



# Precision Manufacturing of Carbon Porous Structures at Multiple Scales

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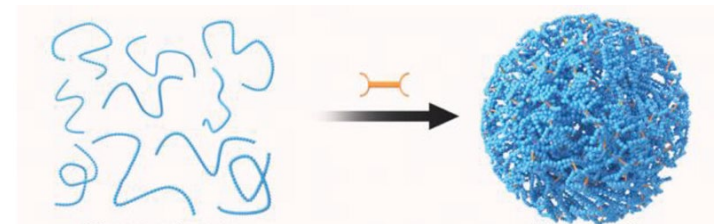
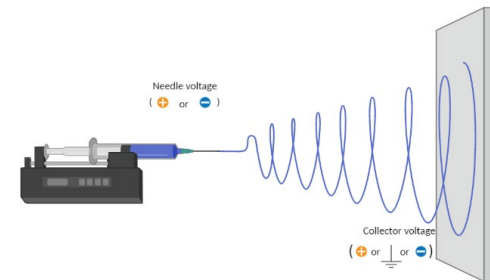
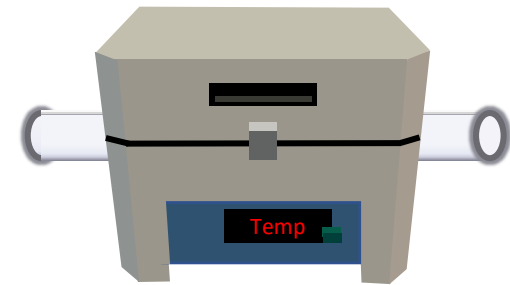
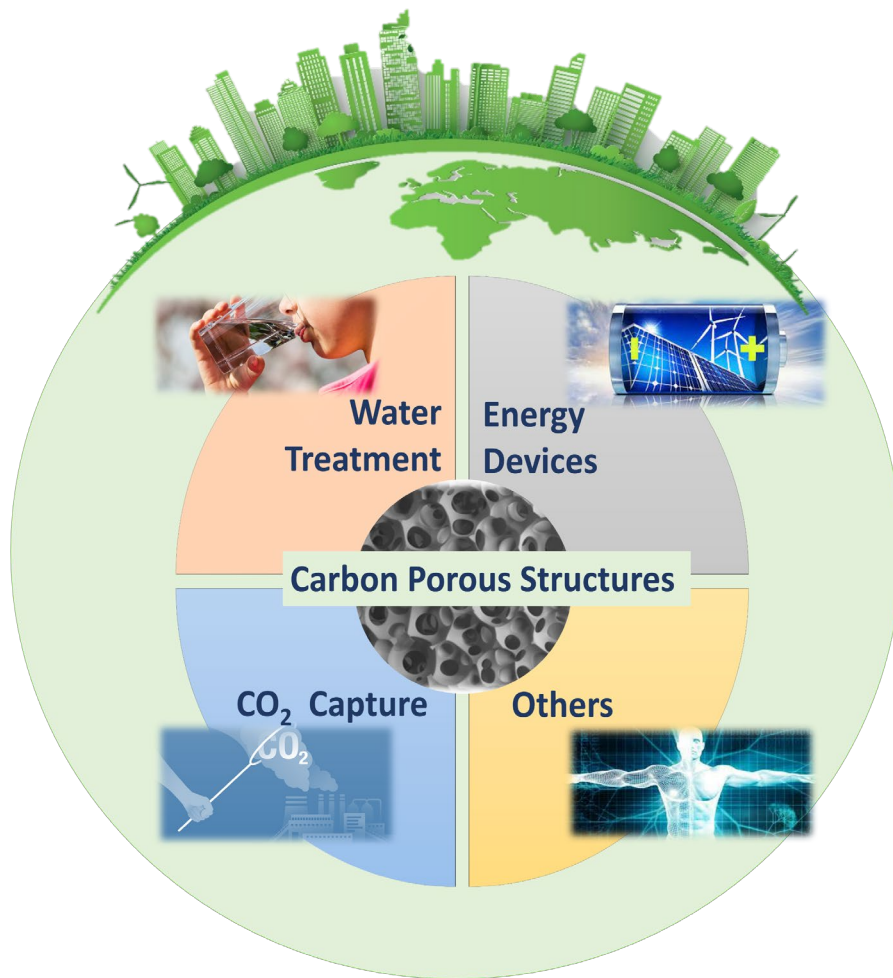
Assistant Professor

