

Cool-Down Time study

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Abstract: The effect of cool down time after microwave extraction on essential oil yield in the EssenExTM- 100 reactor was studied. The results indicate that a minimum of 2 minutes should pass prior to the opening of the reactor.

Experimental: Orange peel grated from one selected sample of Navel Oranges was utilized as a source for the extraction of orange oil using the EssenEx®-100 Reactor and a Panasonic microwave oven.

As can be observed in Figure 1, oil yield increased until a minimum of 2 minutes of cool down took place prior to opening of the reactor and recovery of the oil. Note: This experiment was performed with a very low total yield orange peel sample, however similar results have been produced with a variety of other materials. Cool down times greater than 2 minutes appear to have no adverse effects on the oil yield.

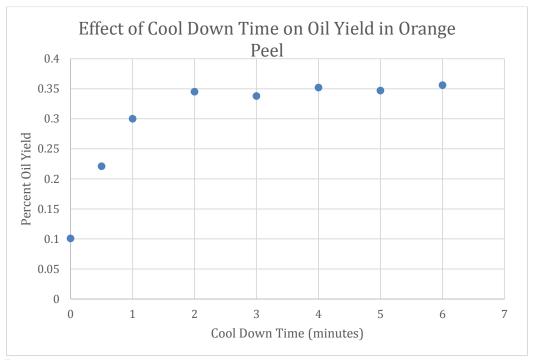


Figure 1

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