

**Polymer-free nanofibers from vanillin/cyclodextrin inclusion
complexes: high thermal stability, enhanced solubility and
antioxidant property**

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Table S1. DSC results including enthalpy changes (ΔH (J/g)) and peak temperature values ($^{\circ}\text{C}$) during the dehydration process of water. $^1\text{H-NMR}$ calculations indicating the vanillin amount in CD-IC NF in terms of molar ratio (vanillin:CD)/% (w/w) comparatively with their initial values.

Samples	DSC Results		$^1\text{H-NMR}$ Results	
	ΔH (J/g) ^a	Peak temperature ($^{\circ}\text{C}$)	Initial-vanillin (vanillin:CD;molar ratio - %;w/w ^b)	Measured-vanillin (vanillin:CD;molar ratio - %;w/w ^b)
vanillin/HP β CD-IC-water-NF	161 - 327*	98 - 93*	0.94:1 - 9.8	0.75:1 - 7.64
vanillin/HP β CD-IC-DMF-NF	120 - 177*	96 - 95*	0.94:1 - 9.8	0.63:1 - 6.49
vanillin/HP β CD-IC-DMAc-NF	122 - 179*	96 - 89*	0.94:1 - 9.8	0.55:1 - 5.71
vanillin/HP γ CD-IC-water-NF	157 - 247*	109 - 92*	0.97:1 - 8.9	0.77:1 - 6.90
vanillin/HP γ CD-IC-DMF-NF	142 - 322*	111 - 93*	0.96:1 - 8.8	0.72:1 - 6.48
vanillin/HP γ CD-IC-DMAc-BNF	192 - 256*	114 - 107*	0.96:1 - 8.8	0.40:1 - 3.71
vanillin/M β CD-IC-water-NF	74 - 90*	102 - 101*	1.14:1 - 12.3	1.00:1 - 10.4
vanillin/M β CD-IC-DMF-NF	56 - 101*	96 - 89*	1.14:1 - 12.3	1.00:1 - 10.4
vanillin/M β CD-IC-DMAc-NF	42 - 189*	100 - 96*	1.14:1 - 12.3	0.93:1 - 9.74

^a Calculated in the range of 30-150 $^{\circ}\text{C}$.

^b For the amount of vanillin calculated in terms of %, w/w is respect to total sample amount.

* Marked ΔH values belong to pure HP β CD, HP γ CD and M β CD NF obtained from previous report [29].

