

# Copper-containing Mixed Metal Oxides (Al, Fe, Mn) for Application in Three-way Catalysis

Tim Van Everbroeck <sup>1</sup>, Radu-George Ciocarlan <sup>1</sup>, Wouter Van Hoey <sup>1</sup>, Myrjam Mertens <sup>2</sup> and Pegie Cool <sup>1,\*</sup>

<sup>1</sup> Laboratory of Adsorption and Catalysis, University of Antwerp, Department of chemistry, Universiteitsplein 1, 2610 Wilrijk, Belgium; [Tim.Vaneverbroeck@uantwerpen.be](mailto:Tim.Vaneverbroeck@uantwerpen.be), [Radu-George.Ciocarlan@uantwerpen.be](mailto:Radu-George.Ciocarlan@uantwerpen.be), [Wouter.VanHoey@uantwerpen.be](mailto:Wouter.VanHoey@uantwerpen.be), [Pegie.Cool@uantwerpen.be](mailto:Pegie.Cool@uantwerpen.be)

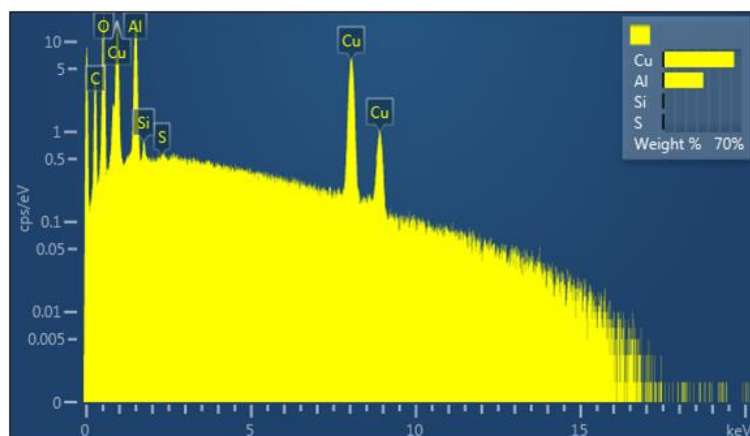
<sup>2</sup> VITO Flemish Institute for Technological Research, Boeretang 200, B-2400, Belgium; [myrjam.mertens@vito.be](mailto:myrjam.mertens@vito.be)

\* Correspondence: [Correspondence: Pegie.Cool@uantwerpen.be](mailto:Pegie.Cool@uantwerpen.be) ; Tel.:

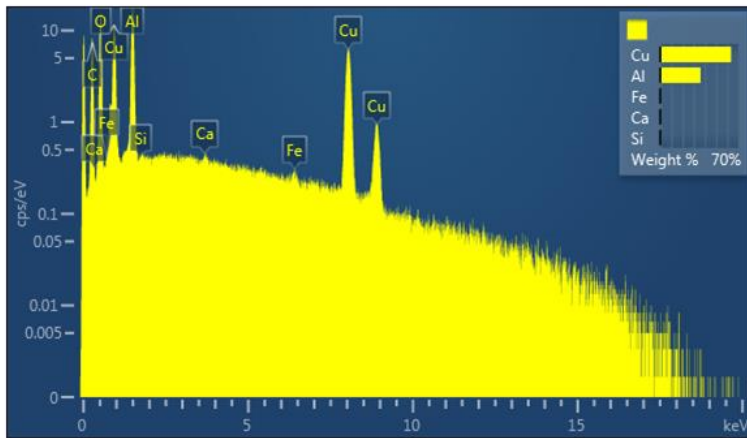
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	wt%				X:Cu
	Cu	Al	Fe	Mn	
CuAl 600	63.9	36.1			1.3
CuAl 1000	63.7	36.3			1.3
CuFe 600	44.4		55.6		1.4
CuFe 1000	34.7		65.3		2.1
CuMn 600	54.5			45.5	1.0
CuMn 1000	58.5			41.5	0.8
CuMn2 600	36.8			63.2	2.0
CuMn2 1000	33.6			66.4	2.3

