Drink based on orange juice with tangerine cells in suspension

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The study aimed to develop an orange juice base drink, with intact cells in suspension. Oranges slices of the tangerine variety ware manually peeled, then, in order to obtain intact cells, the slices passed trough a enzymatic treatment with 0.5% and 1% of Peelenzym (KTN02138) in water under different temperatures, from 20 to 60 °C for 30 minutes. Cells were separated by swirling (400 rpm for 10 minutes) after the enzymatic treatment. An orange juice drink based was formulated with concentrated orange juice, water, sucrose, citric acid and hydrocolloid 0.05% (gellan gum kind K7B518 CpKelco®). Through the “Stokes Law” was obtained the relationship between the orange juice and simple cells densities. It was found that the enzyme concentration and the optimal temperature for removing the membrane of the tangerine slices without damage the cells was 0.5% at 40°C for 30 minutes. The gum raised the liquid phase viscosity, what also contributed for the cells suspension in the drink. The drink elaborated presented characteristics that meet the actual market trend, attending the consumers that are looking for healthy and attractive food.