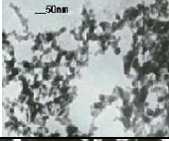

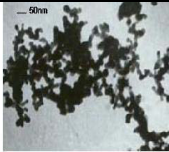
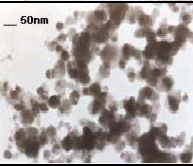
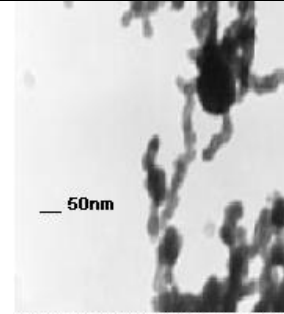
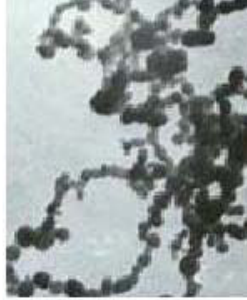
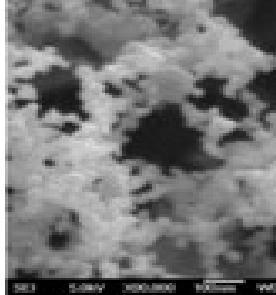
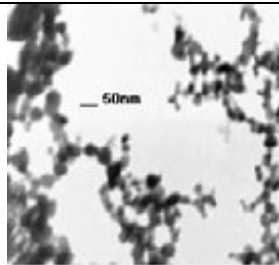
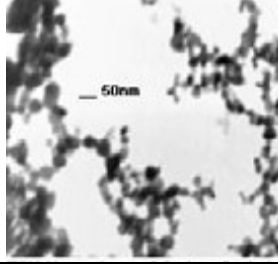

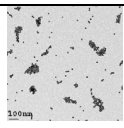
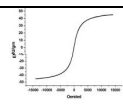
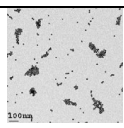


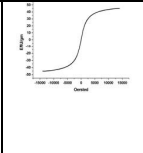
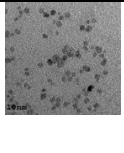
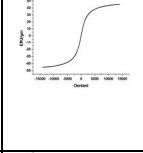
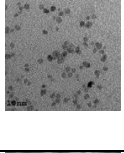
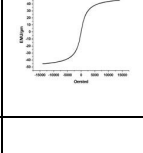
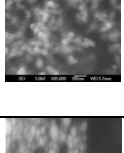
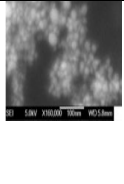
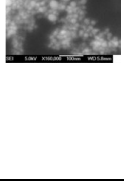
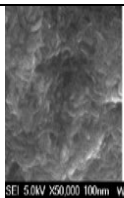
METAL NANOPOWDERS

| DESCRIPTION | AV SIZE | SIZE RANGE | SPECIFIC SURFACE AREA | OTHER INFO | TEM/SEM | PARTICLE SIZE DISTRIBUTION | MAGNET I CCURVE | PRICE(in Rs.) |
|-------------------------------|---------|------------|---------------------------|------------|--|----------------------------|-----------------|---------------|
| Aluminum | 18 nm | 2-50 nm | 40 - 60 m ² /g | n/a |  | | | |
| Cobalt | 28 nm | 2-60 nm | 40 - 60 m ² /g | Spherical |  | | | |
| Copper | 25 nm | 2-60 nm | 30 - 50 m ² /g | Spherical |  | | | |
| Copper (Carbon Coated) | 25 nm | 2-60 nm | 30 - 50 m ² /g | Spherical |  | | | |
| Iron (Carbon Coated) | 25 nm | 2-60 nm | 40 - 60 m ² /g | Spherical |  TEM Macrophage of Carbon Nanoparticles | | | |
| Iron | 25 nm | 2-58 nm | 40 - 60 m ² /g | Spherical |  | | | |
| Nickel | 20 nm | 2-50 nm | 40 - 60 m ² /g | Spherical |  | | | |

