Supporting Information (SI)

An elegant synthesis of chitosan grafted hydrotalcite nano-bio composite material and its effective catalysis for solvent-free synthesis of jasminaldehyde

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After completion of the reaction the product mixture was allowed to attain room temperature and the solid catalyst was separated. After catalyst separation from these mixtures, aliquots were taken and diluted with methanol. These diluted mixtures were then injected into the GC. Selected representative chromatograms with corresponding employed reaction conditions are shown below in figures S1 to S5. The first peak at 0.56 min is for the methanol solvent. For more clarity of the chromatograms (lower), each chromatogram is enlarged (upper) for retention time between 2 to 14 min for each figure as shown below.

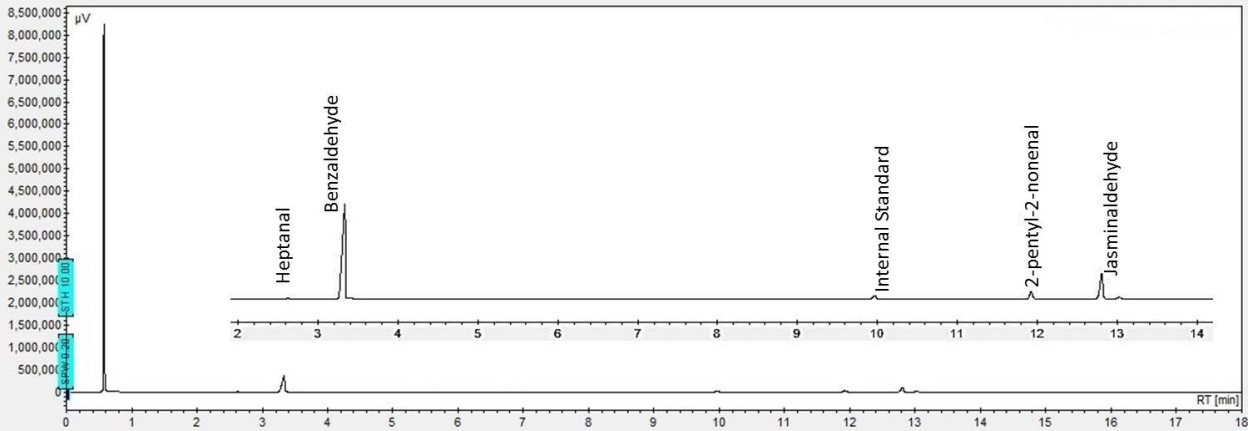

Fig. S1. Reaction conditions: catalyst = 100 mg, heptanal = 7.9 mmol, benzaldehyde = 39.5 mmol, temperature = 125 °C and 700 rpm

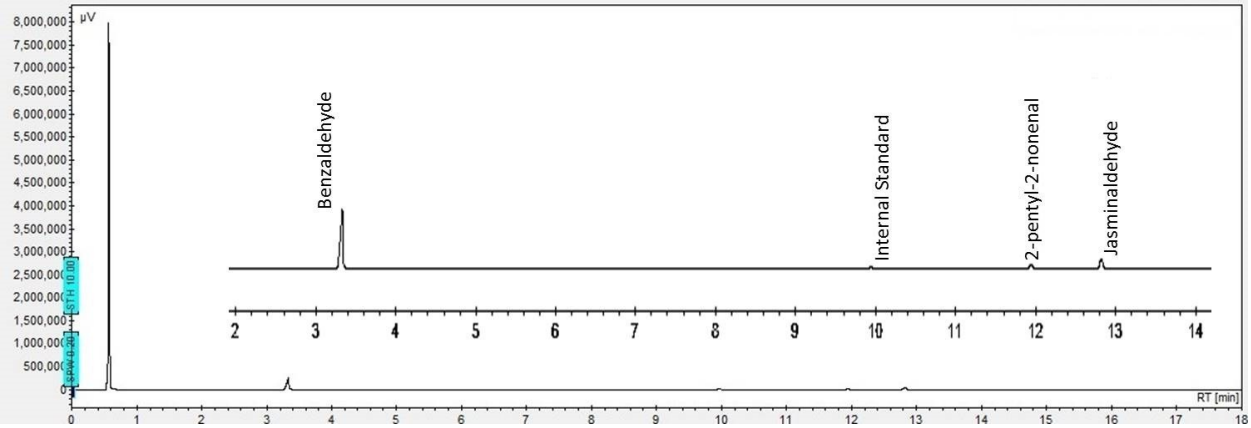

Fig. S2. Reaction conditions: catalyst = 150 mg, heptanal = 7.9 mmol, benzaldehyde = 39.5 mmol, temperature = 125 °C and 700 rpm

