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## (54) Title of the invention : SOLAR SUGARCANE JUICER WITH CUSTOMIZED COOLING AND ADDITIVE DOSAGE DESIGN

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## (57) Abstract:

Title: Solar Sugarcane Juicer with Customized Cooling and Additive Dosage Design The present disclosure discloses a sugarcane juicer machine with customized cooling and additive dosage design that offers a ready to serve sugarcane juice. The juicer machine is powered using solar energy which is used in any remote part of the world. The juicer machine comprises of a juice extractor, a clarifier, a cooling unit and an additive dosage selector. The cooling unit further comprises of a brine tank, plurality of Peltier cells and plurality of helical coils. The clarifier may include a centrifugal clarifier that aid in separating the solids from the extracted juice. The plurality of Peltier cells are powered by the solar power supply that aid in customized cooling the brine solution as per customer requirement. The juicer provide different levels of cooling and different flavors for taste enhancement. The additive dosage selector is incorporated to add different customized additives as per customer requirement to the cooled juice to make it tastier. The juice is blended with other taste improvers that provide health benefits to cure or prevent some diseases. The solar sugarcane juicer machine provides a hygiene sugarcane juice at an affordable price that can be assured to all rural, semi urban and urban population.

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