Table S1. Concentrations of criteria atmospheric pollutants (ppm).

	CEN						TLA			AGU		
	Warm-dry season			Rainy Season			Warm-dry season			Rainy Season		
	Mean	Range		Mean	Range		Mean	Range		Mean	Range	
		Min	Max		Min	Max		Min	Max		Min	Max
O_3	0.03	0.02	0.05	0.03	0.01	0.04	0.02	0.02	0.04	0.02	0.01	0.04
NO	0.01	0.00	0.03	0.01	0.002	0.02	0.02	0.005	0.05	0.01	0.003	0.02
NO_2	0.02	0.01	0.02	0.01	0.01	0.02	0.02	0.01	0.05	0.02	0.01	0.03
NO_X	0.03	0.02	0.05	0.02	0.01	0.04	0.04	0.02	0.08	0.04	0.02	0.05
SO_2	0.01	0.00	0.01	0.002	0.001	0.004	0.003	0.001	0.004	0.002	0.001	0.004
CO	0.39	0.28	0.61	0.49	0.05	0.86	0.62	0.42	0.96	0.80	0.60	0.98

Table S2. Quinone correlation with meteorological parameter for the full database.

	1,4-NQ	1,4-PQ	9,10-AQ	9,10-PQ	1,2-BQ	1,4-CQ	5,12-NQ	T	RH	WSP	SR
1,4-NQ	1.00										
1,4-PQ	0.33	1.00									
9,10-AQ	0.68**	0.27	1.00								
9,10-PQ	0.46**	.61**	0.51**	1.00							
1,2-BQ	0.35*	-0.04	0.04	0.18	1.00						
1,4-CQ	0.24	0.22	-0.21	0.08	0.71**	1.00					
5,12-NQ	0.53**	0.25	0.36*	0.48**	0.70**	0.56**	1.00				
T	0.34	0.23	0.49**	0.40*	-0.06	-0.05	0.28	1.00			
RH	-0.42*	0.07	-0.75**	-0.30	0.05	0.27	-0.17	-0.69**	1.00		
WSP	0.16	-0.15	0.51**	0.00	-0.33	-0.40*	-0.12	0.43*	-0.66**	1.00	
SR	0.58**	0.18	0.50**	0.29*	-0.05	-0.13	0.22	0.39**	-0.58**	0.24*	1.00

* Significative correlation at 0.05 level (2-tailed)

** Significative correlation at 0.01 level (2-tailed)

T: Temperature (°C)

RH: Relative Humidity (%)

WSP: Wind Speed (m s^{-1})

SR: Solar Radiation W/m^{-2}

Table S3. Quinone correlation with $PM_{2.5}$ and criteria pollutants at Centro for both seasons.

	$PM_{2.5}$	**1,4-NQ**	**1,4-PQ**	**9,10-AQ**	**9,10-PQ**	**1,2-BQ**	**1,4-CQ**	**5,12-NQ**	**O_3**	**NO**	**NO_2**	**NO_X**	**SO_2**	**CO**
$PM_{2.5}$	1.00													
1,4-NQ	0.34*	1.00												
1,4-PQ	0.00	0.33	1.00											
9,10-AQ	0.55**	0.68**	0.27	1.00										
9,10-PQ	0.25	0.46**	0.61**	0.51**	1.00									
1,2-BQ	-0.09	0.35*	-0.04	0.04	0.18	1.00								
1,4-CQ	-0.23	0.24	0.22	-0.21	0.08	0.71**	1.00							
5,12-NQ	0.24	0.53**	0.25	0.36*	0.48**	0.70**	0.56**	1.00						
O_3	0.11	-0.04	0.33	0.06	0.29	-0.20	-0.09	-0.05	1.00					
NO	0.36*	0.39*	-0.45*	0.33	0.02	0.49**	0.15	0.41*	-0.54**	1.00				
NO_2	0.71**	0.46**	-0.01	0.61**	0.49**	0.25	-0.02	0.54**	0.06	0.54**	1.00			
NO_X	0.51**	0.43*	-0.29	0.41*	0.23	0.46**	0.17	0.52**	-0.36*	0.90**	0.79**	1.00		
SO_2	0.59**	0.33	-0.42*	0.65**	0.16	0.04	-0.27	0.18	-0.40*	0.76**	0.58**	0.69**	1.00	
CO	-0.16	-0.13	0.28	-0.41*	0.15	0.12	0.32	0.27	0.25	-0.24	0.02	-0.10	-0.48*	1.00

* Significative correlation at 0.05 level (2-tailed)

** Significative correlation at 0.01 level (2-tailed)

Table S4. Quinone correlation with $PM_{2.5}$ and criteria pollutants at Tlaquepaque.

