

Supporting Information for

Effects of Hydrogen and Hydrothermal Pretreatments on Silica-supported Copper Catalyst for CO Oxidation: Copper Hydroxy Active Species

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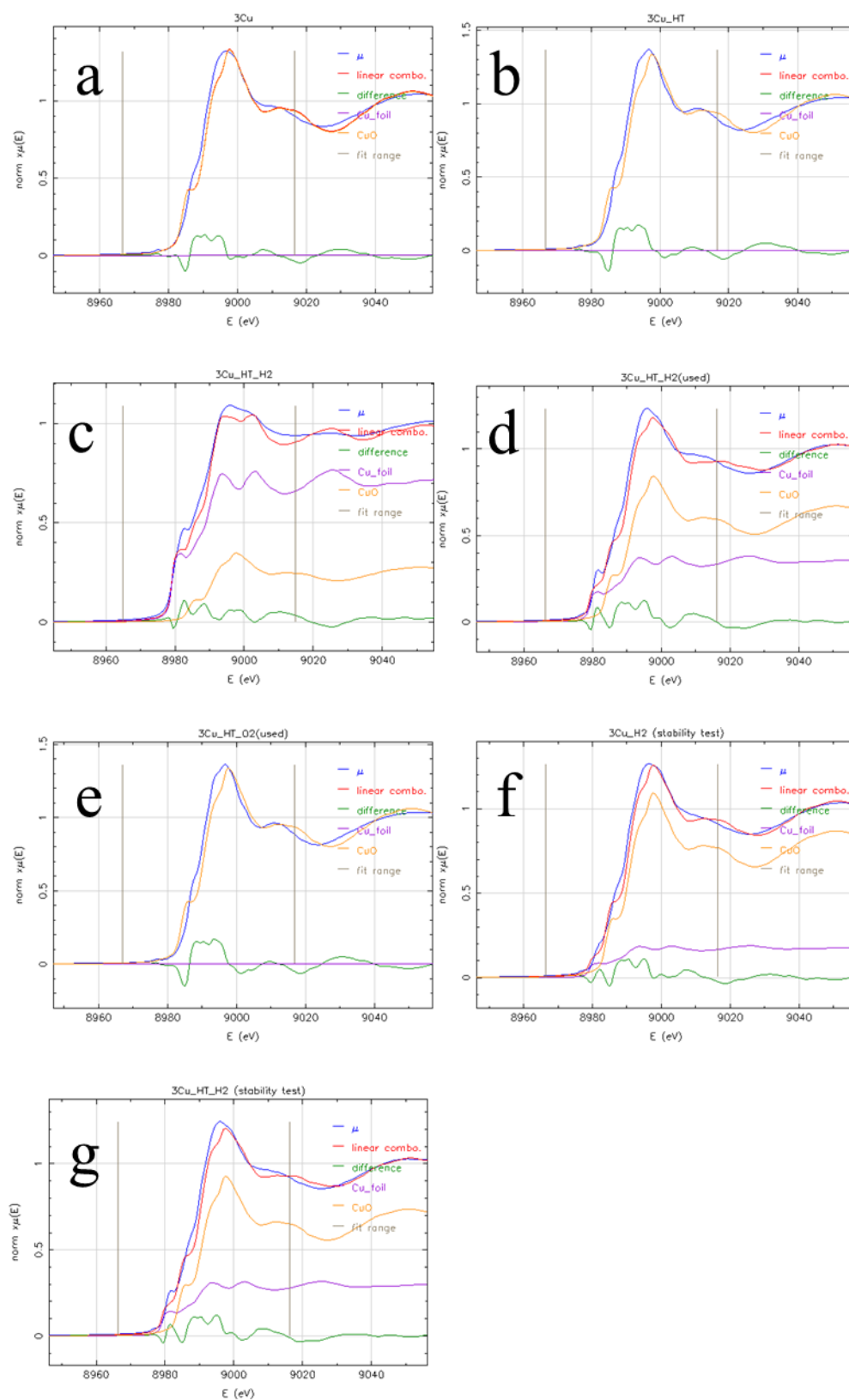


Figure S1 Determination of the oxidation state of Cu by the linear combination fit with the help of various references (Cu foil for Cu⁰ and CuO for Cu²⁺) according to

the XANES profiles.

Table S1 the Molar Proportion of Cu⁰ and Cu²⁺, the Oxidation State of Cu (δ)

sample	Cu ⁰ (%) ^a	Cu ²⁺ (%) ^b	δ
3Cu	0.5	99.5	2
3Cu_HT	0	100	2
3Cu_HT_O₂(used)	0	100	2
3Cu_HT_H₂(used)	37.9	62.1	1.2
3Cu_HT_H₂	74.0	26.0	0.5
3Cu_H₂ ^c	18.3	81.7	1.6
3Cu_HT_H₂ ^c	30.8	69.2	1.4

^a From Cu foil. ^b From CuO. ^c After stability test.