**Electronic Supplementary Information (ESI)** for the article “Interplay of weak noncovalent interactions in alkoxybenzylidene derivatives of benzohydrazide and acetohydrazide: A combined experimental and theoretical investigation and lipoxygenase inhibition (LOX) studies” by Muhammad Naeem Ahmed¹*, Muneeba Arif³, Hina Andleeb², Syed Wadood Ali Shah⁴, Ifzan Arshad², Muhammad Nawaz Tahir⁵, Mariana Rocha⁶, Diego M. Gil⁶+,,*

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Figure S1. IR spectra of compounds 1-3 in solid state.

Figure S2. Electronic spectra of compounds 1-3 in ethanol as solvent.
**Figure S3.** Optimized molecular structure of compound 1 calculated at B3LYP/6-311G(d,p) level of theory.

![Molecular structure of compound 1](image1)

**Figure S4.** Optimized molecular structure of compound 2 calculated at B3LYP/6-311G(d,p) level of theory.

![Molecular structure of compound 2](image2)