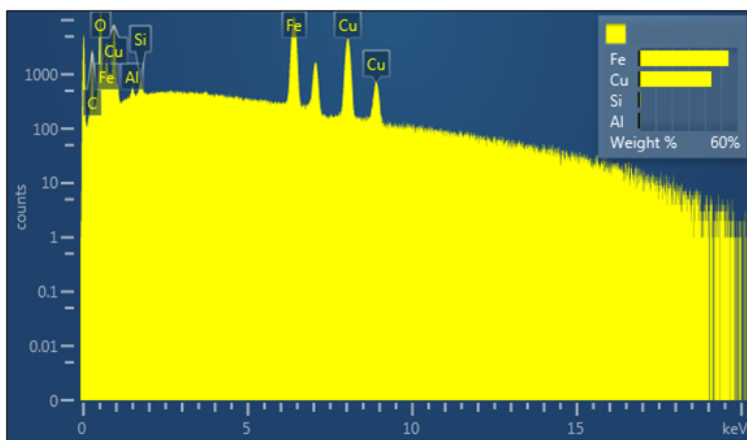
Supplementary table 1: wt% and ratio of the second element X (Al, Fe, Mn) to Cu, as determined by SEM-EDX



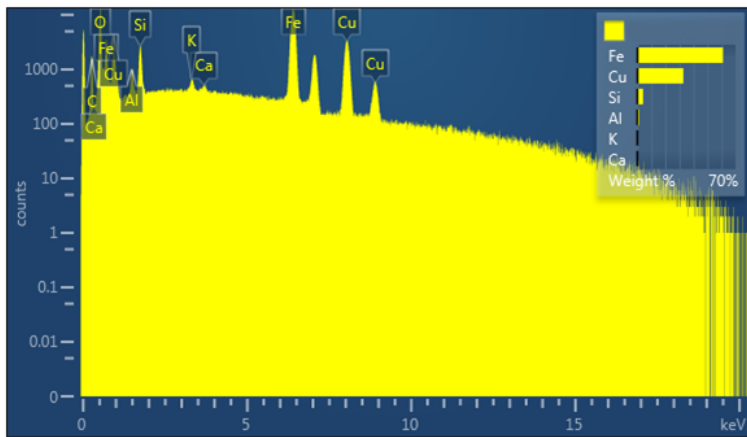
Supplementary figure 1: SEM-EDX spectrum for CuAl 600



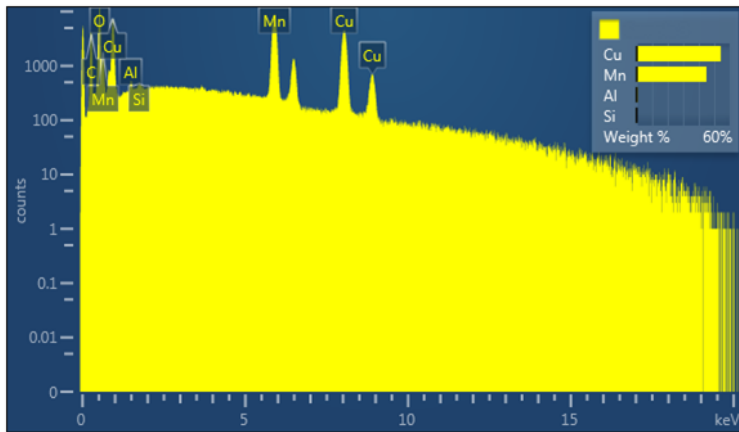
Supplementary figure 2: SEM-EDX spectrum for CuAl 1000



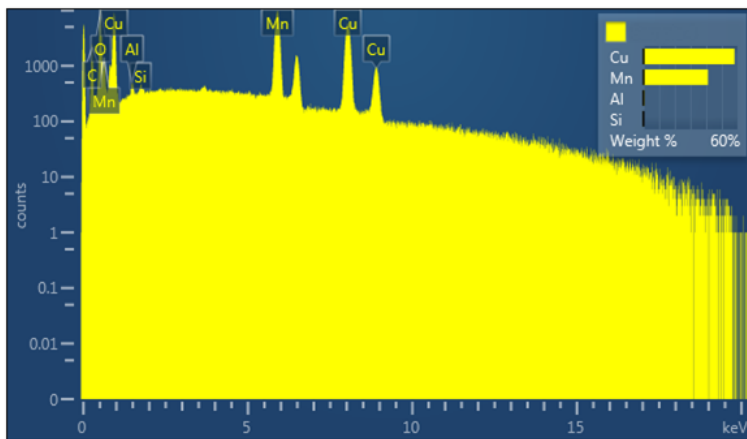
Supplementary figure 3: SEM-EDX spectrum for CuFe 600



