Supporting Information for:

A Free-standing Molecularly Imprinted Photonic Hydrogels Based on β-Cyclodextrin
for Visual Detection of L-Tryptophan

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Fig. S1 exhibited the typical SEM photos of the adopted colloidal-crystal template
and the resultant hydrogel inverse opal film, as well as the photograph of MIPHs. Fig.
S2 presented FT-IR spectra of β-CD and MAH-β-CD. Fig S3 showed the Bragg
diffraction spectra of PAM-MIPHs when soaked into pure buffer solution and 10^{-12} M
L-Trp buffer solutions. Fig. S4 showed the imprinting effect of CD-MIPHs with
different amounts of MAH-β-CD, AM or BIS. In analogy to the definition of
imprinting factor of MIPs, the photonic imprinting factor (PIF) is calculated from the
Bragg diffraction wavelength shift of MIPHs and NIPHs (PIF=Δλ_{MIPHs}/Δλ_{NIPHs}).
Fig. S1. SEM images of (a) PS colloidal crystals, (b) inverse opals of MIPHs, (c) inverse opals of PAM-NIPHs and (d) photograph of MIPHs.

Fig. S2 FT-IR spectra of (a) β-CD and (b) MAH-β-CD.
Fig. S3 Bragg diffraction spectra of PAM-MIPHs upon exposure to pure buffer solution and $10^{-12}$ M L-Trp buffer solutions.

Fig. S4 Imprinting effect of MIPHs with different amounts of (a) MAH-β-CD, (b) AM and (c) BIS in L-Trp ($10^{-5}$ mol.L$^{-1}$) buffer solution.