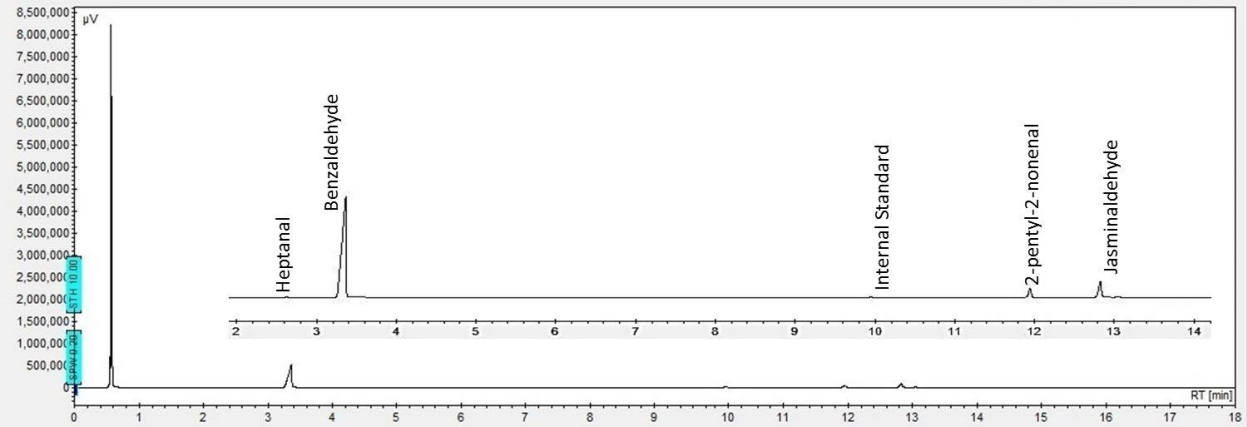

Fig. S3. Reaction conditions: catalyst = 100 mg, heptanal = 7.9 mmol, benzaldehyde = 39.5 mmol, temperature = 100 °C and 700 rpm

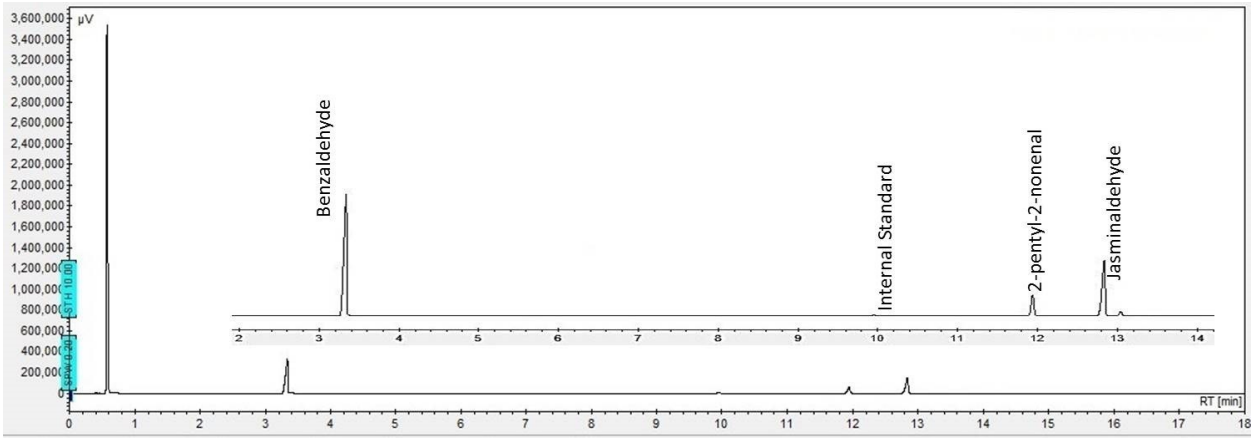

Fig. S4. Reaction conditions: catalyst = 100 mg, heptanal = 7.9 mmol, benzaldehyde = 31.6 mmol, temperature = 125 °C and 700 rpm

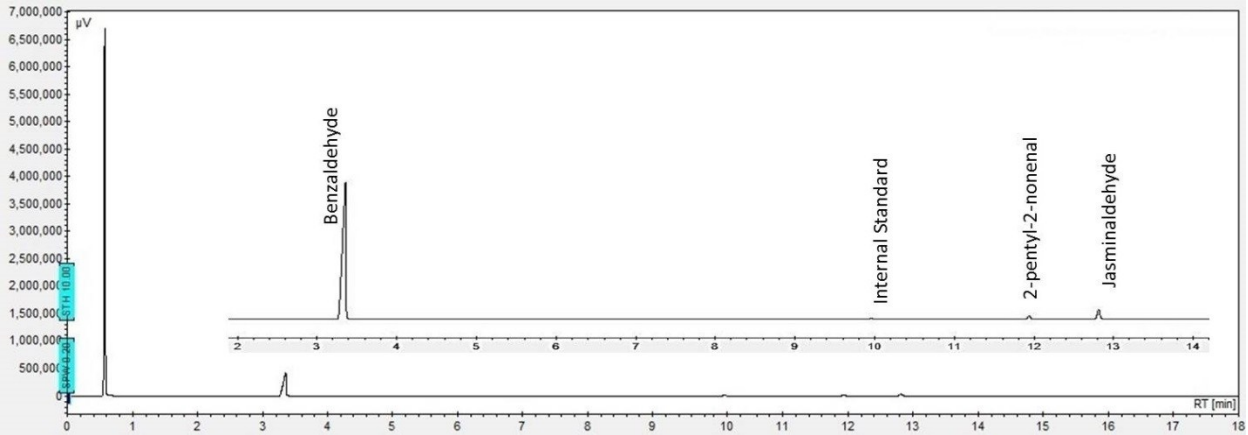

Fig. S5. Reaction conditions: catalyst = 100 mg, heptanal = 7.9 mmol, benzaldehyde = 55.3 mmol, temperature = 125 °C and 700 rpm