

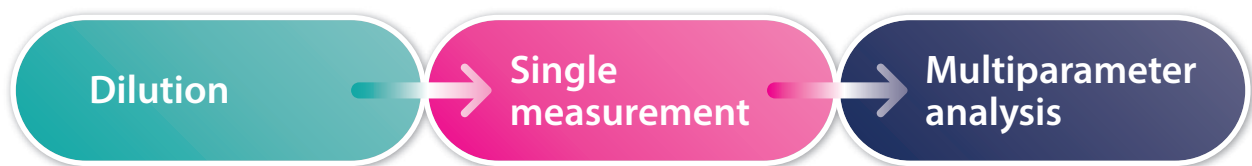
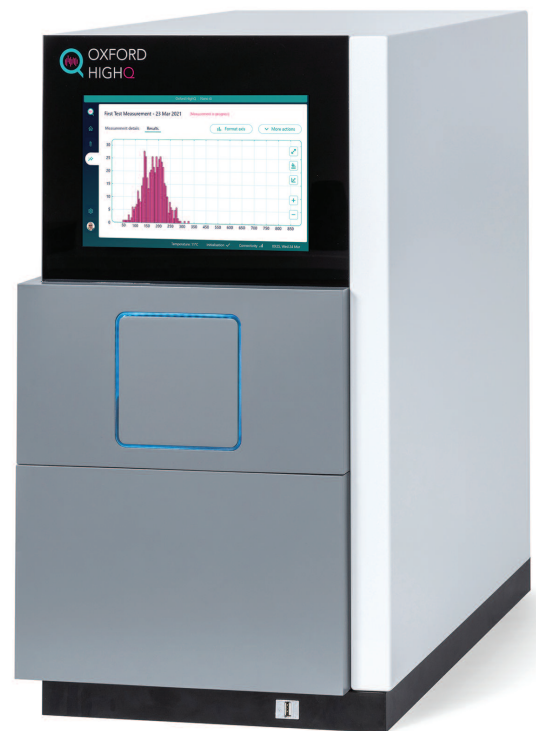
# Nano- $\alpha$ : Single Measurement. Multiple Insights.

## Nanoparticle characterisation made simple

The Nano- $\alpha$  is a revolutionary nanoparticle analyser which allows for multiparameter analysis in a single, direct, non-destructive measurement.

### Capabilities

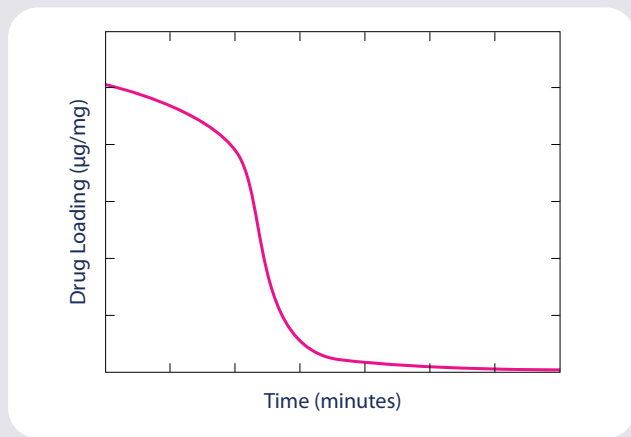
- Drug mass per particle, as a function of size
- Real-time drug-release profile
- Shell thickness and density
- Refractive index
- Size on a particle-by-particle basis
- Polydispersity index



