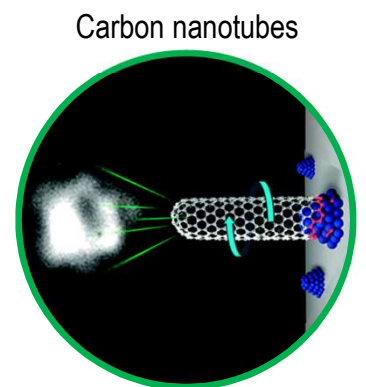
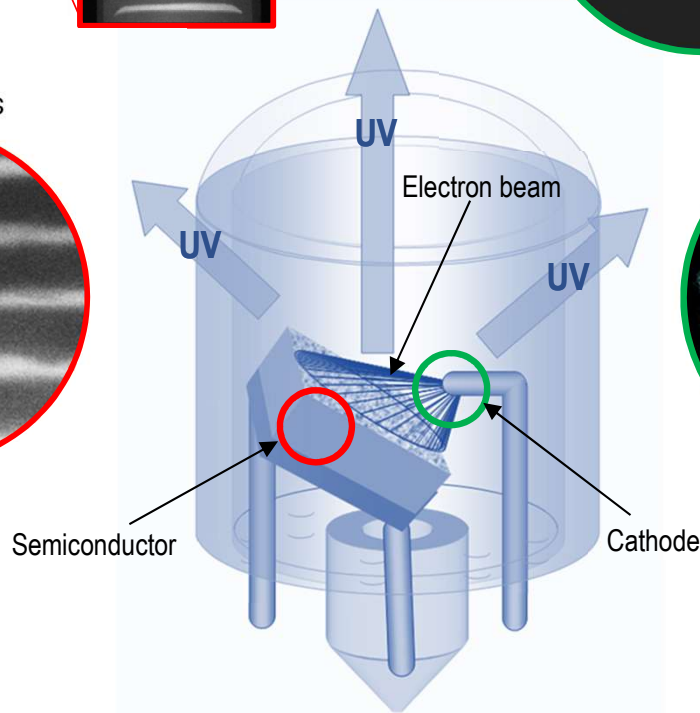
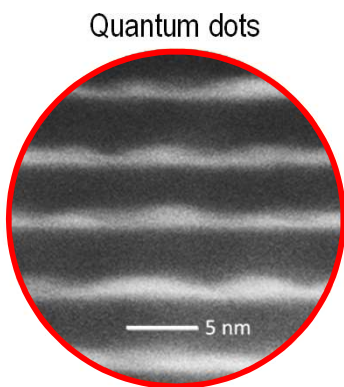
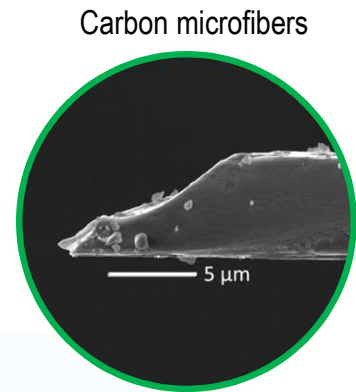
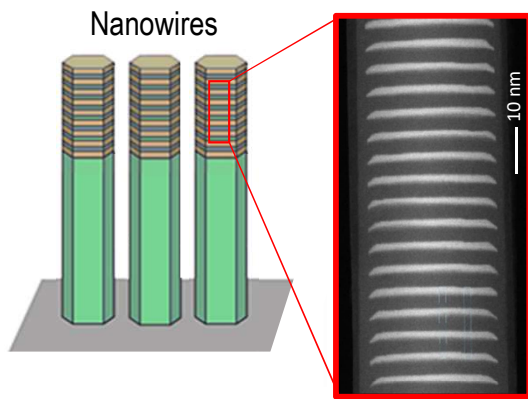


Developing UV technologies for disinfection



The *Peaple lamp* concept merges complementary expertise in:

- Fabrication of aluminum nitride based quantum dots and nanowires emitting in the UV range.
Interdisciplinary Research Institute of Grenoble and Institut Néel
- Design of electron emitters that incorporate carbon microfibers and nanotubes.
Institut Lumière Matière

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SPECIFICATIONS FOR DISINFECTION

- Emission range: 220-320 nm
- Higher efficiency for most pathogens in the 250-270 nm range
- Only the 220-230 nm range is harmless for humans

EXISTING TECHNOLOGIES

- Mercury lamp: poisonous, harmful for the environment, slow switching
- UV LED: mW power, wall plug efficiency < 1%, approx. \$100 per lamp

ADVANTAGES OF PEAPLE

- Environmentally friendly technology based on aluminum nitride
- Spectrally tunable by design, from 360 nm (UVA) to 220 nm (UVC)
- Rapid switching
- Expected efficiency ≈15%