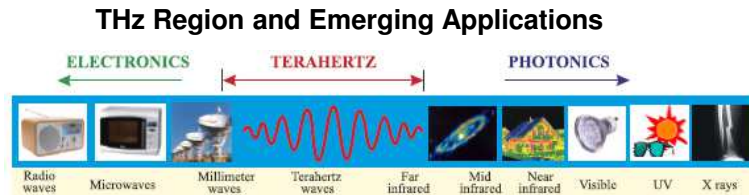


Roll-to-Roll Fabricated THz Sensors

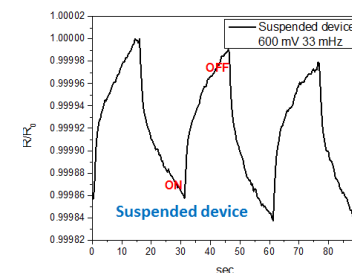
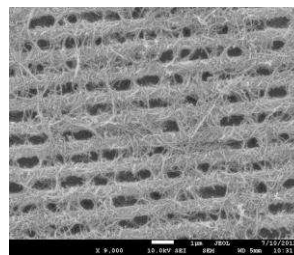
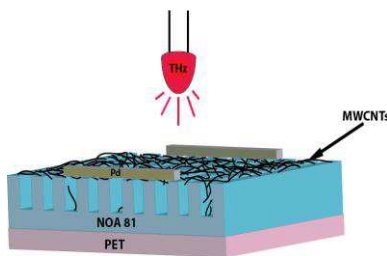


Significant THz Applications

- Medical Imaging – Cancer detection
- Explosive detection
- Astronomy
- Non invasive – Security scanning in Airports
- Large-scale integrated circuit testing
- Information and communication technology - wireless – 40 Gbit/s
- Weather monitoring

CHM Test Bed Results:

- Developed a new method for the production of low cost, sensitive, room temperature THz detectors on a R2R platform.
- Only suspended CNT devices registered THz detection.
- Detection sensitive to bias voltage and thickness of MWNT films.
- Fabrication processes are completely adaptable to R2R platform.
- Work envisions a potential merging of nanoimprint technologies and THz technologies for the scale up and advancement of emerging THz applications.



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