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**On frequency scaling of ultrasonic cavitation and cleaning**

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In virtually all applications of acoustic cavitation, variations of the effects with sound frequency are observed. However, a simple comparison of analogical setups at different frequencies can be misleading, as other parameters, like wavelength or emitted transducer power, change jointly with the driving frequency. Indeed, the similarity of acoustically cavitating systems under scaling of frequency is not well defined yet, in particular because it is not clear what observable should stay the same. A possible way of characterization of “similar” systems could be the observation of similar cavitation bubble structures, like for hydrodynamic flow patterns or hydrodynamic cavitation structures. This idea is debated on experimental and theoretical basis, and the consequences for cleaning applications in the higher frequency range are discussed.