Location	Environment	$\gamma(N_2O_5)$	ϕ	Descriptions	Reference
North America					
New England, US	Coastal + Inland	0.001–0.017	n.a.	Aircraft measurement (below 1500 m), $\gamma(N_2O_5)$ is higher in elevated sulfate region	Brown et al. (2006)
Coast of Texas, US	Coastal	n.a.	0.10–0.65	Shipborne measurement, influenced by urban outflow	Osthoff et al. (2008)
Texas, US	Coastal + Inland	0.0005–0.006	n.a.	Aircraft measurement (below 1000 m), $\gamma(N_2O_5)$ was independent of humidity (RH, 34 % to 85 %) and aerosol compositions	Brown et al. (2009)
Seattle, US	Coastal	0.005–0.04	n.a.	Urban/suburban environment, $\gamma(N_2O_5)$ was enhanced with higher RH but has a strong correlation with the organic-to-sulfate ratio	Bertram et al. (2009)
Calgary, Canada	Inland	0.02	0.15	Ground urban area, influenced by anthropogenic activities within the urban area	Mielke et al. (2011)
La Jolla, US	Coastal	0.001–0.029	n.a.	Polluted coastal site, $\gamma(N_2O_5)$ was suppressed by nitrate	Riedel et al. (2012b)
Coast of Los Angeles, US	Coastal	n.a.	0.15–0.62	Shipborne measurement, influenced by the land-sea breeze	Wagner et al. (2012)
Pasadena, US	Coastal	$\gamma\phi = 0.008$ (average)		Ground measurement during the California Nexus 2010 campaign, $\gamma\phi$ was enhanced by submicron chloride, but suppressed by organic matter and liquid water content	Mielke et al. (2013)
Boulder, US	Inland	0.002–0.1	0.01–0.98	Tower measurement (0–300 m) downwind of an urban area, $\gamma(N_2O_5)$ dependence on nitrate, higher ϕ in coal combustion plume	Wagner et al. (2013), Riedel et al. (2013)
Europe					
London	Coastal + Inland	0.01–0.03	n.a.	Aircraft measurement (500–1000 m), $\gamma(N_2O_5)$ was independent of humidity (RH, 50 % to 90 %) but dependent on nitrate loading	Morgan et al. (2015)
Kleiner Feldberg	Inland	0.004–0.11	0.029–1.38	Semirural mountaintop site in SW Germany (825 m above sea level), $\gamma(N_2O_5)$ was independent of aerosol compositions but has a weak dependence on humidity	Phillips et al. (2016)
China					
Hong Kong	Coastal	0.004–0.021	0.02–0.98	Rural mountaintop site in southern China (957 m above sea level), influenced by pollution from the urban area	Brown et al. (2016), Yun et al. (2018)
Jinan	Inland	0.042–0.092	0.01–0.08	Urban surface site in the polluted urban area of northern China, $\gamma(N_2O_5)$ showed positive dependence on RH	X. Wang et al. (2017)
Mt. Tai	Inland	0.021–0.103	0.17–0.90	Mountaintop site in northern China (1465 m above sea level), Elevated $\gamma(N_2O_5)$ for high humidity (> 80 %) condition, higher ϕ in coal-fired power plant plumes	Z. Wang et al. (2017)
Beijing-urban	Inland	0.025–0.072	n.a.	Polluted urban surface site in northern China during early autumn, high $\gamma(N_2O_5)$ was related to high aerosol liquid water content	H. Wang et al. (2017)
Beijing-rural	Inland	0.012–0.055	0.50–1.00	Rural surface site in northern Beijing, influenced by the outflow of the urban Beijing	H. Wang et al. (2018)
Wangdu	Inland	0.005–0.039	0.06–1.04	Semirural and surface site in northern China, $\gamma(N_2O_5)$ has a strong dependence on humidity and aerosol water content, Variable ϕ and lower values for cases influenced by biomass burning activities	This study