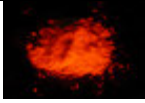
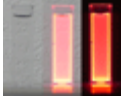
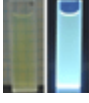







| | | | | | | | | |
|-------------------------------|-------|----------|--------------|-----------|--|--|--|--|
| Nickel (Carbon Coated) | 20 nm | 2-50 nm | 40 - 60 m2/g | Spherical |  | | | |
| Silver | 35 nm | 2-100 nm | 30 - 50 m2/g | Spherical |  | | | |

DISPERSIONS: PLEASE CONTACT US FOR A QUOTE IF YOU NEED A DISPERSION OTHER THAN THOSE LISTED BELOW. ALL OUR NANOTUBES ARE AVAILABLE AS 1.6 WEIGHT DISPERSIONS . ALL DISPERSIONS HAVE A \$150 MINIMUM ORDER.

| DESCRIPTION | AV SIZE | SIZE RANGE | DISPERSION | MORPHOLOGY | COLOR | OTHER | TEM/SEM | Price(in Rs.) |
|--|---------|-----------------------|---|-------------------|-----------------|---|---|---------------|
| Aligned MWNT Aqueous Dispersion (1.6 Wt %, 10-20 nm OD) | | 10-20 nm OD | Aqueous Solution with Non-Ionic Surfactant | | Black | Storage Temperature: 2~8 degrees C |  | |
| Gold Colloid Aqueous Suspension, 0.02% wt | 15 nm | 11~18 nm Monodisperse | Aqueous Suspension Au amount: 0.02%, <0.1% Sodium citrate as stabilizer | Roughly Spherical | Red, non-fading | |  | |
| Cobalt Aqueous Dispersion | 28 nm | 2-60 nm | Aqueous Solution with Non-Ionic Surfactant | Spherical | Black and grey | | | |
| Copper Aqueous Dispersion (1.85 wt %) | 25 nm | | Aqueous Solution with Non-Ionic Surfactant | | | | | |
| Copper Aqueous Dispersion (Carbon Coated, 1.8 wt %) | 25 nm | | Aqueous Solution with Non-Ionic Surfactant | | | | | |
| FerroFluid Fe3O4 Aqueous Colloid, 5 mg/ml | 6 nm | | Aqueous Suspension Fe3O4 amount: 0.5% | Roughly Spherical | Black |  |  | |

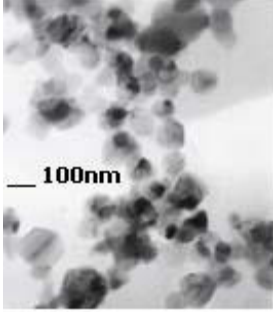



| | | | | | | | | |
|--|-----------|-------------|--|-------------------|----------------|---|---|--|
| FerroFluid Fe3O4 Aqueous Colloid, 25 mg/ml | 6 nm | | Aqueous Suspension Fe3O4 amount: 2.5% | Roughly Spherical | Black |  |  | |
| FerroFluid Fe3O4 Aqueous Colloid, 50 mg/ml | 6 nm | | Aqueous Suspension Fe3O4 amount: 5% | Roughly Spherical | Black |  |  | |
| FerroFluid Fe3O4 Aqueous Colloid, 100 mg/ml | 6 nm | | Suspension Fe3O4 amount: 10% | Roughly Spherical | Black |  |  | |
| Iron Aqueous Dispersion (Carbon Coated, 2.9 wt%) | 25 nm | 5-60 nm | Aqueous Solution with Non-Ionic Surfactant | Spherical | | |  | |
| Nickel Aqueous Dispersion (1.85 wt %) | 20 nm | 2-50 nm | Aqueous Solution with Non-Ionic Surfactant | | | |  | |
| Nickel Aqueous Dispersion (Carbon Coated 1.85 wt %) | 20 nm | 2-50 nm | Aqueous Solution with Non-Ionic Surfactant | | | | | |
| Silicon Carbide(SiC) Aqueous Dispersion(1.6 wt %) | | | Aqueous Solution with Non-Ionic Surfactant | | | | | |
| Silver Aqueous Dispersion (1.6% wt., Av. Size 35 nm) | 35nm | 2-100 nm | Aqueous Solution with Non-Ionic Surfactant | Spherical | Black and Grey | | | |
| Short-MWNT Aqueous Dispersion (1.6 Wt %, 10-20 nm OD) | | 10-20 nm OD | | | Black | |  | |
| SWNT Aqueous Dispersion (1.6 Wt %, < 2 nm OD) | < 2 nm OD | | Aqueous dispersion with non-ionic surfactant | | Black | | | |


