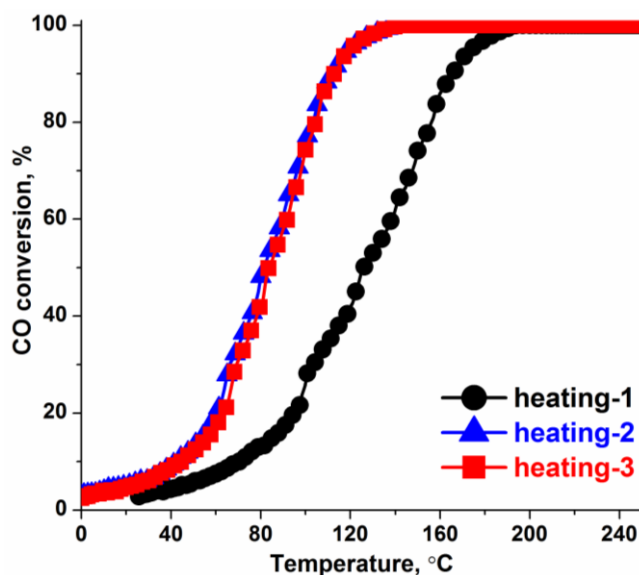


ДОПОЛНИТЕЛЬНЫЕ МАТЕРИАЛЫ К СТАТЬЕ

МЕДЬМАРГАНЦЕВЫЙ КАТАЛИЗАТОР ДЛЯ НИЗКОТЕМПЕРАТУРНОГО
ОКИСЛЕНИЯ СО НА ОСНОВЕ СМЕШАННОГО ОКСИДА CuMnO_2 Н.А. Соковиков^{1,2}, Д.А. Свинцицкий¹, В.М. Метальникова^{1,2},
С.В. Черепанова¹, А.И. Боронин¹¹Институт катализа им. Г.К. Борескова СО РАН, Новосибирск, Россия
E-mail: sad@catalysis.ru²Новосибирский государственный университет, Новосибирск, Россия**Table S1. Structural characteristics (cell parameters (*a*, *c*), volume of lattice cell (*V*), crystallite size (*D*)) of additional to CuMnO_2 phases in the composition of studied copper-manganese catalysts**

Additional to CuMnO ₂ phases in the composition of studied copper-manganese catalysts					
Sample	Mn ₃ O ₄	CuO	Cu ₂ O	Cu _y Mn _{3-y} O ₄	
CuMn-1	T=80°C	-	D=23 nm	-	
	T=120°C	D=22 nm	-	-	
	T=180°C	D=23 nm	D=55 nm	-	
CuMn-2	pH=9.6	a=5.761(1) Å, c=9.429(2) Å V=313.0(1) Å ³ , D=11 nm	D=14 nm	D=17 nm	-
	pH=11.8	a=5.760(2) Å, c=9.439(5) Å V=313.1(1) Å ³ , D=17 nm	D=17 nm	D=33 nm	-
	pH=12.4	a=5.770(4) Å, c=9.47(1) Å V=315.2(1) Å ³ , D=11 nm	-	-	-
CuMn-3	CO+O ₂ , 350°C	-	-	a=8.282(1)Å, D=8 nm	

**Fig.S1 Catalytic curves of CO conversion measured during the 1st, 2nd, and 3rd heating of CuMn-1 (T=80°C) sample in the reaction mixture of 0.24%CO/1%O₂/Ar**

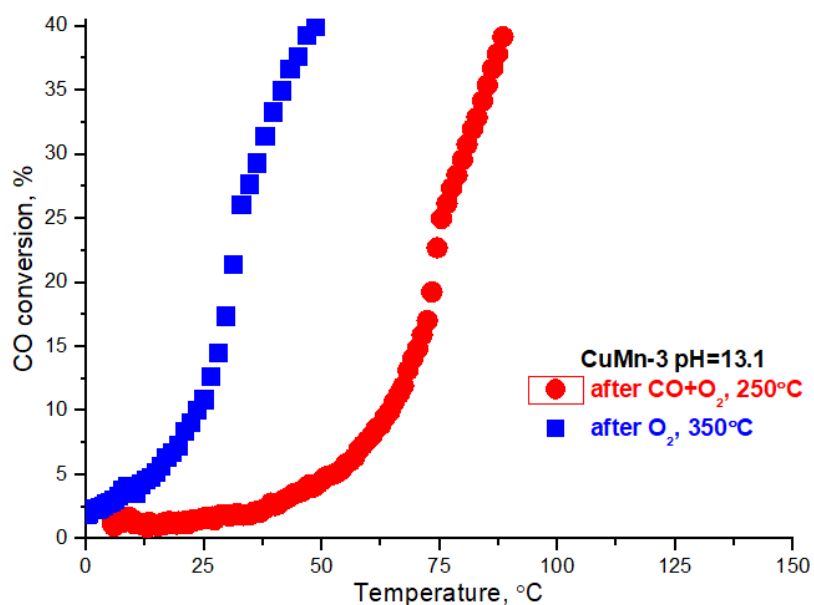


Fig.S2 Catalytic curves of CO conversion measured during the 3rd heating of CuMn-3 (pH=13.1) sample: as-prepared and pretreated in 20% O₂/Ar at 350°C for 1 h

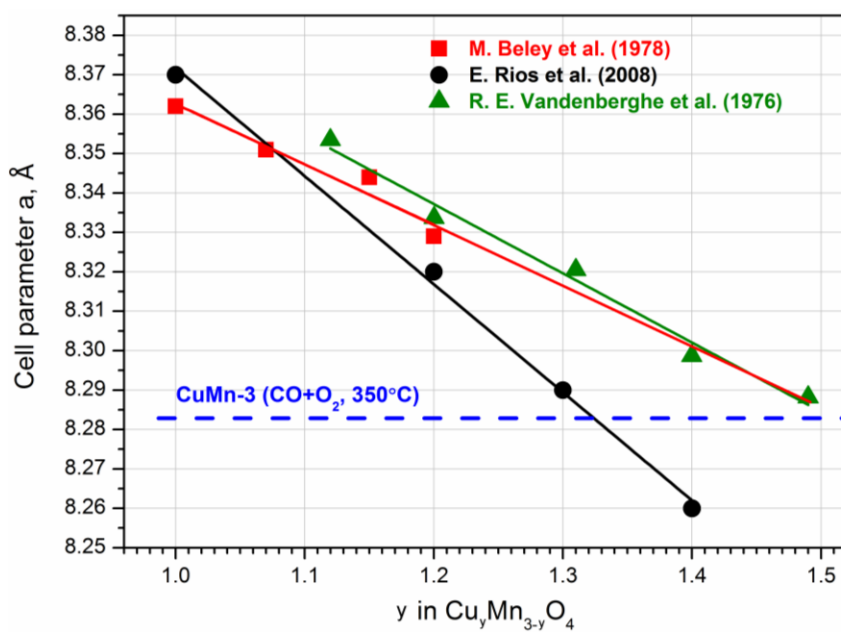


Fig.S3 The lattice parameter of Cu_yMn_{3-y}O₄ spinel versus y value

Table S2. Quantitative spectral characteristics of copper and manganese for spent CuMn-2 samples

Sample		Mn 2p _{3/2} , eV	ΔE ₁ , eV (±0.2)	Cu 2p _{3/2} , eV	Cu ⁺ , %	Cu/Mn
CuMn-2	pH=9.6	641.4	10.2	933.6	10	0.88
	pH=12.4	641.4	10.5	932.3	42	0.93
	pH=13.1	641.4	10.2	932.3	43	0.86