

Table 1 Description of key features of the available global air pollutant emission inventories

No	Inventory	Pollutants	Duration	Resolution		Source ¹	Sources			Reference to be cited	Contact
				Spatial	Temporal		Fuel	Ind.	Agri.		
1	PKU-CO2-v2	CO ₂	1960-2014	0.1°	monthly	64	✓	✓		<i>Wang et al., ACP 2013, 13, 5189</i> <i>Liu et al., Nature 2015, 335</i>	Tao, Shu ³
2	PKU-CO-v2	CO	1960-2014	0.1°	monthly	81	✓	✓		<i>Zhong et al., ESPR 2016, 24, 864</i>	Tao, Shu ³
3	PKU-PM2.5-v2	primary PM _{2.5}	1960-2014	0.1°	monthly	86	✓	✓		<i>Huang et al., ES&T 2014, 48, 13834</i>	Tao, Shu ³
4	PKU-PM10-v2	primary PM ₁₀	1960-2014	0.1°	monthly	86	✓	✓		<i>Huang et al., ES&T 2014, 48, 13834</i>	Tao, Shu ³
5	PKU-TSP-v2	primary TSP	1960-2014	0.1°	monthly	86	✓	✓		<i>Huang et al., ES&T 2014, 48, 13834</i>	Tao, Shu ³
6	PKU-BC-v2	BC	1960-2014	0.1°	monthly	73	✓	✓		<i>Wang et al., PNAS 2014, 111, 2459</i>	Tao, Shu ³
7	PKU-OC-v2	OC	1960-2014	0.1°	monthly	76	✓	✓		<i>Huang et al., AE 2015, 122, 505</i>	Tao, Shu ³
8	PKU-SO2-v2	SO ₂	1960-2014	0.1°	monthly	76	✓	✓		<i>Zhang et al., to be published</i>	Tao, Shu ³
9	PKU-NOx-v2	NO _x	1960-2014	0.1°	monthly	86	✓	✓		<i>Huang et al., to be published</i>	Tao, Shu ³
10	PKU-NH3-v2	NH ₃	1960-2014	0.1°	monthly	75	✓	✓		<i>Meng et al., ES&T, 2017,online</i>	Tao, Shu ³
11	PKU-PAHs-v2	PAHs ²	1960-2014	0.1°	monthly	77	✓	✓		<i>Shen et al., ES&T 2013, 47, 6415</i>	Tao, Shu ³
12	PKU-CH4-China-v1	CH ₄ ²	1980-2010	0.1°	annual	8 ⁵	✓		✓	<i>Peng et al., ACP doi:10.5194/acp-16-14545-2016</i>	Peng, Shushi ⁴

¹ Only the total number of sources per pollutant are provided here and the detailed sources are listed in Table 2.

² Inventories for the 16 polycyclic aromatic hydrocarbons listed among U.S. EPA priority pollutants for this class of chemicals, including naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, benzo(g,h,i)perylene

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⁵ Category 'Agri' includes the following: livestock, rice cultivation, and biomass and biofuel burning (both residential and open field); category 'Fuel' includes the following: combustion, exploitation, and transportation for fossil fuel; category 'Waste' includes the following: landfills and wastewater