**Electronic Supplementary Information** 

## Highlyorderedsandwich-type(phthalocyaninato)(porphyrinato)europiumdouble-deckersnanotubes and room temperatureNO2 sensitive properties

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Fig. S1 MALDI-TOF mass spectrum of compound 2.



**Fig. S2** The nanotubes fabricated from **2** using AAO as template observed by SEM after ultrasound (A); nanotubes prepared from **2** indicate the open ends of these nanotubes (B).



**Fig. S3** IR spectra of compound **1** (A) and **2** (B) (black line) and its nanotubes (red line) fabricated from **1-2** in the region of 450-2800 cm<sup>-1</sup> with 2 cm<sup>-1</sup> resolution.



Fig. S4 EDS images of nanotubes fabricated from compound 1 nanotubes (A) and 2 nanotubes (B).



**Fig. S5** Real-time response characteristics of the drop-cast films of compound 1 (A) and compound 2 (B).



Fig. S6 Dynamic responses of the nanotubes of sensors to 100 ppm  $NO_2$  at ambient temperature: (A) compound 1 nanotubes; (B) compound 2 nanotubes.

 Table S1 Electronic absorption data for compounds 1-2 in chloroform solutions and corresponding nanotubes dispersed in distilled water.

Compound	in CHCl <sub>3</sub> /nm	nanotubes/nm
1	331, 411, 480, 605, 692	338, 417, 484, 582, 645
2	335, 413, 482, 608, 683	386, 463, 499, 625, 690