

## Instructions for Dispersing NanoIntegris CNT Powders

### USE THESE INSTRUCTIONS IF:

You want to suspend our dry CNT powders in a particular solvent.

1. Bath sonicate the desired amount of NanoIntegris CNT powder in the desired solvent for 15-60 minutes, or until the CNT cake has visibly dissolved.
2. (Optional). To individually suspend the nanotubes in the solvent (i.e., to exfoliate the CNT bundles), use additional horn sonication.

### Frequently Asked Questions

**Q** Can I suspend the CNTs in water?

**A** CNTs are naturally hydrophobic. As such, surfactants must be used to disperse them in aqueous solution. Common ionic surfactants include sodium dodecyl sulfate (SDS), sodium cholate (SC), and sodium deoxycholate (SDOC).

**Q** What organic solvents can I use to suspend the CNTs?

**A** Researchers have reported dispersing CNTs in the following common solvents:

- 1,2-Dichlorobenzene (DCB)
- Methanol
- Acetone
- Chloroform
- N-methyl-pyrrolidone (NMP)
- Dimethylformamide (DMF)

**Q** How soluble are the CNTs in solvent X?

**A** For more information on the solubility limits of CNTs in common solvents, see:

[Bahr et al, \*Chemical Communications\* 2001, p193-194.](#)