

Name-Surname	Ermioni Dimitropoulou
Thesis Title	<i>Biogenic emission inventory over Greece and Attica-Impact of meteorological parameters on their production</i>
Supervisor	H. Flocas, Associate Professor
Summary	Biogenic emissions affect the urban air quality as they are ozone and SOA precursors and should be taken into account when applying photochemical pollution models. The present study presents an estimation of the magnitude of nonmethane hydrocarbon emissions (NMVOCs) emitted by vegetation over Greece and Attica. The methodology is based on computation performed with the aid of a Geographic Information System (GIS) and theoretical equations in order to produce a NMVOCs emission inventory on a 6x6km spatial resolution, in a temporal resolution of 1hr covering one year. For this purpose, a variety of input data was used: improved satellite land-use data, land-use specific emission potentials, foliar biomass densities, temperature and solar radiation data. For the area under study, the hourly, daily, monthly, seasonal and annual isoprene, monoterpenes and other volatile organic compounds (OVOCs) emissions were estimated. Results delineate an annual cycle with increasing values from March to April, with maximum emissions from May to September, followed by a decrease from October to January.
Key words	Biogenic emissions, Greece, Attica, Geographic Information System (GIS)
Evaluation committee	H. Flocas, Associate Professor V. Assimakopoulos, Senior Researcher A. Nenes, Professor