ARTICLE TYPE

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Moving pulsed dielectrophoresis - Supplementary Information

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Fourier Transformation of the applied signals



Fig. 1 Fourier Transformation of the applied pulsed DEP signals (a) pDEP signal Fourier transform, 5 harmonics can be observed up to 15 MHz. The first one is the standard harmonic of 50 kHz and the second carrier signal of 2 MHz is also visible. Signals at 6, 10 and 14 MHz are also visible. At those frequencies, a nDEP behaviour should be observed but the motion of the beads submitted to this signal clearly indicate a pDEP behaviour. The high order harmonics do not seem to interfere with the principal one. (b) nDEP signal Fourier transform. The principal harmonic can be seen at 2 MHz and second and third order ones at 8 and 12 MHz. At those frequencies, an nDEP behaviour will be induced in the PS bead and those higher orders harmonic would contribute since nDEP is observed at higher frequencies.