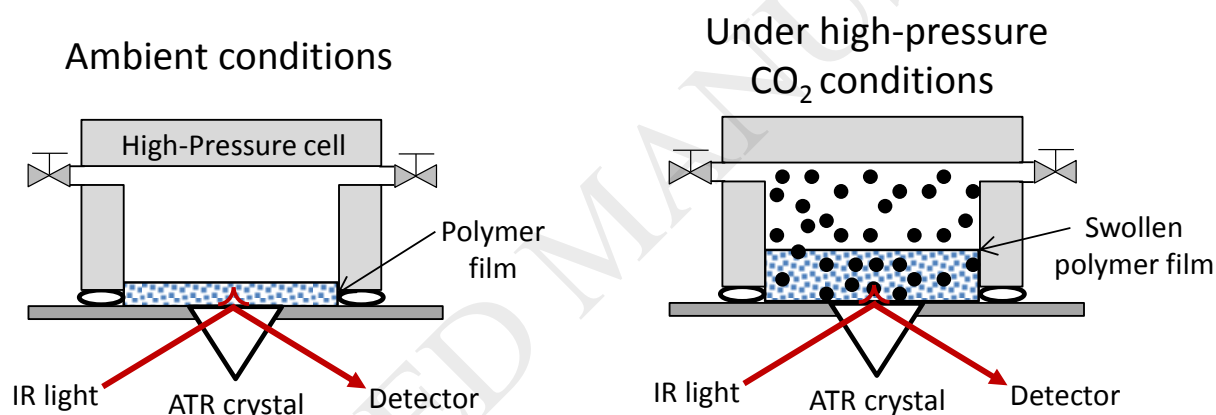
## Current trends and opportunities for the applications of in situ vibrational spectroscopy to investigate the supercritical fluid processing of polymers

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Graphical abstract



### Highlights

- Review in situ FTIR spectroscopy to study polymers under high-pressure CO<sub>2</sub>
- Discuss advances in FTIR spectroscopy for polymer processing and ongoing challenges
- Present current trends, new methods and perspectives on future opportunities
- Summary of recent investigations including polymer swelling and crystallization
- An opinion of the general outlook of this field and potential future breakthroughs

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