



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

- PQI 3203 Fenômenos de Transporte I

Ardson dos Santos Vianna Júnior - ASVJ

e-mail: ardson@usp.br



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

Aula 15 – Evolução da ciência das partículas

PQI 3203 Fenômenos de Transporte

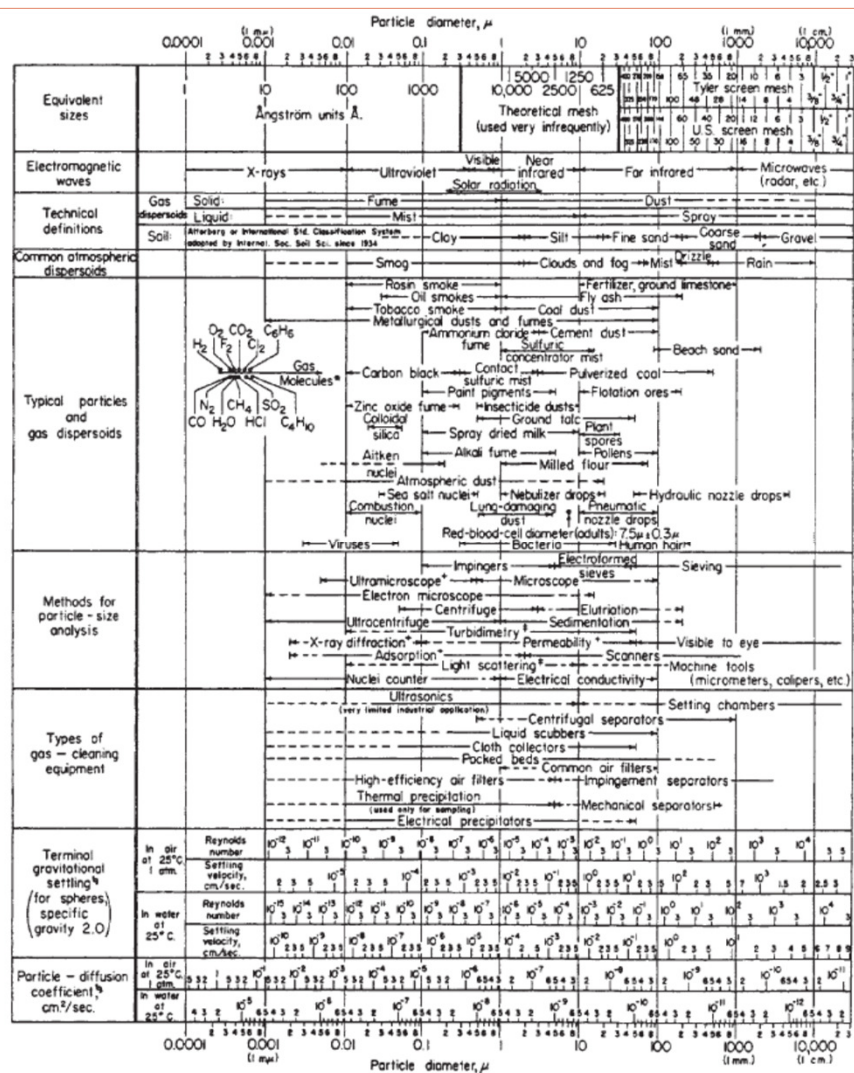
1 Planejamento

1. Evolução
 1. Nano partículas
 2. Células biológicas
2. Conclusão

Evolução

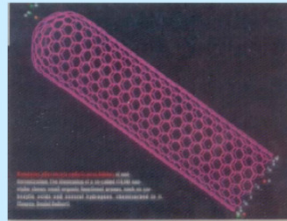
- Particle Science and technology
- <http://perc.ufl.edu/>
- Nanopartículas
- Células biológicas

Faixas

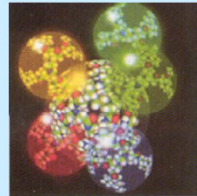


Nanopartículas

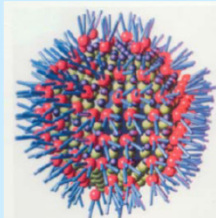
- Slide 54 – R. Davies
- PARTICLE ENGINEERING
RESEARCH CENTER AT
THE UNIVERSITY OF FLORIDA