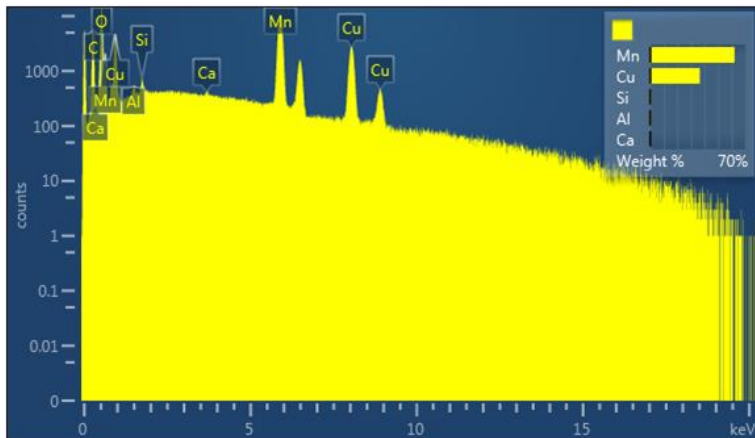
Supplementary figure 4: SEM-EDX spectrum for CuAl 1000



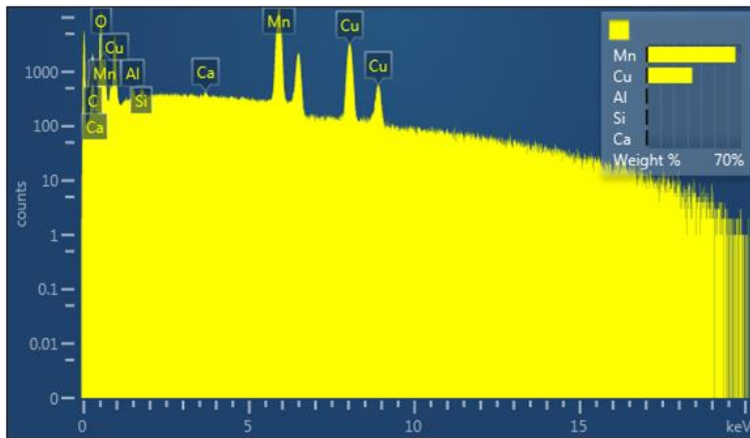
Supplementary figure 5: SEM-EDX spectrum for CuMn 600



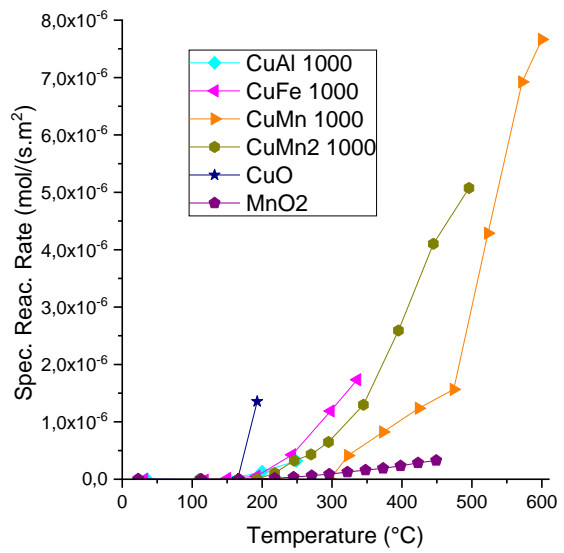
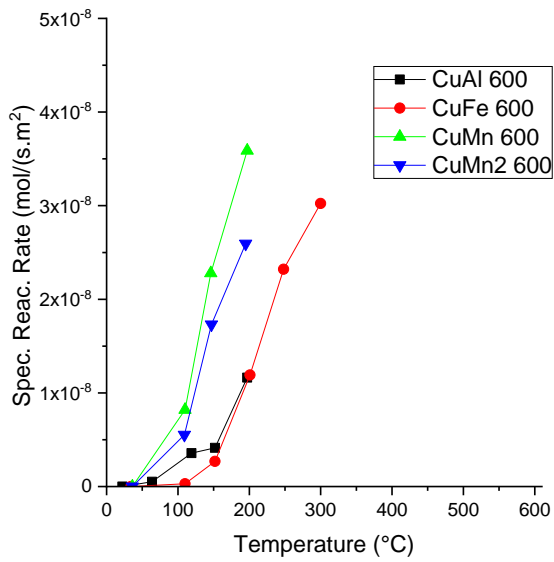
Supplementary figure 6: SEM-EDX spectrum for CuMn 1000



