CO diffusion on metals

System	E_m [meV]	E_d [meV]	D_o [cm^2/s]	θ	T [K]	Method	Ref.	E_b [eV]	Ref.
CO/Mo(110)		220 - 560	10^{-3} - 10^{4}	0.1 - 0.8	115 - 220	FEM	[1]	–	
CO/Ru(001)		480 - 270	0.38 - 0.06	0.27-0.58	290 - 370	LITD	[2]	1.6	[3]
CO/Rh(111)		310 ± 20	2×10^{-3}-3×10^{-2}	0.01-0.4	260 - 400	LITD	[4]	1.3	[5]
CO/Ni(001)		280 - 200	0.25 - 0.03	0.25-0.66	200 - 300	LITD	[6]	1.2	[7]
	27±3 <100>		$5 \times 10^{-3\pm0.3}$	0.1	-	QHAS	[8, 9]		
	33±3 <110>		$7 \times 10^{-3\pm0.3}$						
CO/Ni(110)		170 - 90 ‖	1.5×10^{-6}-2×10^{-8}	0.1 - 1	140 - 220	LOD	[10]	1.3 - 1.4	[11, 12]
		200 - 120 ⊥	4.5×10^{-6}-2×10^{-8}		180 - 240				
	57 ± 4 ‖		1.8×10^{-4}	0.15	200 - 360	QHAS	[13]		
	35 ± 4 ⊥		7.3×10^{-5}		240 - 360				
CO/Ni(111)		300	1.2×10^{-5}	0.5	219 - 273	SHD	[14]	1.1	[15]
		290	1×10^{-3}	0.1 - 0.5	130 - 220	FEM	[16]		
CO/Pd(111)		520 ± 30	$1 \times 10^{0\pm2}$	0.1	321 - 400	PEEM	[17]	1.5	[18]
		175 ± 12	$2.2 \times 10^{-3\pm0.3}$		160 - 260	PEEM	[19]		
CO/Pt(110)(1×2)		570 ± 10 ‖	$1.5 \times 10^{0\pm1}$		320 - 370	PEEM	[20]	1.9-2.1	[21, 22]
		480 ± 30 ⊥	$6 \times 10^{-2\pm1}$						
CO/Pt(110)'(1×1)'		430 ± 20 ‖	$5 \times 10^{-3\pm1}$		320 - 440	PEEM	[20]		
		390 ± 30 ⊥	$7 \times 10^{-4\pm1}$						
CO/Pt(111)		300	$\{6 \times 10^{-5}\}$	< 0.05	150 - 200	HAS[a]	[23]	1.4	[24]
		170 ± 30	4×10^{-7}	< 0.03	90 - 200	IRAS[a]	[25]		
		260 ± 10	$5.0\pm0.1 \times 10^{-7}$	0.01	273 - 373	HAS	[26]		
		540 - 550	0.6 - 1.2	0.1 - 0.4	320 - 360	LITD	[27]		
	155 ± 30		–	0.11	37 – 42	IRAS[b]	[28]		
		540	7.5×10^{2}		480 - 520	HREELS	[29]		
		204±4 - 130±4	$1.4\pm0.4\times10^{-6}$ - $4.5\pm1\times10^{-7}$	0.1 - 0.67	130 - 320	LOD	[30]		
	130 ± 20		$\sim 1.4 \times 10^{-4}$	0.05	400	QHAS[c]	[31]		

CO/Cu(001)	31 ± 10	-	0.06	115 - 150	QHAS	[32]	0.6	[33]
CO/Cu(110)	97 ± 4 ||	$2.5 \times 10^{-8\pm0.4}$	monomer	40 - 55	STM	[34]	0.65	[35, 36]
	103 ± 5 ||	$3.6 \times 10^{-7\pm0.4}$	dimer					

[a] step decoration

[b] from bridge-to-top site hops

[c] estimate from frustrated translation

θ is given in number of admolecules per substrate atom; estimates from original authors in {};
|| is the [1-10] and ⊥ the [001] direction on a fcc(110) substrate

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