Electronic Supplementary Information

Fabrication of the narrow size nano curcuminoids emulsion by combining phase inversion temperature and ultrasonication: preparation and bioactivity

Quang- Hieu Trana*, Thi Thanh- Ho Thuyb, Thanh-Tu Nguyenb

Fig S1. MS spectra of curcuminoids extracted from turmeric, Curcumin: (Cur), m/z = 367.11, $C_{21}H_{20}O_6$, Demethoxycurcumin (DMC): $C_{20}H_{18}O_5$, m/z = 339.22 and Bisdemethoxycurcumin (BDMC): $C_{19}H_{16}O_4$, m/z = 308.25.

- Fig S2. Size distribution of NCE-03
- Fig S3. Size distribution of NCE-03 after 30 days of storage
- Fig S4. Size distribution of NCE-03 after 60 days of storage
- Fig S5. Size distribution of NCE-01
- Fig S6. Size distribution of NCE-01 after 60 days of storage
- Fig S7. Size distribution of NCE-04 after 60 days of storage
- Fig S8. Size distribution of NCE-08
- Fig S9. Size distribution of NCE-08 after 60 days of storage
- Fig S10. Size distribution of NCE-05
- Fig S11. Size distribution of NCE-05 after 60 days of storage
- Fig S12. Zeta Potential of NCE-1
- Fig S13. Zeta Potential of NCE-3
- Fig S14. Preparation of Intestinal absorption test.

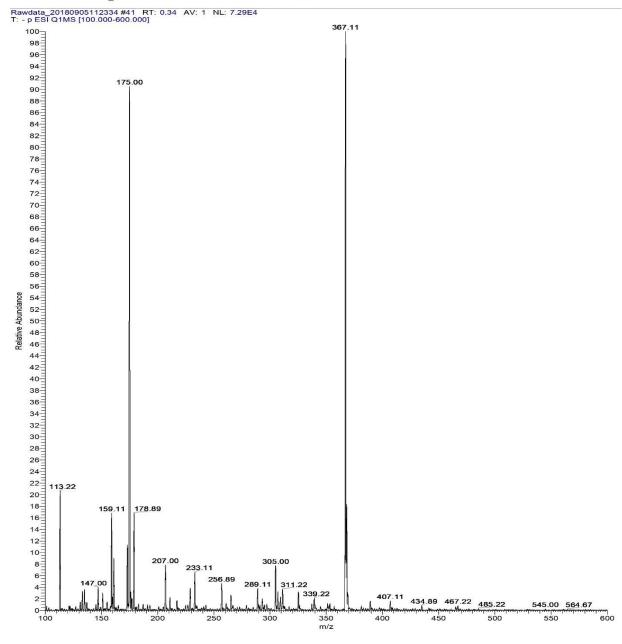


Fig S1. MS spectra of curcuminoids extracted from turmeric, Curcumin: (Cur), m/z = 367.11, $C_{21}H_{20}O_6$, Demethoxycurcumin (DMC): $C_{20}H_{18}O_5$, m/z = 339.22 and Bisdemethoxycurcumin (BDMC): $C_{19}H_{16}O_4$, m/z = 308.25.