PHOSPHORDOTS: CADMIUM-FREE QUANTUM DOTS

| DESCRIPTION | EXCITATION | EMISSION | AVERAGE SIZE | DISPERSION | PICTURE | CONCENTRATION | STORAGE | PRICE(in Rs.) |
|---|------------|--------------------|--------------|---------------------------------------|---|-------------------------------|-------------------------------|---------------|
| Europium Doped Yttrium Oxide Powder | | | 10 nm | n/a |  | n/a | Refrigerate but do not freeze | |
| Europium Doped Yttrium Vanadate Colloid | 350 nm | 620 nm | 10 nm | Solvent: H2O |  | 50mg/mL | Refrigerate but do not freeze | |
| Cerium Doped Yttrium Aluminum Garnet Colloid | 350-400 nm | 550 nm | 10 nm | Solvent: 1,4-butanediol |  | 0.15 - 0.35 g/cm ³ | Refrigerate but do not freeze | |
| Thulium Doped Yttrium Vanadate Colloid | 300 nm | 477 nm | 20-50 nm | <0.7mg/mL PVP |  | 0.2mg/mL | Refrigerate but do not freeze | |
| Samarium Doped Yttrium Vanadate Colloid | 300 nm | 568, 607, & 650 nm | 10 nm | Aqueous Colloid with Trace of Citrate |  | 50mg/mL | Refrigerate but do not freeze | |
| Samarium Doped Yttrium Vanadate Colloid | 300 nm | 568, 607, & 650 nm | 20-50 nm | <0.7mg/mL PVP |  | 0.2mg/mL | Refrigerate but do not freeze | |
| Dysprosium Doped m Vanad | 300 nm | 486& 576 nm | 10 nm | Aqueous Colloid with Trace of Citrate |  | 50mg/mL | Refrigerate but do not freeze | |
| Dysprosium Doped m Vanad | 300 nm | 486& 576 nm | 20-50 nm | <0.7mg/mL PVP |  | 0.2mg/mL | Refrigerate but do not freeze | |
| Europium Doped m Vanad | 300 nm | 620nm | 20-50 nm | <0.7mg/mL PVP |  | 0.2mg/mL | Refrigerate but do not freeze | |
| Erbium Doped m Vanad | 300 nm | 527 & 556 nm | 20-50 nm | Aqueous Colloid with Trace of Citrate |  | 10mg/mL | Refrigerate but do not freeze | |

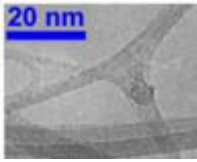
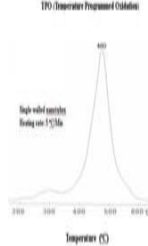
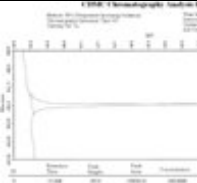

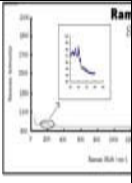
CERAMIC NANOPOWDERS


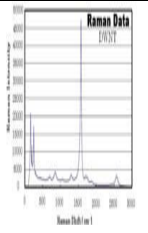
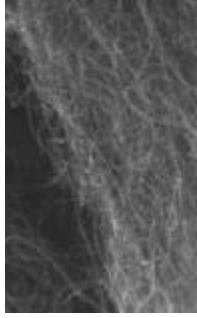
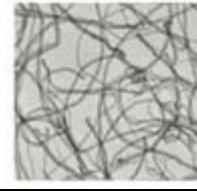
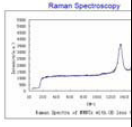

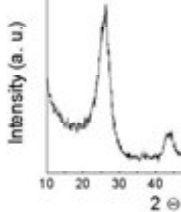
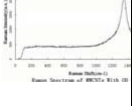
| DESCRIPTION | AVERAGE SIZE | SIZE RANGE | SPECIFIC SURFACE AREA | OTHER INFO | TEM/SEM | PRICE(in Rs.) |
|-------------|--------------|------------|-----------------------|------------|---------|---------------|
| | | | | | | |

