

## Supplemental Materials

A list of all references (in alphabetical order) that was taken into account in the literature review of ozone air-surface exchange displayed is provided in Table 1. This list of references does not claim to be complete.

**Table 1:** Literature review showing the frequency of method used for determination of ozone surface flux (EC = eddy correlation; PG = profile gradient; CH = chamber). Additional information includes the platforms used for each method and the various landscape categories where fluxes were measured. Also, the ranges of determined ozone gas exchange rates under each category are being reported.

(\*) The list of all references taken into account in the statistics of this table is given below the table.

Method/ Percent*	Platform	Percent* method	Landscape type by category	Percent* of studies	Gas exchange range (cm s <sup>-1</sup> )	
EC 65.3	Tower	50.8	agriculture	22.0	0.0 → 2.0	
			forest	37.3	-1.5 → 1.8	
			natural grass	20.3	0.0 → 0.5	
			bare soil	3.4	0.05 → 0.25	
			sand	1.7	0.04 → 0.15	
			snow	11.9	-0.05 → 0.5	
			ocean	3.4	0.005 → 0.04	
	urban	0	-			
	Aircraft	12.1		agriculture	46.7	0.01 → 1.2
				forest	20.0	0.8 → 1.0
natural grass				20.0	0.12 → 0.23	
bare soil				6.7	0.3 → 0.9	
sand				0.0	-	
snow				0.0	-	
ocean				6.7	0.05	
urban	0	-				
Balloon	2.4		agriculture	0	-	
			forest	0	-	
			natural grass	33.3	0.3 → 0.72	
			bare soil	0	-	
			sand	0	-	
			snow	33.3	0.006 → 0.3	
			ocean	0	-	
urban	33.3	0.085				
PG 25.8	Tower	22.6	agriculture	30.8	0.3 → 0.6	
			forest	30.8	0.04 → 1.1	
			natural grass	19.2	-0.4 → 2.3	
			bare soil	0	-	
			sand	0	-	
			snow	7.7	-3.3 → 1.7	
			ocean	7.7	0.08 → 1.15	
	urban	3.8	0.13			
	Ground	1.6		agriculture	0	-
				forest	0	-
natural grass				0	-	
bare soil				0	-	
sand				0	-	
snow				0	-	
ocean				0	-	
urban	100	0.0 → 0.45				
Balloon	1.6		agriculture	0	-	
			forest	66.7	Not available	
			natural grass	0	-	
			bare soil	33.3	Not available	
			sand	0	-	
			snow	0	-	
			ocean	0	-	
urban	0	-				
CH 8.9	-	8.9	agriculture	0	-	
			forest	18.2	0.0 → 0.5	
			natural grass	9.1	0.3 → 5.0	
			bare soil	18.2	0.5 → 5.0	
			sand	9.1	1.6 → 2.5	
			snow	18.2	0.004 → 0.125	
			ocean	27.3	0.015 → 0.1	
urban	0	-				

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