Supplementary Materials

Vapour-Deposited Reactive Coating with Chemically and Topographically Erasable Properties

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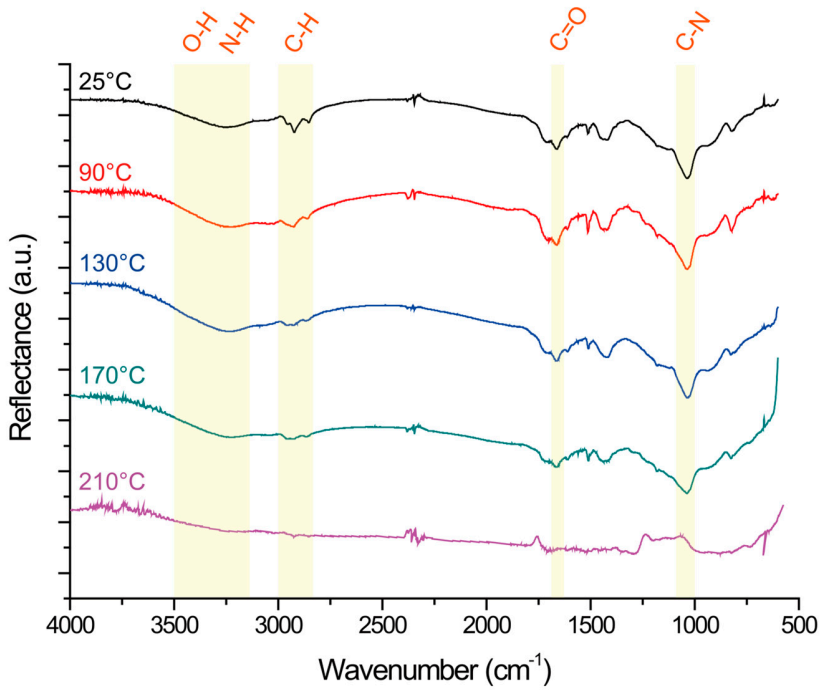

Figure S1. FT-IR spectra showing the thermal stability of the erasable coating at 25 °C, 90 °C, 130 °C, 170 °C and 210 °C. The film remained thermally stable from 25 °C to 170 °C based on negligible changes in the position and intensity of the characteristic bands of *C=O*, *C−N*, *N−H*, and *O−H*. However, the decreased intensities for the *C=O*, *C−N*, *N−H*, and *O−H* peaks suggested a limitation of the thermal stability at 210 °C.

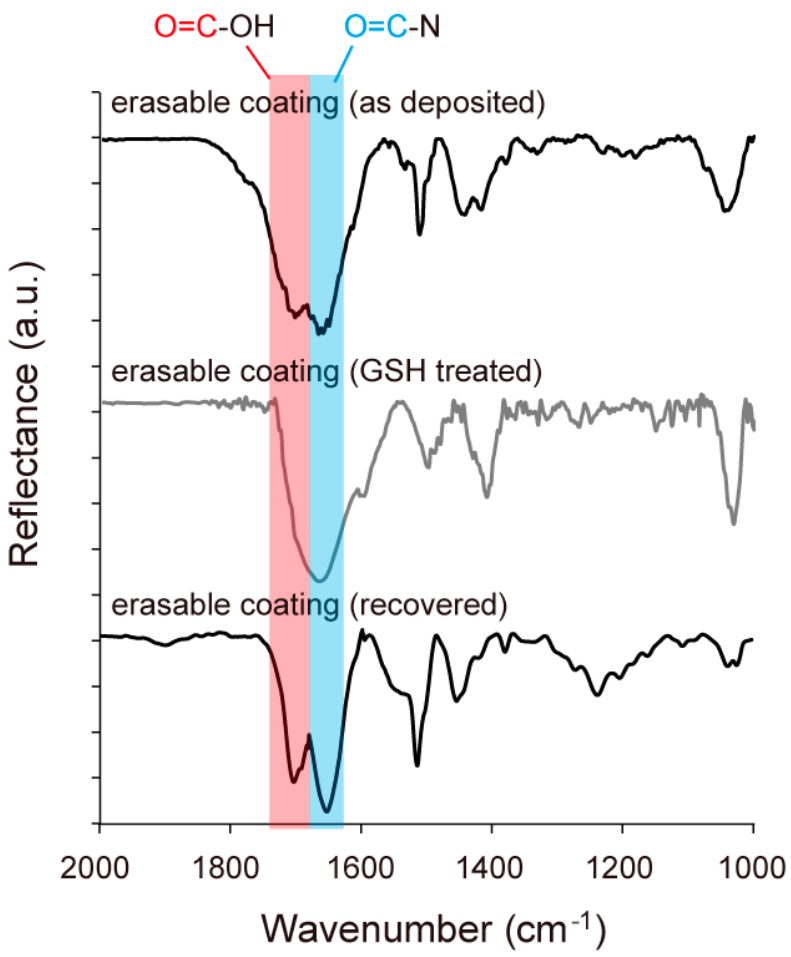

Figure S2. Reaction efficiency analysis of the erasable coating. FT-IR spectra were recorded for the coating before (as deposited) and after modifications including GSH treatment and recovering the coating with 3-mercaptopropionic acid. A selected range of scans from 1000 to 2000 cm^{-1} was used during the FT-IR acquisition. Experiments were performed on the same sample surface, and a high efficiency of 88.5 ± 3.7% was discovered based on comparing the integrated peak areas of *O=C-OH* (with respect to unchanged areas for *O=C-N*).