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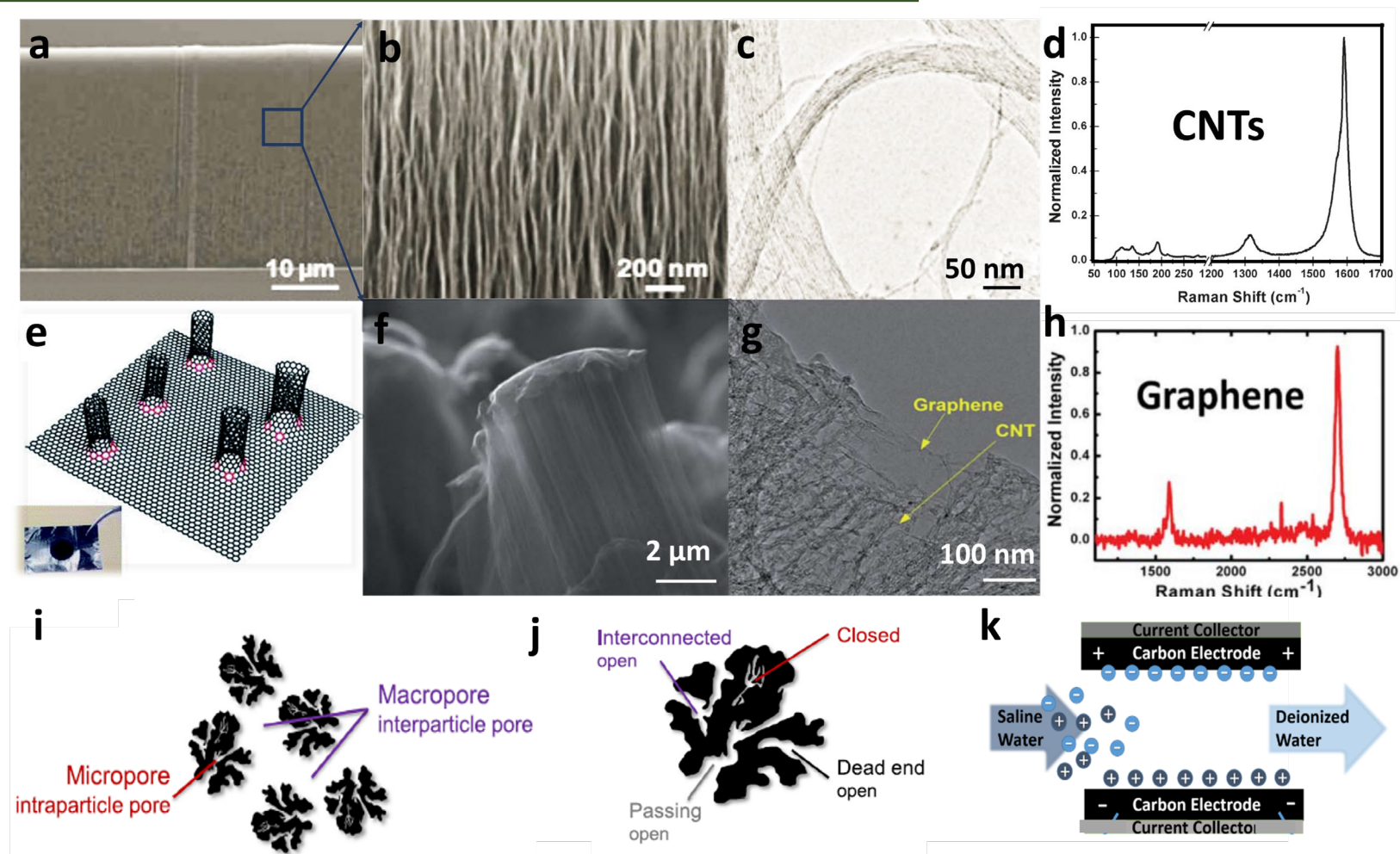
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# Carbon porous structures (CPS)



# Limitations on CPS manufacturing

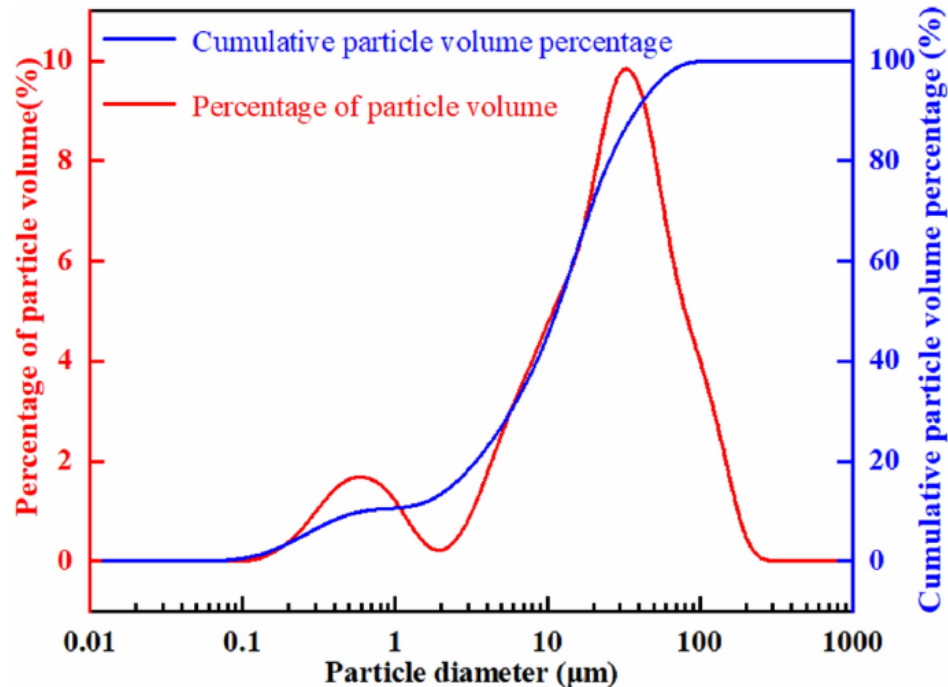


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 P. Dong, et. al, ACS Applied Materials & Interfaces 2011, 3 (8), 3157-3161  
 P. Dong, et. al, Journal of Physical Chemistry C 2014, 118 (45), 25863-25868

**Ineffective pores**

# CPS with specified porous structure

- Morphology & cost
- Pore size distribution



# Precision Manufacturing of CPS

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- Microstructure
  - Scaffold
  - Structure enrichment and control
- Nanostructure
  - Nanostructure creation
  - Structure enrichment and control
- Interface & others



A stylized illustration of a green landscape. In the foreground, there are three white wind turbines with three blades each, standing on a green hill. To the right, there is a small house with a white roof and a blue door. The background features several light blue clouds and a few small trees. The overall style is clean and modern.

**Thank you for your time!**

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