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**Abstract**

## **Impact of vertical succussion strokes vs. vortex potentization on droplet evaporation patterns obtained from *Iscador Quercus* 3x potency**

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**Background** Pharmaceutical processing of homeopathic potencies consists of consecutively performed dilution and succussion steps. While the dilution steps are well defined, the manner of performing the succussions varies broadly among potency producers. **Aims** To study the impact of potentization consisting in the performance of vertical succussion strokes vs. vortex-like flow on droplet evaporation patterns obtained from *Iscador Quercus* 3x (ISCQ 3x). **Methodology** ISCQ 3x was prepared in three following variants: potentized for 2.5 min (i) by application of mechanically performed vertical strokes, or (ii) hand-made vortex-like flows; or (iii) only diluted and not-succussed control. Droplet evaporation method was performed as described in (1); in short: droplets of the three ISCQ 3x variants were evaporated on microscope slides (56 droplets of each variant distributed on four slides were evaporated in one experimental repetition). The experimental setup robustness was monitored by means of positive systematic control experiments, where on all 12 slides droplets of the ISCQ 3x variant potentized by the application of strokes were evaporated. The experiments were repeated five times. The resulting droplet residues were photographed in magnification 100x; the patterns were analyzed by means of the *Image J* software for their grey level distribution and textural and fractal parameters. **Results and discussion** All three ISCQ 3x variants could be significantly differentiated regarding some textural and fractal parameters; most parameters differentiated between the variant potentized by means of vertical strokes and the control and vortex-potentized variants. Fractal and textural parameters ranked the samples differently. Control experiments showed a reasonable experimental setup robustness. **Conclusion** The potentization by performing mechanical strokes vs. hand-made vortex-like flows influenced some phenomenological aspects of droplet evaporation patterns. This might indicate that some changes occurred on substance level as consequence of the mechanical impact. Further studies are necessary in this field.

**Keywords:** potentization, vortex flow, droplet evaporation patterns, *Iscador*, low potencies.

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