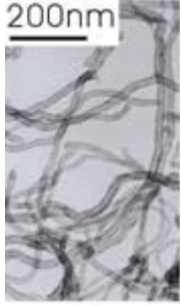
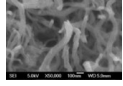
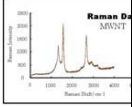
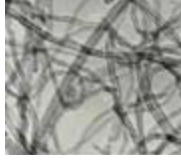
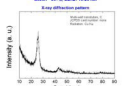
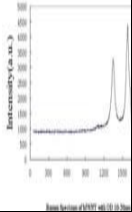
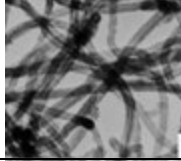
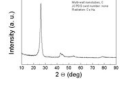
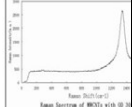
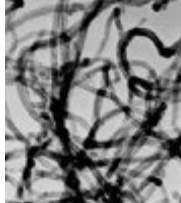
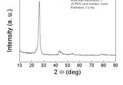
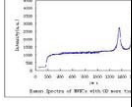
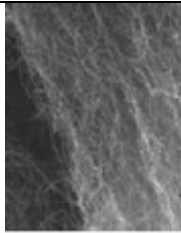
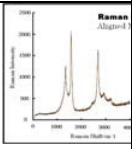
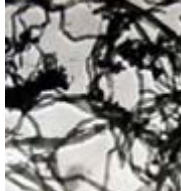
| | | | | | | |
|--|---|-----------|------------|--|--|--|
| Silicon Carbide-beta Powder | <50 nm | 40-50 nm | 60-80 m2/g | Nearly Spherical Crystallographic Form: Cubic |  TEM Macrophage | |
| Titanium Carbide | < 30 nm | | 90 m2/g | Nearly Spherical; Crystallographic Form: Cubic Dissociative Si: <0.4%, Oxygen Content: < 1.0% | | |
| Aluminum Nitride | <50 nm | 40-50 nm | > 75m2/g | Crystal Phase: Hexagonal, Effective duration: 24 months |  | |
| Silicon Nitride | ≤20 nm | 10-20 nm | > 115 m2/g | Amorphous Si3N4, Effective duration: 24 months |  | |
| Alpha Silicon Nitride - Whisker | Diameter <100 nm x Length 800 nm | n/a | >45 m2/g | Crystal: hexagonal, effective duration 24 months | | |
| Titanium Nitride | <15 nm | 10-20 nm | > 80 m2/g | Spherical, Crystallographic Form: FCC |  | |
| Aluminum Oxide | 60 nm | 60-100 nm | 180 m2/g | Gamma phase | | |
| Aluminum Oxide | 155 nm | >300 nm | 10 m2/g | Alpha phase | | |
| Ball Particle Silicon Oxide | 30 nm | 20-50 nm | 160 m2/g | UV Diffraction: > 75% | | |

| | | | | | | |
|---|---------|------------|--------------|---|---|--|
| Ball Particle Silicon Oxide Powder (Hydrophobic) | 30 nm | 20-50 nm | 205 m2/g | Particle surface treated with oil, highly dispersed | | |
| Multi-pore Silicon Oxide | 20 nm | 20-50 nm | 645 m2/g | n/a | | |
| Multi-pore Silicon Oxide (Hydrophobic) | 20 nm | 20-50 nm | 680 m2/g | Particle surface treated with oil, highly dispersed | | |
| Titanium Oxide (Anatase) | 5-10 nm | n/a | 215m2/g | Crystal phase: Anatase | | |
| Titanium Oxide (Rutile) | 50 nm | n/a | 35 m2/g | Crystal phase: Rutile | | |
| Zinc Oxide | 400 nm | 300-500 nm | 40 - 60 m2/g | n/a |  | |


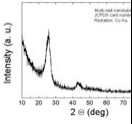
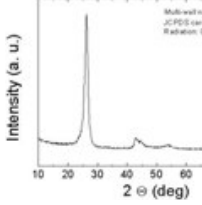
CARBON NANOTUBES: PLEASE NOTE ALL NANOTUBES ARE AVAILABLE AS 1.6 WEIGHT DISPERSIONS WITH \$150 MINIMUM ORDER

