Supporting Information for New Journal of Chemistry

Synthesis and fluorescence property of columnar porous silicon: the influence of Cu-coating on photoluminescence behaviour from hydrofluoric-acid-treated aged columnar porous silicon

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\textbf{Figure S1}. Photoluminescence spectra of as-prepared porous silicon at different periods after preparation (The sample was kept under ambient air conditions).
Figure S2. Narrow X-ray photospectra of Si 2p of freshly prepared porous silicon sample (a), sample kept under ambient conditions for one week (b), and one month (c).

Figure S3. Selected area electron diffraction pattern of Cu-coated porous silicon (The diffraction area is the same as the area shown in Figure 3b).
Figure S4. (a) TEM lateral image of the Cu-PSi, the sputtering time of Cu was 1 min. (b) Enlarged lateral image of the Cu-PSi.