

# 1 Abbreviations

In modern chemical analysis, techniques like NMR, FTIR, and GC-MS are essential for identifying compounds, while methods such as HPLC and ICP-OES provide high-precision quantification of analytes across a wide range of matrices. Researchers often rely on computational tools like DFT and Molecular Dynamics to model reaction pathways and molecular behavior, supported by data from X-ray Diffraction for crystalline structure determination.

## List of Acronyms

**DFT** Density Functional Theory. 1

**FTIR** Fourier Transform Infrared Spectroscopy. 1

**GC-MS** Gas Chromatography–Mass Spectrometry. 1

**HPLC** High-Performance Liquid Chromatography. 1

**ICP-OES** Inductively Coupled Plasma–Optical Emission Spectroscopy. 1

**NMR** Nuclear Magnetic Resonance. 1