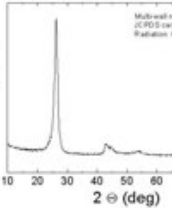
| DESCRIPTION | PURITY | ID | OD | LENGTH | SPECIFIC SURFACE AREA | OTHER INFO | TEM/SEM/TPO | XRD | RAMAN | PRICE(in Rs.) |
|---|--------|------------|--------|---------|-----------------------|---|--|---|---|---------------|
| SWNT Powder | 95% | 0.8-1.6 nm | 1-2 nm | 5-30 μm | >380 m2/g | Thermal conductivity ~ 4000W/mk |  |  | | |
| SWNT Powder | 90% | n/a | <2 nm | <20 μm | >450 m2/g | Thermal conductivity ~ 4000W/mk |  |  |  | |
| -OH Functionalized SWNT, 3.96 wt%) | 95% | 0.8-1.6 nm | 1-2 nm | 5-30 μm | >380 m2/g | -OH content: Surface carbon functional- | | | | |

| | | | | | | | | | | |
|--|-----|------------|----------|---------------|-------------|---|--|---|---|--|
| | | | | | | ization ratio: 8-10 mol% | | | | |
| -COOH Functionalized SWNT, 2.73wt%) | 95% | 0.8-1.6 nm | 1-2 nm | 5-20 μ m | >380 m2/g | -COOH content : Surface carbon functionalization ratio: 8-10 mol% | | | | |
| Short SWNT | 95% | 0.8-1.6 nm | 1-2 nm | 1-3 μ m | >380 m2/g | n/a | | | | |
| -COOH Functionalized Short SWNT | 90% | 0.8-1.6 nm | 1-2 nm | 0.5-2 μ m | >380 m2/g | -COOH Content: 2.73% wt | | | | |
| DWNT Powder | 90% | 1-2 nm | < 3 nm | < 20 μ m | >450 m2/g | DWNTs: > 60%, Amorphous carbon: < 5%, Ash (catalyst residue): < 3% Thermal conductivity ~ 4000W/m k |  |  | | |
| Aligned MWNT Powder | 95% | n/a | 10-20 nm | 5-15 μ m | 40-300 m2/g | Amorphous carbon: <3%, Ash (catalyst residue): <0.2% Thermal conductivity ~ 2000W/m k |  | | | |
| MWNT Powder | 95% | 2-5 nm | < 8 nm | 10-30 μ m | >500 m2/g | |  |  | | |
| MWNT Powder | 95% | 3-5 nm | 8-15 nm | ~50 μ m | >233 m2/g | C 99.76%, Al .03%, Cl .09%, S .12% |  |  |  | |

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|------------------------------|-----|---------|----------|---------------|--------------------------|--|--|---|---|--|
| MWNT Powder | 95% | 5-10 nm | 10-20 nm | 0.5-2 μ m | 40-300 m ² /g | Amorphous carbon: <3%, Ash (catalyst residue): <0.2% |  |  |  | |
| MWNT Powder | 95% | 5-10 nm | 10-20 nm | 10-30 μ m | >200 m ² /g | C 99.8%, Cl 0.2% Electrical conductivity > 100 s/cm |  |  |  | |
| MWNT Powder | 95% | 5-10 nm | 20-30 nm | 10-30 μ m | >110 m ² /g | C 98.39%, Cl 0.45%, Fe 0.23%, Ni 0.93% Electrical conductivity > 100 s/cm | | | | |
| MWNT Powder | 95% | 5-12 nm | 30-50 nm | 10-20 μ m | >60 m ² /g | Electrical conductivity > 100 s/cm |  |  |  | |
| MWNT Powder | 95% | 5-15 nm | >50 nm | 5-15 μ m | >40 m ² /g | Amorphous carbon: <3%, Ash (catalyst residue): <0.2% Electrical conductivity > 100 s/cm |  |  |  | |
| Aligned MWNT Powder | 95% | n/a | 10-20 nm | 5-15 μ m | 40-300 m ² /g | Amorphous carbon: <3%, Ash (catalyst residue): <0.2% Electrical conductivity > 100 s/cm |  | |  | |
| Industrial Grade MWNT | 85% | 5-10 nm | 10-30 nm | 10-30 μ m | >200 m ² /g | n/a |  | | | |
| Industrial Grade | 85% | 5-10 nm | 20-40 nm | 10-30 μ m | >110 m ² /g | n/a | | | | |

