Supplementary

Cytotoxicity of NiO and Ni(OH)$_2$ Nanoparticles is Mediated by Oxidative Stress-induced Cell Death and Suppression of Cell Proliferation

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Figure S1. XRD spectra of (A) NiO and (B) Ni(OH)$_2$, with the (hkl) indicated above each peak.
Figure S2. XPS core levels of O 1s orbitals of NiO (left) and Ni(OH)$_2$ (right) nanoparticles.

Figure S3. Exemplary flow cytometry data in FCS Express 6. Ni(OH)$_2$ apoptosis analysis after 24h exposure to (A) 0 and (B) 100 μg/mL. Ni(OH)$_2$ cell cycle analysis after 24h exposure to (C) 0 and (D) 100 μg/mL.
Table S1. Point of Zero Charge.

| Nanoparticle | Initial pH | 1.16 | 1.94 | 2.96 | 3.89 | 4.64 | 6.2 | 6.81 | 6.8 | 8 | 9.4 | 10.83 | 11.83 | 12.56 |
|--------------|-----------|------|------|------|------|------|-----|------|-----|---|-----|--------|--------|--------|
| NiO          | Final pH  |      |      |      |      |      |     |      |     |   |     |        |        |        |
| Ni(OH)₂      |           | 1.53 | 3.47 | 6.04 | 8.34 | 8.59 | 8.72| 8.72 | 8.74| 8.8| 8.77| 9.75   | 11.75  | 12.7   |
|              |           | 1.32 | 4.86 | 7.14 | 7.85 | 7.89 | 7.91| 7.94 | 7.91| 8.8| 7.91| 8.28   | 11.72  | 12.73  |

Table S2. HepG2 Viability.

| Nanoparticle | Nanoparticle Concentration (µg/mL) | 0       | 10      | 25      | 50      | 75      | 100     |
|--------------|------------------------------------|---------|---------|---------|---------|---------|---------|
| NiO 24h      | 100.0 ± 0.0                        | 100.3 ± 1.9 | 103.2 ± 1.3 | 98.5 ± 0.7 | 102.2 ± 1.2 | 99.2 ± 2.5 |
| Ni(OH)₂ 24h  | 100.0 ± 0.0                        | 102.2 ± 1.4 | 103.9 ± 4.4 | 99.9 ± 2.1 | 98.9 ± 1.6 | 96.9 ± 1.6 |
| NiO 48h      | 100.0 ± 0.0                        | 107.3 ± 3.2 | 105.1 ± 0.9 | 101.3 ± 1.7 | 99.5 ± 1.9 | 93.7 ± 7.1 |
| Ni(OH)₂ 48h  | 100.0 ± 0.0                        | 93.8 ± 7.5  | 86.1 ± 13.1 | 86.1 ± 12.4 | 74.6 ± 11.1 | 72.1 ± 10.6 |

Data are expressed at the mean ± the SD.