

Supporting Information

Electronic Structure, Unusual Magnetic Property and Large Enhancement in SERS of 1D Gallium Nanoribbons Achieved by Doping Calix[6]arene

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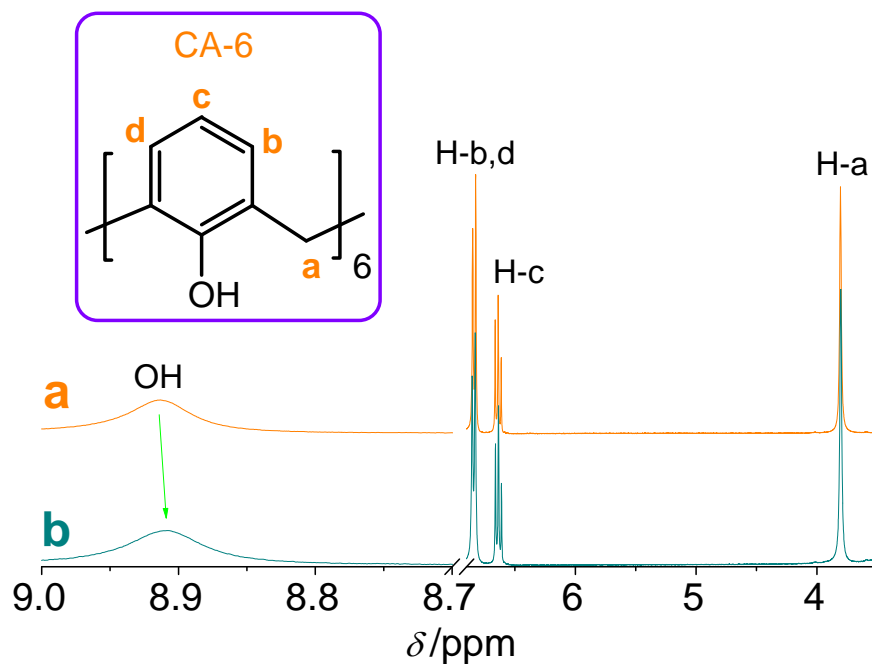


Fig. S1 ¹H NMR spectra of CA-6 (a) and Ga-a (b) in DMSO at 300 K.

