

Table 1. Parameters settings in MDPD simulations

| description | MDPD units | Physical units |
|--|-----------------------|----------------|
| Radius, R_c | 14 | $18.5 \mu m$ |
| density, ρ | 6.09 | $1056 kg/m^3$ |
| Surface tension, σ | 7.51 | $56.5 mN/m$ |
| dynamic viscosity, μ | 4.872 | $0.0064 Pas$ |
| | 7.649 | 0.01 Pas |
| static contact angle, θ_c | 45 °, 124 ° | |
| impinging angle θ_i . | 0 °, 30 °, 45 °, 60 ° | |
| Weber number, $We = \frac{2\rho U_0^2 R_c}{\sigma}$ | 5.68, 22.7 | |
| Ohnesorge number, $Oh = \frac{\mu}{\sqrt{2\rho R_c \sigma}}$ | 0.136, 0.214 | |