The Effect of Frequency on Wave Formation in Sugar-Water Mixtures of Various Specific Gravities

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The relationship between the frequency at which a liquid solution is vibrated and the wave formations that occurred were tested in this experiment. Originally observed by Michael Faraday, vibrated liquids show a rich and robust area of experimentation and research in the understanding of the interaction vibration of a solution. An apparatus was designed and built to test the relationship between specific gravity and wave form production in a doughnut-shaped, free-standing solution. Fluids with different specific gravities were vibrated at varying frequencies to test for initial formation of various wave formations. It was observed that the higher the specific gravity, the higher the initiating frequency had to be to induce the various wave forms.

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