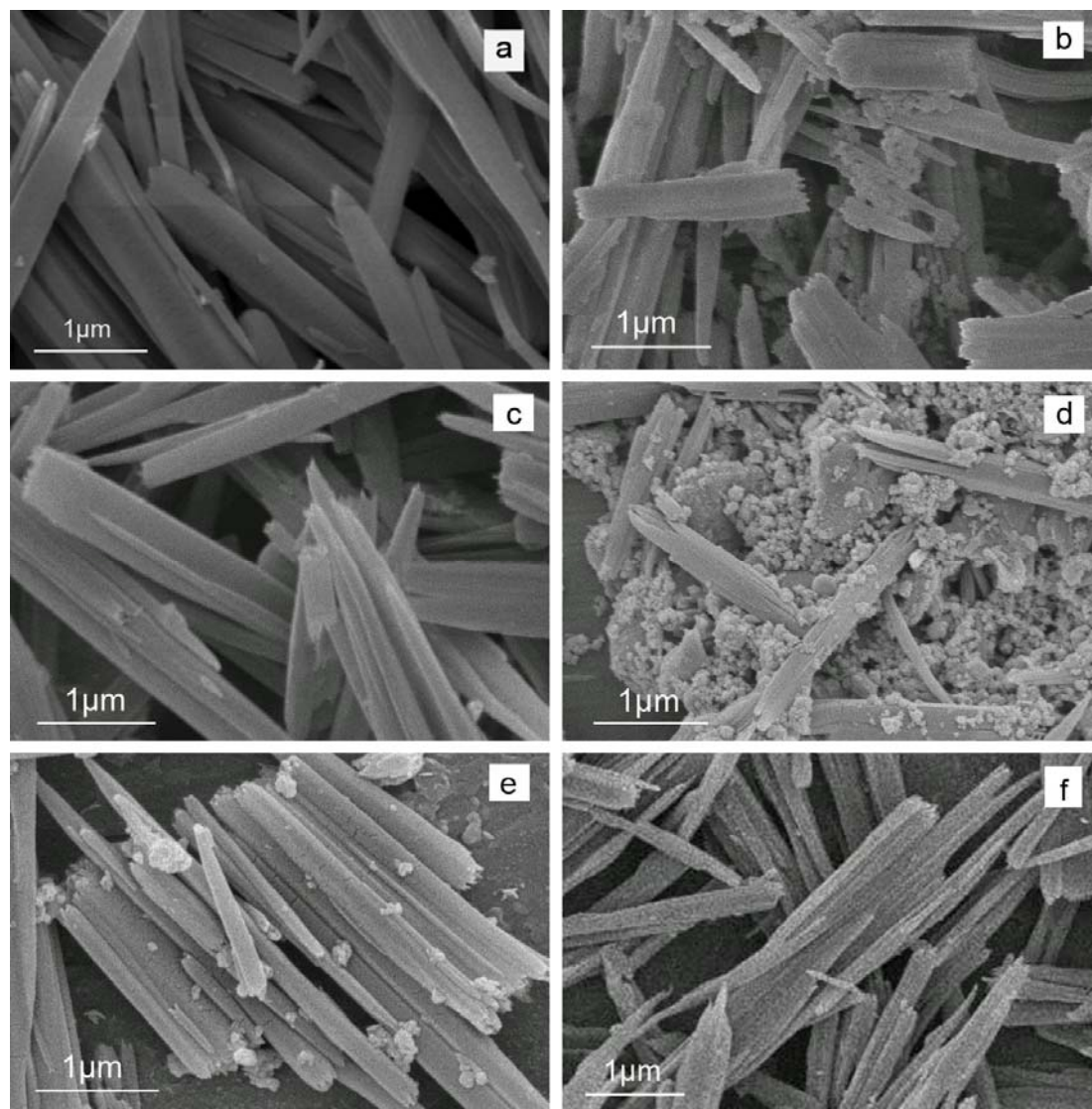


Fig. S2 FE-SEM images of Ga-a₁ (a), Ga-a₂ (b), Ga-a₃ (c), Ga-a₄ (d), Ga-a₅ (e) and Ga-a₆ (f).

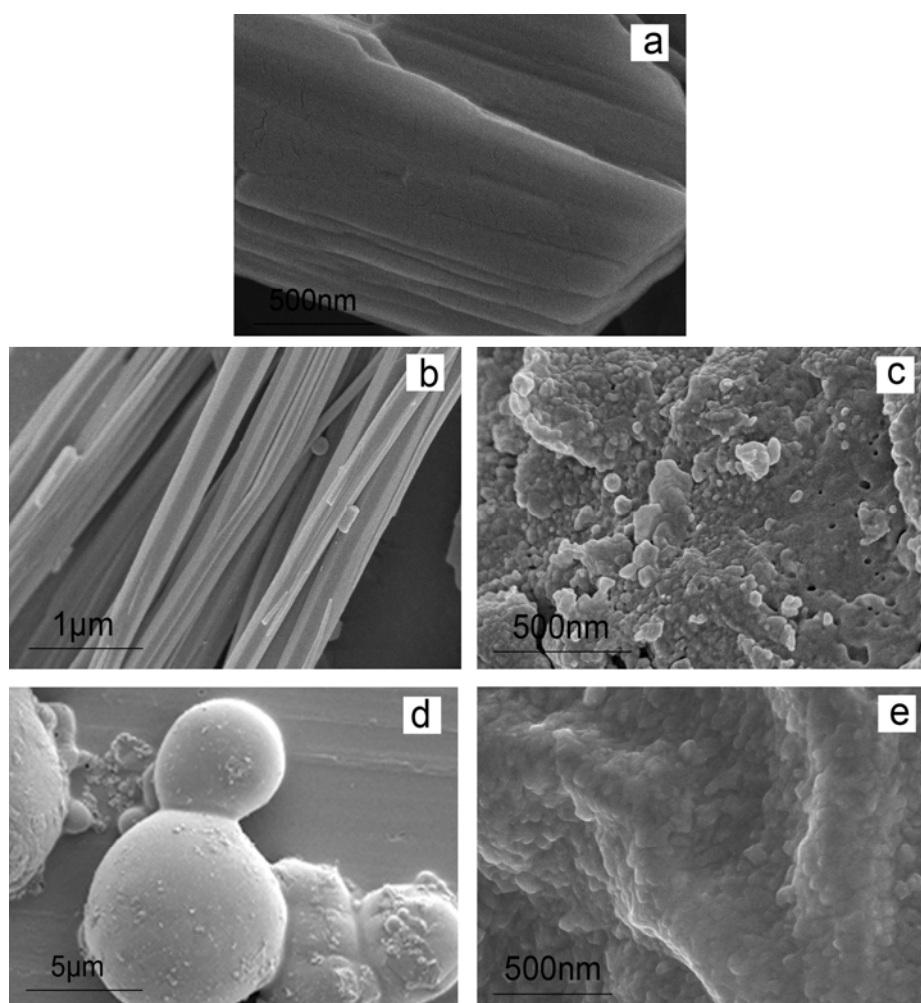


Fig. S3 FE-SEM images of CA-6 (a), Ga-a (b), Ga-b (c), Ga-c (d) and Ga-d (e).