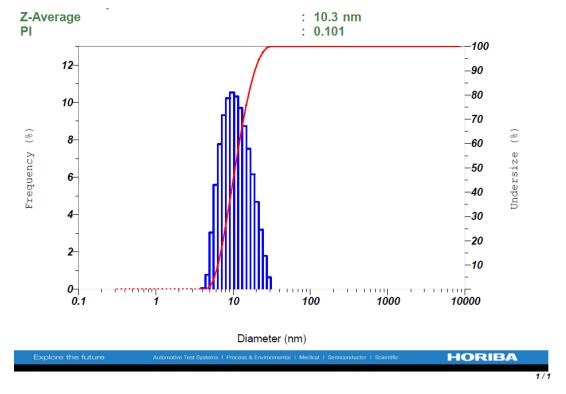


Fig S2. Size distribution of NCE-03

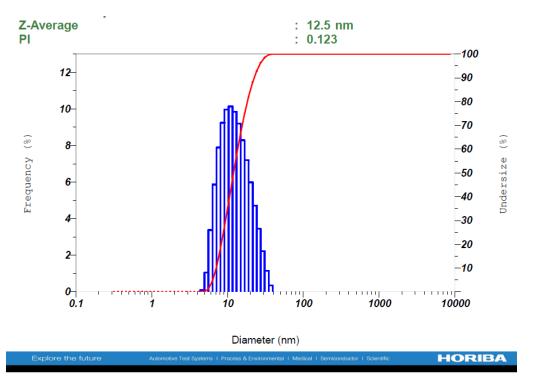


Fig S3. Size distribution of NCE-03 after 30 days of storage

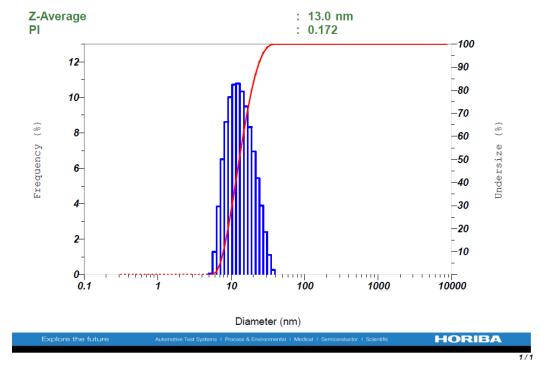


Fig S4. Size distribution of NCE-03 after 60 days of storage

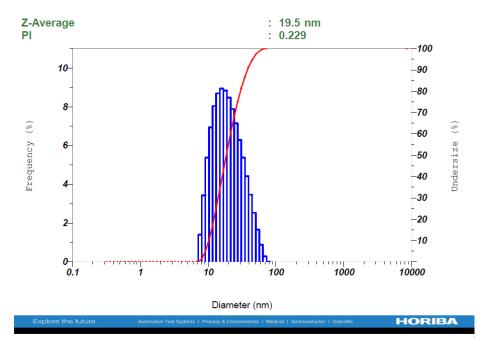


Fig S5. Size distribution of NCE-01

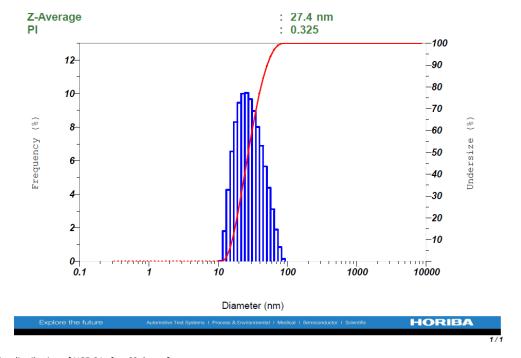


Fig S6. Size distribution of NCE-01 after 60 days of storage

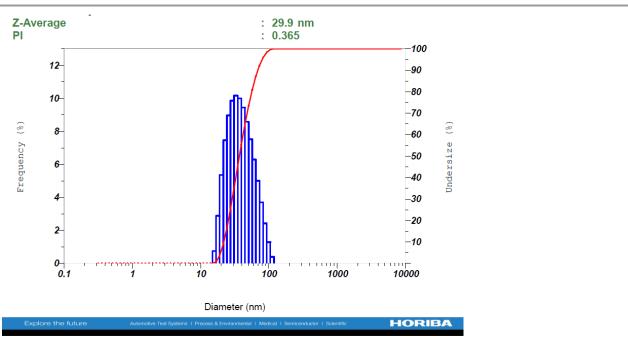


Fig S7. Size distribution of NCE-04 after 60 days of storage

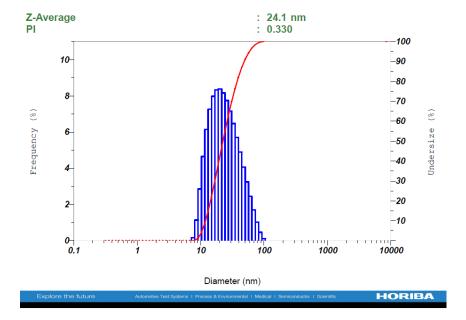


Fig S8. Size distribution of NCE-08

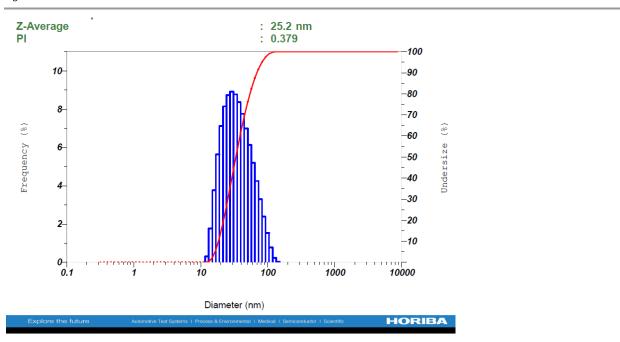


Fig S9. Size distribution of NCE-08 after 60 days of storage

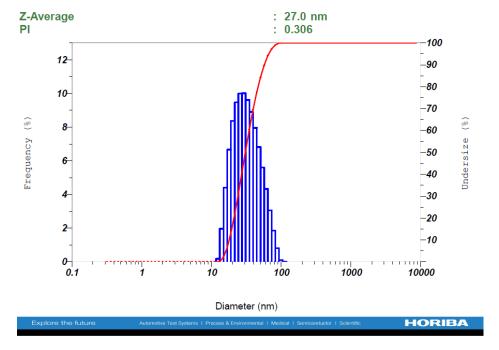


Fig S10. Size distribution of NCE-05

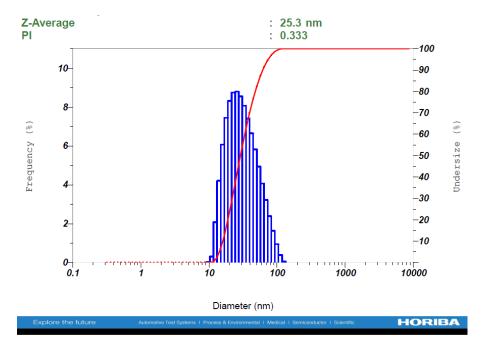


Fig S11. Size distribution of NCE-05 after 60 days of storage



SZ-100

Measurement Results

110-Zeta.nzt

Measurement Results

Date : Thursday, May 9, 2019 7:22:08 AM

Measurement Type : Zeta Potential

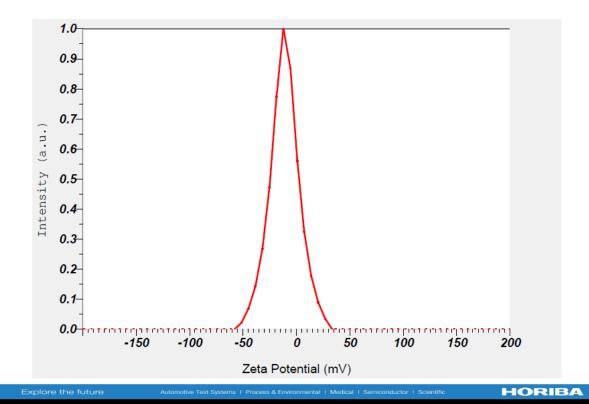