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|----------------------------------|-----|---------|----------|----------|--------------------------|---|--|--|--|--|
| MWNT | | nm | nm | μm | | | | | | |
| Short MWNT | 95% | 2-5 nm | < 10 nm | 1-2 μm | 40-300 m ² /g | n/a | | | | |
| Short MWNT | 95% | 5-10 nm | 10-20 nm | 1-2 μm | 40-300 m ² /g | n/a | | | | |
| Short MWNT | 95% | 5-10 nm | 20-30 nm | 1-2 μm | >110 m ² /g | n/a | | | | |
| Short MWNT | 95% | 5-12 nm | 30-50 nm | 0.5-2 μm | >60 m ² /g | n/a | | | | |
| Short MWNT | 95% | 5-15 nm | >50 nm | 1-2 μm | >40 m ² /g | n/a | | | | |
| -COOH Functionalized MWNT | 95% | 2-5 nm | < 8 nm | 10-30 μm | >500 m ² /g | Surface carbon functionalization ratio: 8-10 mol%, weight percentage 3.86 wt% | | | | |
| -COOH Functionalized MWNT | 95% | 5-10 nm | 10-20 nm | 10-30 μm | >200 m ² /g | Surface carbon functionalization ratio: 8-10 mol%, weight percentage 2.0 wt% | | | | |
| -COOH Functionalized MWNT | 95% | 5-10 nm | 20-30 nm | 10-30 μm | >110 m ² /g | Surface carbon functionalization ratio: 8-10 mol%, weight percentage 1.23 wt% | | | | |
| -COOH Functionalized MWNT | 90% | 5-15 nm | 30-50 nm | 10-20 μm | >60 m ² /g | Surface carbon functionalization ratio: 8-10 mol%, weight percentage | | | | |

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|---|-----|------------|----------|----------|------------------------|---|--|--|---|--|
| | | | | | | 0.73 wt% | | | | |
| -COOH Functionalized MWNT | 95% | 5-15 nm | >50 nm | 10-20 μm | >40 m ² /g | Surface carbon functionalization ratio: 8-10 mol%, weight percentage 0.49 wt% | | | | |
| -COOH Functionalized Short SWNT | 95% | 0.8-1.6 nm | 1-2 nm | 0.5-2 μm | >380 m ² /g | -COOH Content: 2.73% wt | | | | |
| -OH Functionalized MWNT, C 97.46% Al 0.19% Cl 1.02%, Co 1.09%, S 0.24% | | 2-5 nm | < 8 nm | 10-30 μm | >500 m ² /g | carbon functionalization ratio: 20-26 mol%, weight percentage 1-7wt% |  | |  | |
| -OH Functionalized MWNT, C 99.8%, CL .2% | | 5-10 nm | 10-20 nm | 10-30 μm | >200 m ² /g | Surface carbon functionalization ratio: 20-26 mol%, weight percentage 1-7wt% | | | | |
| -OH Functionalized MWNT, C 98.39% Cl .45%, Fe .23%, Ni .93% | 95% | 5-10 nm | 20-30 nm | 10-30 μm | 110 m ² /g | n/a | | | | |
| -OH Functionalized MWNT, C 97.37%, Cl 0.2%, Fe .55%, Ni 1.86%, S .02% | 95% | 5-15 nm | 30-50 nm | 10-20 μm | 60 m ² /g | Surface carbon functionalization ratio: 20-26 mol%, weight percentage 1-7wt% |  | | | |

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|--|-----|---------|--------|---------------|----------------------|--|--|--|--|--|
| -OH Functionalized MWNT, C 97.37%, Cl 0.2%, Fe .55%, Ni 1.86%, S .02% | 95% | 5-15 nm | >50 nm | 10-20 μ m | 40 m ² /g | Surface carbon functionalization ratio: 20-26 mol%, weight percentage 1-7wt% |  | | | |
|--|-----|---------|--------|---------------|----------------------|--|--|--|--|--|