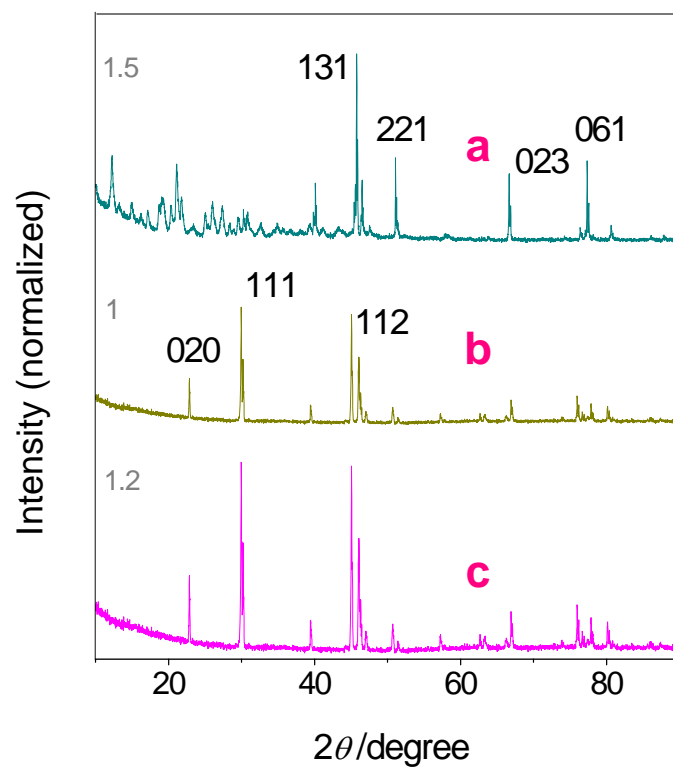


Fig. S4 XRD patterns of Ga-**b** (a), Ga-**c** (b) and Ga-**d** (c). Relative signal intensity was normalized to the intensity of the peak at 30.2° in Curve b. Note that the peaks below 30.0° represent the diffraction peaks of hosts, except the plane (020) at 23.2° of Ga.

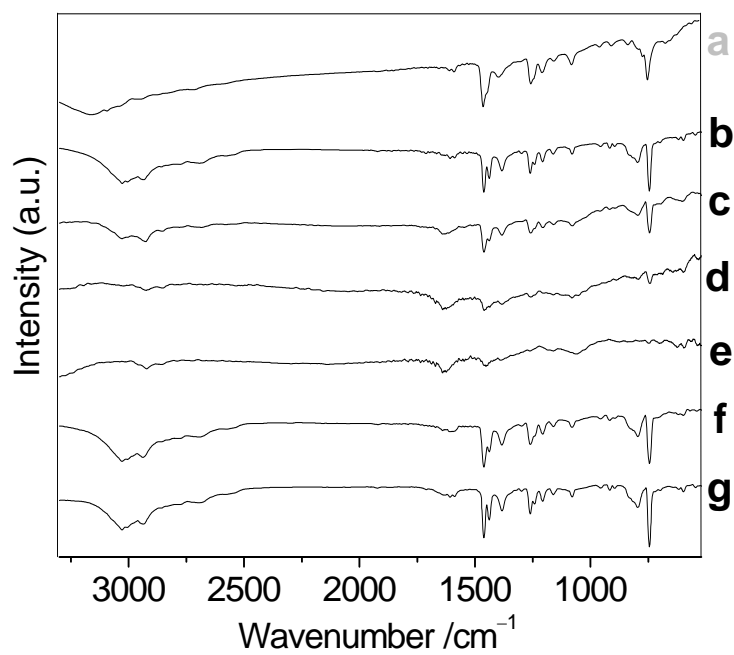


Fig. S5 FTIR spectra of CA-6 (a), Ga-a₁ (b), Ga-a₂ (c), Ga-a₃ (d), Ga-a₄ (e), Ga-a₅ (f) and Ga-a₆ (g).