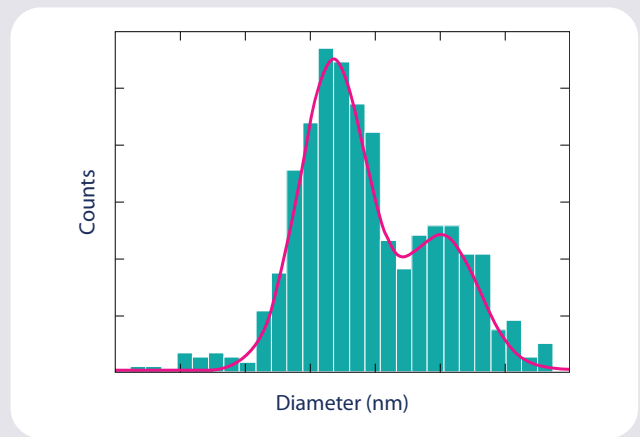
### Key benefits

- No method development
- Fast measurement time
- Any nanoparticle, any drug
- Measure in solution
- Small sample volume
- Non-destructive method
- Simple data interpretation
- Benchtop instrument

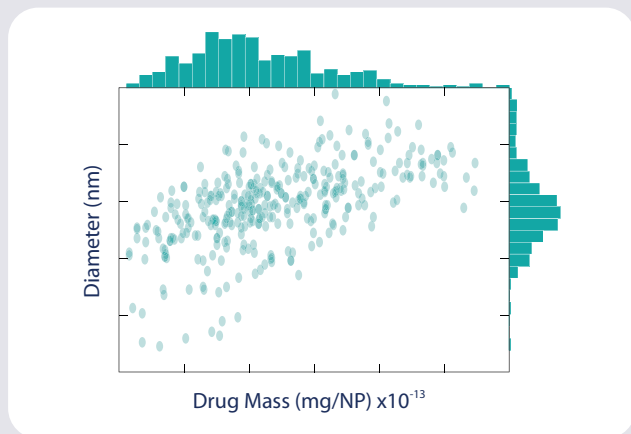
# Applications



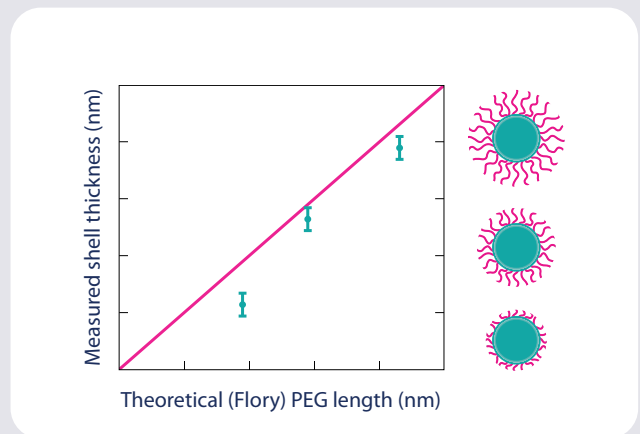
Drug release kinetics



Sizing distributions



Drug-loading distribution



Surface coatings

# Technical specifications

| Sample specifications <span>Q</span>   |  |
|--|--|
| Types of nanoparticles   | Liposomes, bio-particles, inorganic polymers, mesoporous particles |
| Solvents   | DI water, methanol, PBS buffer                                     |
| Minimum sample volume  | 250 µL   |
| Measurement specifications <span>Q</span>  |  |
| Full particle size/mass range <sup>1</sup>                                       | 50 nm – 400 nm   |
| Single particle size resolution ( $\Delta d/d$ )                                 | 10%  |
| Drug loading limit of detection <sup>2</sup> (DOXIL)                             | 4.1 x 10 <sup>-15</sup> mg/particle   1.2% (w/w)                   |
| Ensemble refractive index/mass/porosity resolution ( $\Delta X/X$ ) <sup>3</sup> | 1.2%   |
| Concentration range  | 10 <sup>10</sup> – 10 <sup>12</sup> particles per mL               |
| Instrument specifications <span>Q</span>   |  |
| Dimensions (W/D/H)   | 350 mm x 455 mm x 610 mm   |

<sup>1</sup> Depends on composition    <sup>2</sup> Measured over 200 events    <sup>3</sup> Measured over 500 events