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Corrigendum to

"Global and regional emission estimates for HCFC-22", Atmos. Chem. Phys., 12, 10033–10050, 2012

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We have recently found a numerical error in our MOZART coarse-resolution simulation and we have rerun and recalculated the optimized emissions for the global inversion. While the changes are small, we are replacing Figs. 3 and 4 as well as Table 2 published in Atmos. Chem. Phys. The values that have changed are optimized emissions (blue line and the blue-shaded area) in Fig. 3, three posterior values and their shaded areas in Fig. 4, and posterior global emissions in the global inversion (Table 2, 3rd column from the left).

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Table 2. Prior and Posterior Global Total Emissions and Annual Global/Regional Consumption of HCFC-22 (Gg yr^{-1}). Consumption data is taken from UNEP (2011).

	Prior Global	Posterior Global	Posterior Global	Global	Regional consumption								
Year	emissions	emissions (Global inversion)	emissions (Regional inversion)	consumption	Asia	Asia	Central Africa	America	North America	Central America	Latin East	Middle Europe	Oceania
1990	217												
1991	227												
1992	235												
1993	236												
1994	241												
1995	237	221 ± 31.9											
1996	239	238 ± 33.0											
1997	242	250 ± 28.9											
1998	246	237 ± 20.2											
1999	250	249 ± 21.2											
2000	255	297 ± 25.1											
2001	267	279 ± 21.8		329	133	12.2	7.30	105	1.89	13.2	15.2	36.8	2.53
2002	279	282 ± 16.7		298	128	5.35	7.62	108	1.85	11.2	16.6	16.0	2.85
2003	289	284 ± 14.9		321	134	7.17	9.26	114	1.59	12.9	17.5	22.4	2.34
2004	302	294 ± 15.2		354	163	6.23	9.47	109	2.40	15.9	21.9	23.3	2.33
2005	331	336 ± 16.0	222 ± 24.1	409	213	7.17	9.41	116	2.88	14.8	21.3	21.8	2.20
2006	352	341 ± 16.9	310 ± 23.3	432	232	9.76	11.0	104	4.02	16.8	31.7	20.6	1.88
2007	376	378 ± 17.8	351 ± 22.6	505	273	13.5	15.4	120	3.27	20.6	37.6	20.0	1.80
2008	404	374 ± 18.9	315 ± 23.4	468	244	14.3	18.5	102	3.80	21.1	42.0	20.9	1.46
2009	437	389 ± 25.8	367 ± 26.1	478	275	12.8	29.4	69.3	3.57	24.5	46.4	15.3	1.60

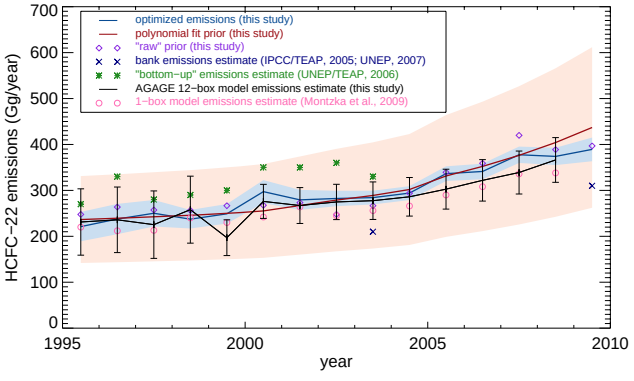

Fig. 3. Global total HCFC-22 emissions. Prior emission estimates using EDGAR v4, the growth rate between 1990–2000 (McCulloch et al., 2003), and HCFC-22 consumption between 2001–2009 (UNEP, 2011) are shown in diamonds. Polynomial fit of these "raw" prior values that we used in our global inversion are shown as a red line with a shaded (pink) 40 % uncertainty range. Optimized emissions from this study are shown in blue with our calculated posterior uncertainty. Previously published bank emission estimates (blue crosses) (IPCC/TEAP, 2005; UNEP, 2007), "bottom-up" emission estimates (green stars) (UNEP/TEAP, 2006), 1-box model emission estimates (pink circle) (Montzka et al., 2009), as well as new AGAGE 12-box model emission estimates (black line) are also shown for comparison.

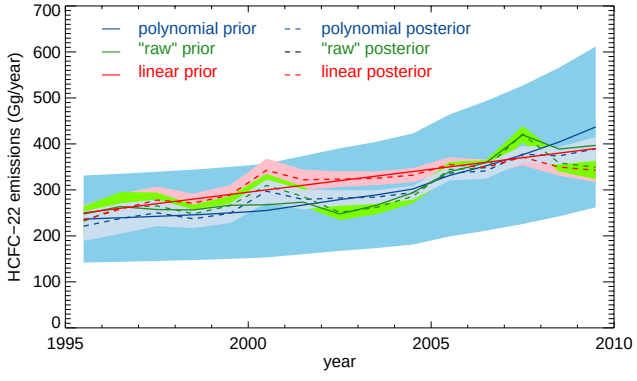

Fig. 4. Global total prior (solid lines) and posterior (dash lines) HCFC-22 emissions using the following three sets of a priori emissions: polynomial fit prior (blue), "raw" prior (green), and linear fit prior (red).