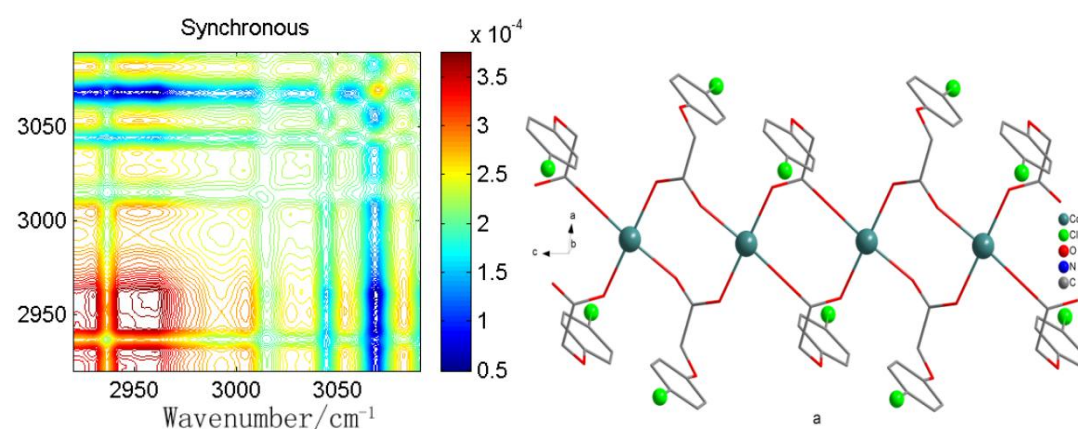


## Graphical abstract



The 2936 cm<sup>-1</sup> peaks of flexible group (–CH<sub>2</sub>–) in p-chlorophenoxyacetic acid are sensitive to thermal response under thermal perturbation.