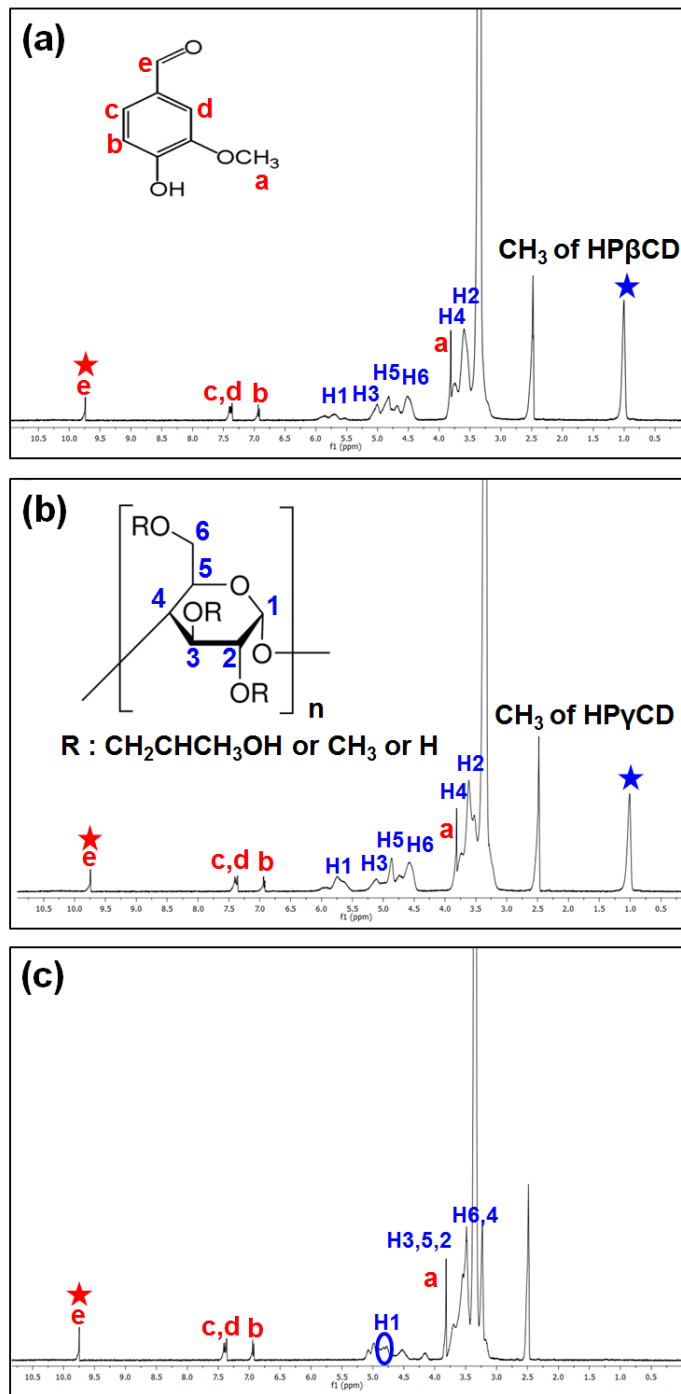


Figure S1. Representative $^1\text{H-NMR}$ spectra of (a) vanillin/HP β CD-IC NF, (b) vanillin/HP γ CD-IC NF and (c) vanillin/M β CD-IC NF obtained in water and dissolved in *d*₆-DMSO (red and blue stars are assigned for the calculated peak of vanillin and CD, respectively. The protons taken into account for M β CD were shown in blue circle).

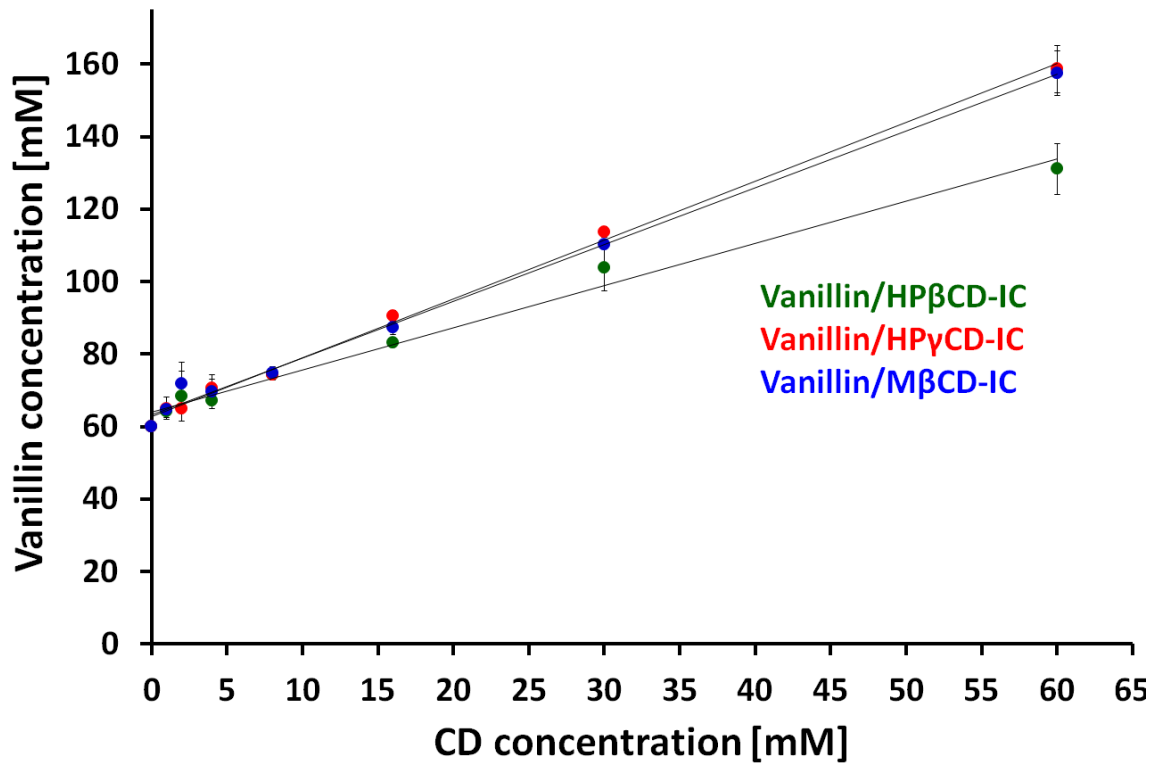


Figure S2. Phase solubility diagram of vanillin/CD systems in water