CARBON NANOTUBES
R&D MAGAZINE JUNE 1999

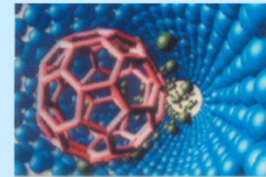


“TECTODENDRIMERS”
CHEM.ENG.G.PROG. NOV. 2003



QUANTUM DOTS

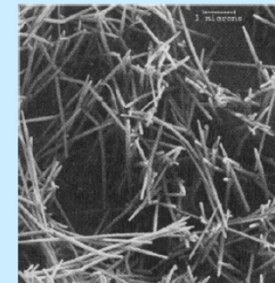
NANO-DEVELOPMENTS



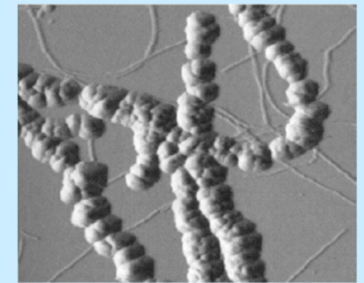
BUCKEY BALLS
OAK RIDGE NATIONAL
LABORATORY REVIEW



NANOPARTICLE DRUG
DELIVERY CAPSULES”
CHEM.ENG.G.PROG. NOV 2003



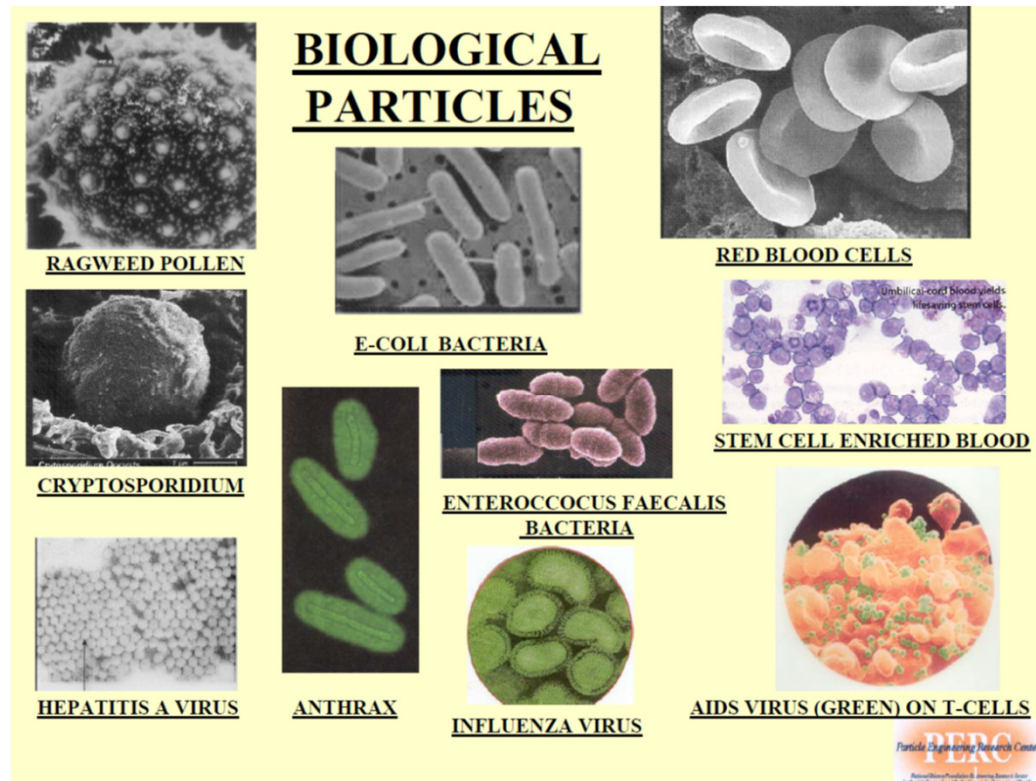
“NANOWIRES”
TECHNOLOGY REVIEW
OCTOBER 2003



PROTEIN-BASED.GOLD & SILVER
NANOWIRES
TECHNOLOGY REVIEW JUNE 2003

Células biológicas

Slide 55



Partículas

- The first is the interfacial properties of particulate systems.
- The second quality is that materials in particulate form (e.g. powders, slurries, droplets, emulsions) can often be handled, transported and processed with greater ease and economy than the same materials in bulk forms.
- The third quality arises, as particles get so small that their size approaches molecular dimensions.

6 Conclusões



Balanço de forças – F_R : sedimentação, fluidização e elutriação



Do laminar ao turbulento



Diversas correlações



Resultados diferentes – relações empíricas

Bibliografia

- <http://perc.ufl.edu/>