Description	Domain 9 km	Domain 3 km
Simulation period	00 Z, 03 October – 00 Z, 06 November 2014	
Bounding box	Longitude: 50.57104ºW to 42.13599ºW Latitude: 27.05956ºS to19.88816ºS	Longitude: 47.94067ºW to 45.38934ºW Latitude: 24.57928ºW to 22.41285ºW
Number of points	x = 95, y = 90	x = 90, y = 82
Vertical levels	34 layers from surface to 50 hPa	
Thickness of first layer	56 m	56 m
Microphysics	(Lin et al., 1983)	
Cumulus	(Grell and Dévényi, 2002)	-
Longwave Radiation	RRTM (Mlawer et al., 1997)	
Shortwave Radiation	Goddard (Chou and Suarez, 1999)	
Land use	(Tewari et al., 2004)	
Boundary Layer	(Hong et al., 2006)	
Surface	(Zhang and Anthes, 1982)	
Initial condition	GFS 0.5 (Saha et al., 2010)	WRF Chem run domain 1
Boundary Condition	GFS 0.5 (Saha et al., 2010)	WRF Chem run domain 1
Urban Physics	(Chen et al., 2011)	
Topography wind	(Jiménez and Dudhia, 2012)	
Emissions		VEIN (Ibarra-Espinosa et al., 2018)
Chemical mechanism	RADM2 (Stockwell et al., 1990)	
Inorganic aerosols	MADE (Ackermann et al., 1998)	
Organic aerosols	SORGAM (Schell et al., 2001)	