	$PM_{2.5}$	1,4-NQ	1,4-PQ	9,10-AQ	9,10-PQ	1,2-BQ	1,4-CQ	5,12-NQ	O_3	NO	NO_2	NO_X	SO_2	CO
$PM_{2.5}$	1.00													
1,4-NQ	0.11	1.00												
1,4-PQ	-0.02	-0.24	1.00											
9,10-AQ	0.63**	0.31	-0.08	1.00										
9,10-PQ	0.26	0.48*	0.35	0.20	1.00									
1,2-BQ	0.61**	0.05	0.23	0.35	0.21	1.00								
1,4-CQ	0.30	0.23	0.50*	0.26	0.57**	0.54*	1.00							
5,12-NQ	0.56*	0.19	0.29	0.37	0.39	0.90**	0.79**	1.00						
O_3	-0.13	-0.51*	0.19	-0.19	-0.25	-0.03	-0.13	-0.11	1.00					
NO	0.22	0.35	-0.29	0.18	0.03	0.06	0.24	0.16	-0.55*	1.00				
NO_2	0.30	0.04	-0.11	0.12	0.30	0.10	0.19	0.13	-0.27	0.60**	1.00			
NO_X	0.28	0.15	-0.15	0.14	0.20	0.05	0.23	0.11	-0.48	0.77**	0.92**	1.00		
SO_2	0.23	0.31	-0.17	0.32	-0.02	-0.03	0.06	0.04	-0.50*	0.45	0.19	0.28	1.00	
CO	0.26	0.17	-0.03	0.06	0.35	0.41	0.52*	0.48*	-0.47	0.70**	0.78**	0.82**	0.04	1.00

* Significative correlation at 0.05 level (2-tailed)

** Significative correlation at 0.01 level (2-tailed)

Table S5. Quinone correlation with $PM_{2.5}$ and criteria pollutants at Las Águilas.

	$PM_{2.5}$	1,4-NQ	1,4-PQ	9,10-AQ	9,10-PQ	1,2-BQ	1,4-CQ	5,12-NQ	O_3	NO	NO_2	NO_X	SO_2	CO
$PM_{2.5}$	1.00													
1,4-NQ	-0.10	1.00												
1,4-PQ	0.44	0.61**	1.00											
9,10-AQ	0.20	0.40	0.80**	1.00										
9,10-PQ	0.18	0.17	0.14	-0.05	1.00									
1,2-BQ	0.63**	-0.20	0.35	0.37	0.05	1.00								
1,4-CQ	0.50*	-0.15	0.18	0.11	0.11	0.85**	1.00							
5,12-NQ	0.67**	0.04	0.49*	0.39	0.13	0.89**	0.74**	1.00						
O_3	-0.04	0.24	-0.07	-0.22	0.55*	-0.55*	-0.52*	-0.29	1.00					
NO	0.27	-0.19	0.10	0.24	-0.53*	0.65**	0.51*	0.54*	-0.75**	1.00				
NO_2	0.57*	0.03	0.18	0.03	0.43	0.52*	0.42	0.62**	0.04	0.28	1.00			
NOX	0.27	-0.62**	-0.30	-0.25	-0.28	0.60**	0.63**	0.41	-0.63**	0.71**	0.30	1.00		
SO_2	-0.09	-0.28	-0.52*	-0.34	-0.15	0.08	0.25	-0.24	-0.37	0.23	-0.11	0.48	1.00	
CO	0.45	-0.34	-0.16	-0.19	0.26	.672**	0.59**	0.65**	-0.22	0.49*	0.79**	0.69**	0.27	1.00

* Significative correlation at 0.05 level (2-tailed)

** Significative correlation at 0.01 level (2-tailed)

Table S6. Number of hourly trajectories assigned to each cluster by day during the rainy season and percentage of 9,10-PQ photochemically formed in AGU site.

Site	Date	Rainy Season				
		Red North-northwest	Green West-southwest	Blue East	Cyan Southeast	9,10-PQ photochemically formed (%)
AGU	20/07/2014	12	8	4		-
AGU	23/07/2014	20			4	-
AGU	29/07/2014	24				68
AGU	01/08/2014		18		6	36
AGU	04/08/2014	24				-
AGU	07/08/2014		20		4	-
AGU	10/08/2014		24			-
AGU	13/08/2014	8		10	6	-
AGU	16/08/2014	21			3	52
AGU	19/08/2014		24			-
AGU	22/08/2014			15	9	65
AGU	25/08/2014	5	19			18
AGU	28/08/2014			9	15	61
AGU	31/08/2014	5			19	72
AGU	03/09/2014		8		16	51
AGU	06/09/2014	24				-
AGU	09/09/2014	15		9		28
AGU	12/09/2014	8		7	9	53
AGU	15/09/2014	9			15	-

Contribution photochemical was not found.

Table S7. Number of hourly trajectories assigned to each cluster by day during the dry-warm season and percentage of 9,10-PQ photochemically formed in TLA site.

Site	Date	Dry-warm season				9,10-PQ photochemically formed (%)
		Red	Blue	Cyan	Green	
		West - Northwest	Southwest	Southeast	East	
TLA	25/03/2014	14	10			89
TLA	27/03/2014	24				97
TLA	01/04/2014		24			-
TLA	03/04/2014	24				92
TLA	07/04/2014	7	14	3		-
TLA	09/04/2014			10	14	-
TLA	11/04/2014	13	11			-
TLA	21/04/2014	24				-
TLA	23/04/2014		24			-
TLA	25/04/2014	14	10			-
TLA	14/05/2014	15	4	5		-
TLA	18/05/2014	12	12			36
TLA	21/05/2014		11	13		-
TLA	24/05/2014		24			-
TLA	27/05/2014		20	4		-
TLA	30/05/2014			12	12	-

Contribution photochemical was not found.