

Table 1R. Number of fires and burnt area in the five Southern Member States in the last 25 years
(European Commission, 2005).

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Number of fires	PORTUGAL	SPAIN	FRANCE	ITALY	GREECE	TOTAL
2004	21891	21394	2028(*)	6423	1748	53489
% of total in 2004	40.9	40.0	3.8	12.0	3.3	100
Average 1980-1989	6778	9514	4910	11571	1264	34036
Average 1990-1999	22250	18151	5537	11352	1748	59039
Average 2000-2004	26659	20779	4207	7696	1891	60633
Average 1980-2004	16623	15222	5020	10709	1583	49357
TOTAL (1980-2004)	420573	380551	125503	267718	39570	1233915

Burnt areas (ha)	PORTUGAL	SPAIN	FRANCE	ITALY	GREECE	TOTAL
2004	129652	134171	12500	60176	10267	346766
% of total in 2004	37.3	38.7	3.6	17.4	3.0	100
Average 1980-1989	74486	244788	39157	148485	52417	559331
Average 1990-1999	102203	161323	22695	108890	44108	439219
Average 2000-2004	189532	129106	32078	76764	36610	464090
Average 1980-2004	108582	188265	31156	118303	45932	492238
TOTAL (1980-2004)	2714547	4706633	778900	2957172	1148298	12305950

(*) number of fires for Southern France only

Table 2R. Number of exceedances of the PM₁₀ daily European limit value (50 µg m⁻³) from EMEP observations, CALIOPE modelled values and BSC-DREAM8b modelled values.

Station name	Number of exceedances of the PM ₁₀ daily limit value		
	EMEP	CMAQ + BSC-DREAM8b	BSC-DREAM8b
Austria_Illmitz_AT02	28	1	0
Austria_Vorhegg_AT05	1	0	0
Switzerland_Payerne_CH02	9	0	0
Switzerland_Tanikon_CH03	7	0	0
Switzerland_Chaumont_CH04	0	0	0
Switzerland_Rigi_CH05	0	0	0
Germany_Westerland_DE01	6	0	0
Germany_Langenbrugge_DE02	5	0	0
Germany_Schauinsland_DE03	1	0	0
Germany_Neuglobsow_DE07	2	0	0
Germany_Schmucke_DE08	0	0	0
Germany_Zingst_DE09	5	0	0
Denmark_Keldsnor_DK05	3	0	0
Spain_Viznar_ES07	25	18	12
Spain_Niembro_ES08	0	0	0
Spain_Campisabalos_ES09	9	4	2
Spain_Cabo_de_Creus_ES10	0	0	0
Spain_Barcarola_ES11	8	2	2
Spain_Zarra_ES12	9	9	4
Spain_Penausende_ES13	4	1	1
Spain_Els_Torms_ES14	15	0	0
Spain_Risco_Llamo_ES15	10	2	1
Spain_O_Savinao_ES16	2	0	0
Italy_Montelibretti_IT01	21	4	0
Italy_Ispra_IT04	71	22	0

Table 3R. Annual mean average (in $\mu\text{g m}^{-3}$) of EC and OC with CALIOPE system for 2004 at the EMEP/CREATE stations of Melpitz and Birkenes.

	EC ($\mu\text{g m}^{-3}$)		OC($\mu\text{g m}^{-3}$)	
	Obs.	Mod.	Obs.	Mod.
Melpitz (DE44)	1.384	0.140	1.825	0.520
Birkenes (NO01)	0.095	0.073	0.842	0.160

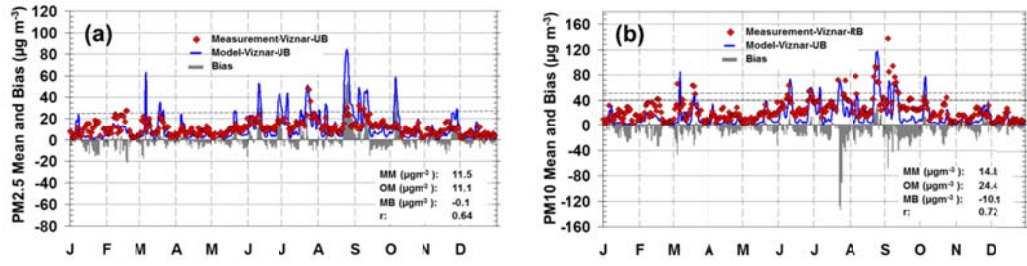


Figure 1R: Time series of observed (red diamond) and simulated (blue continuous line) daily $\text{PM}_{2.5}$ (left column) and PM_{10} (right column) for the year 2004: at (a, b) Viznar EMEP station. The dashed lines represent the current limit values in Europe (European Commission, 2008) for PM_{10} (annual and daily limit values of $40 \mu\text{g m}^{-3}$ and $50 \mu\text{g m}^{-3}$ not to be exceeded 35 times in a year, respectively) and for $\text{PM}_{2.5}$ (annual limit value of $25 \mu\text{g m}^{-3}$). Statistics for each station are shown in the figure (bottom right): modelled mean (MM), observed mean (OM), mean bias (MB) and correlation coefficient (r). Extracted from the supplementary material of Pay et al. (2011a).

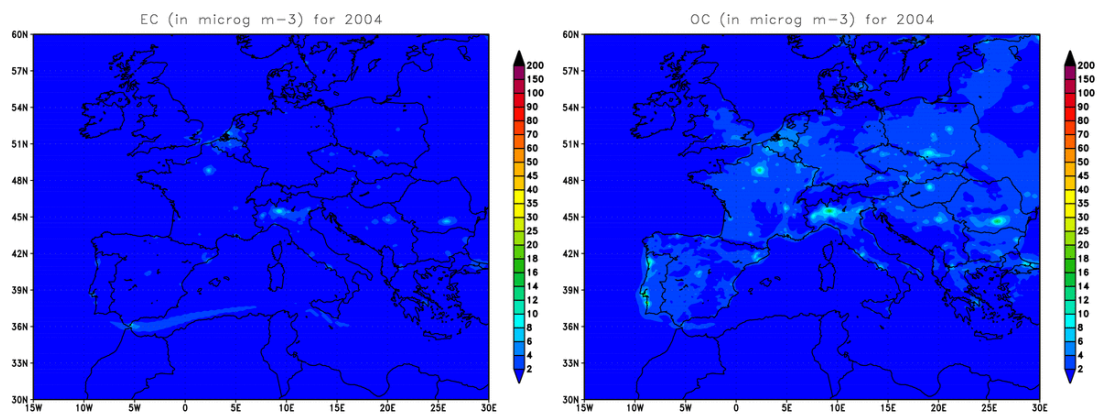


Figure 2R. Annual average of the EC and OC (in $\mu\text{g m}^{-3}$) obtained with the corrected CMAQ + BSC-DREAM8b simulations.