

# Materials Science from a “Nano” perspective

Paul Franklyn  
School of Chemistry, University of the Witwatersrand  
Email: [Paul.Franklyn@wits.ac.za](mailto:Paul.Franklyn@wits.ac.za)



Materials Science – Paul Franklyn – Slide 1



## Two separate fields? Or rebranding for specialisation?

- Materials science
  - Crudely: the study of the properties, characteristics and structural composition of any given substance
  - Typically: with the intention of finding applications for its use.
- Nanoscience
  - Crudely: the study of the properties, characteristics and structural composition of any given substance having structures with at least one dimension less than 100nm
  - Typically: with the intention of finding applications for use where being smaller is better.
- Properties of interest: Optical, catalytic, thermal, electrical, magnetic, strength, hardness, colour.



Materials Science – Paul Franklyn – Slide 2