TABLE S1: Binding energies (eV) of core levels of Ga-**0**, Ga-**a** and Ga-**b** series materials

Samples	Binding energy (eV)		
	Ga 3d	Ga 2p _{3/2}	Ga 2p _{1/2}
Ga- 0	18.7	1116.7	1143.5
Ga- a	20.2	1121.1	1148.2
Ga- b	19.2	1120.6	1147.8
Ga- c	18.6	1118.5	1145.5
Ga- d	17.6	1118.6	1145.0

TABLE S2: Binding energies (eV) of core levels of Ga-**a**₁ series materials

Samples	Binding energy (eV)		
	Ga 3d	Ga 2p _{3/2}	Ga 2p _{1/2}
Ga- a ₁	19.9	1119.9	1147.2
Ga- a ₂	19.4	1119.8	1146.8
Ga- a ₃	19.0	1119.6	1146.6
Ga- a ₄	18.3	1118.2	1145.2
Ga- a ₅	19.0	1119.7	1147.1
Ga- a ₆	19.3	1119.4	1144.1

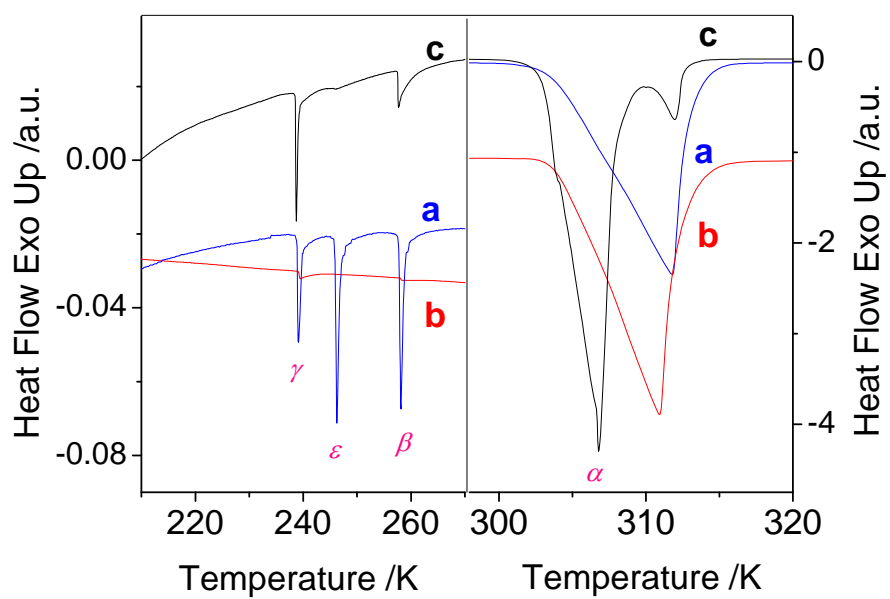


Fig. S6 Continuous DSC heating curves of Ga-**b** (a), Ga-**c** (b) and Ga-**d** (c) in the second cycle.

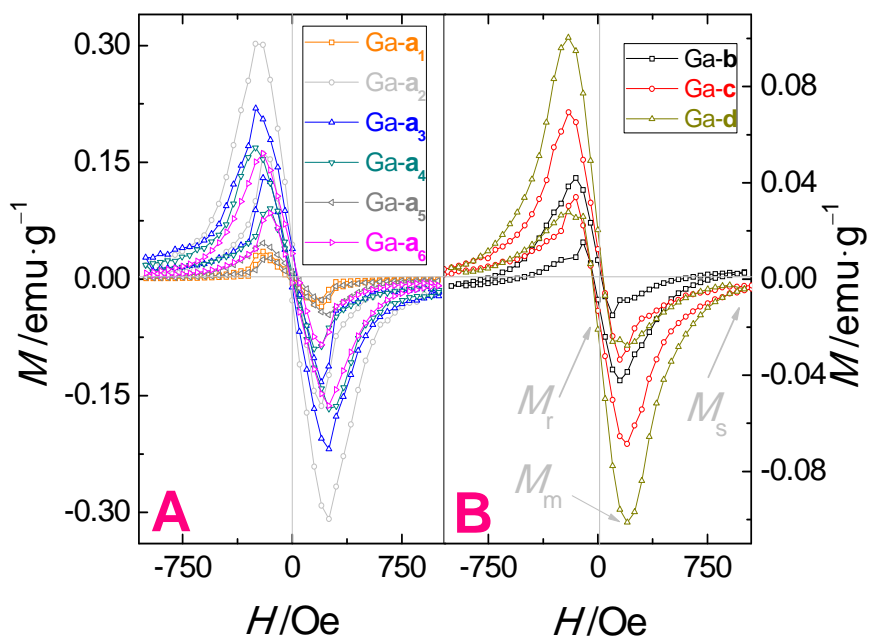


Fig. S7 Field dependence of M of (A) Ga-a₁ to a₆ and (B) Ga-b to d at 4.5 K.