Sample Name : 110
Temperature of the Holder : 25.0 °C
Dispersion Medium Viscosity : 0.896 mPa·s
Conductivity : 0.076 mS/cm
Electrode Voltage : 3.8 V

Calculation Results

Peak No. Zeta Potential Electrophoretic Mobility 1 -11.2 mV -0.000087 cm2/Vs 2 --- mV --- cm2/Vs 3 --- mV --- cm2/Vs

Zeta Potential (Mean) : -11.2 mV

Electrophoretic Mobility Mean : -0.000087 cm²/Vs



SZ-100

Measurement Results

711-Zeta.nzt

Measurement Results

Date : Monday, September 30, 2019 10:40:59 AM

Measurement Type : Zeta Potential

Sample Name : 711
Temperature of the Holder : 24.9 °C
Dispersion Medium Viscosity : 0.897 mPa·s
Conductivity : 0.297 mS/cm

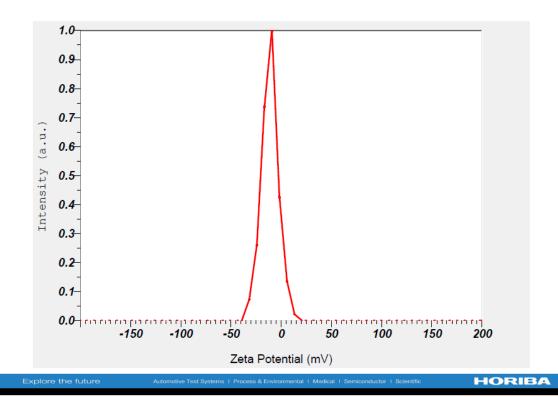
Electrode Voltage : 3.3 V

Calculation Results

| Peak No. | Zeta Potential | Electrophoretic Mobility |
|----------|----------------|--------------------------|
| 1 | -11.3 mV | -0.000088 cm2/Vs |
| 2 | mV | cm2/Vs |
| 3 | mV | cm2/Vs |

Zeta Potential (Mean) : -11.3 mV

Electrophoretic Mobility Mean : -0.000088 cm²/Vs



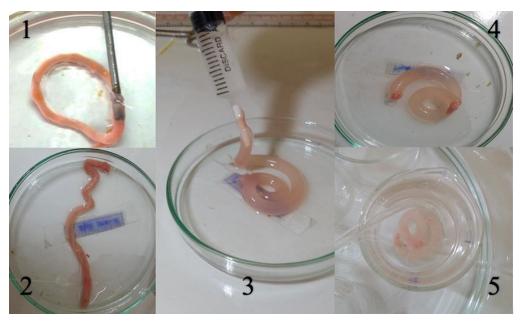


Fig S14. Preparation of Intestinal absorption test.