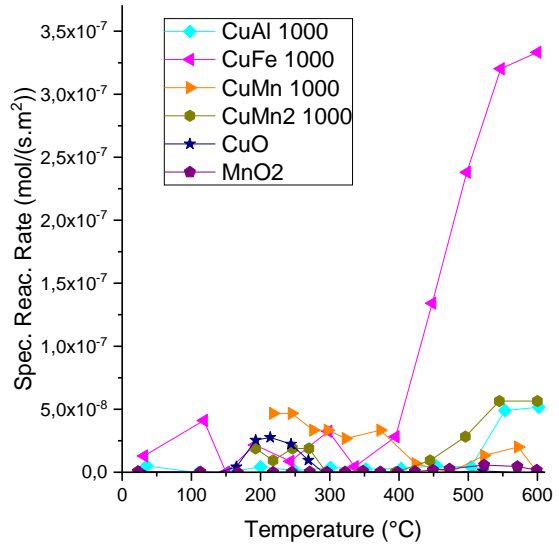
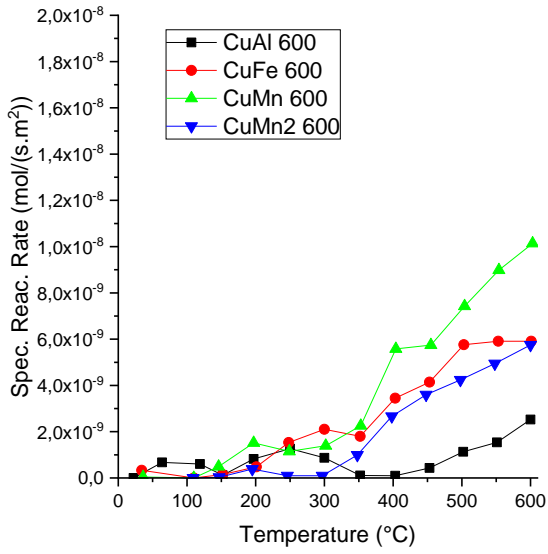
Supplementary figure 7: SEM-EDX spectrum for CuMn<sub>2</sub> 600



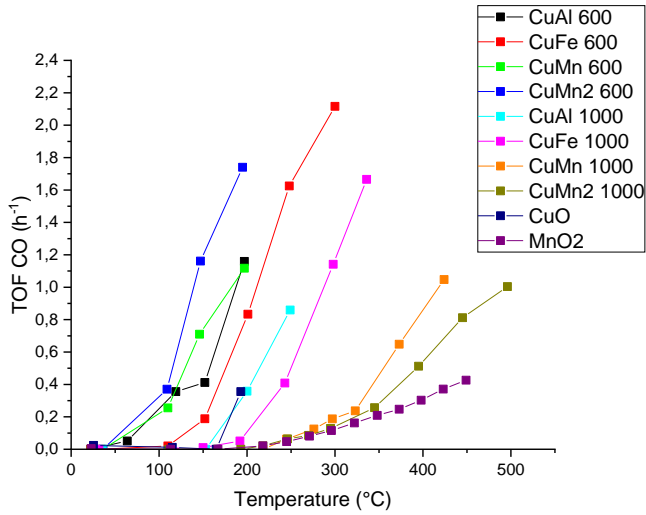
Supplementary figure 8: SEM-EDX spectrum for CuMn2 1000



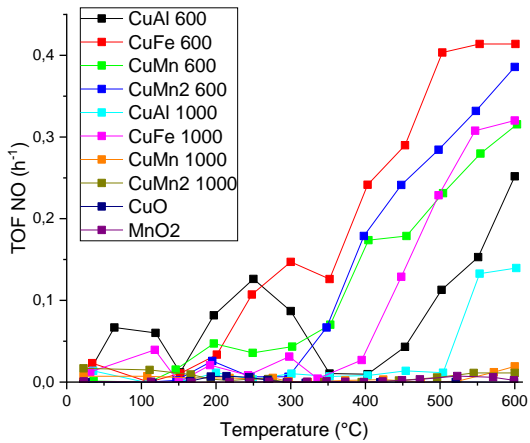
Supplementary figure 9: Specific reaction rates for CO



Supplementary figure 10: Specific reaction rates for NO



Supplementary figure 11: TOF for CO



Supplementary figure 12: TOF for NO