Drying process assisted by microwaves results in shorter time and higher yields of process and frequently can achieve products with superior quality compared to only air dried ones. It can be advantageous the use of pre-treatments before drying operation in order to achieve desired features to final products. Drying of manioc roots is a possible way to produce starch rich products like snack. Cooking operation of the root pieces presents the advantage of soften the vegetal tissue. Therefore, this work focused on the study of cooking as a pre-treatment of microwave drying of manioc root slices. The experiments were carried out in an adapted domestic microwave oven with air flow and different cooking times, microwave power and air conditions were tested in order to evaluate the influence of pre-cooking on drying kinetics of manioc roots slices. The results shown in graphs indicated that pre-cooking treatment influenced the drying kinetics of manioc root slices. As expected, the microwave power presented a more prominent effect than air flow on the drying of this product as well. Therefore, the pre-cooking treatment can be applied to improve the drying operation of manioc roots and the product quality.

Keywords: dielectric heating, food dehydration, drying kinetics, cassava