

URBAN HEAT ISLAND OF VALPARAÍSO, CHILE - A COMPARISON BETWEEN 2007 AND 2016.
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Abstract. The urban heat island phenomenon shows that the city changes the climate of the planet and affects it negatively by favouring the global warming. Urban morphology and city metabolism defines this behaviour. The city of Valparaíso, Chile, located in coastal Mediterranean climate in southern hemisphere is a city with around 295,000 inhabitants. In this research, the differences between UHI phenomenon in winters of 2007 and 2016 are evaluated. The city presented a temperature difference of 4.6 °C between the outskirts and the urban centre as a manifestation of this phenomenon, in 2007. By 2016 the city in population not increases and has had small morphological variations; the city presents an average temperature difference of 5.2 ° C between the outskirts and the urban centre as manifestation of urban heat island. This higher temperature occurs in the higher density built area, mainly of offices buildings. Here is the highest density of metabolic activity of the city, same as 2007.