

USANS (Ultra Small Angle Neutron Scattering)

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KIST-USANS (Ultra Small Angle Neutron Scattering) is used to determine micro & meso size.

Model

KIST-USANS

Specifications

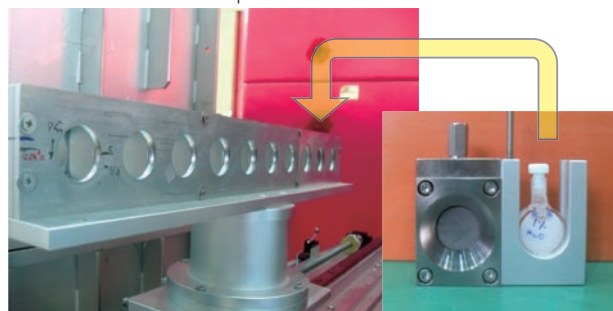
- Radiation source : Cold neutron
- Neutron flux : $\sim 1.2 \times 10^7$ #/(cm²sec)
- Wavelength (λ): 4 Å ($\Delta\lambda/\lambda = 2.5\%$)
- Energy : 5 meV (43 cm⁻¹)
- Resolution (Qmin) : 1.9×10^{-5} Å⁻¹
- Monochromator and analyzer : Si (111)
- Size : 0.1 ~ 20 μm
- Sample diameter : > ~ 1.7 cm

Applications

- Soft matters : Polymers, biomaterials, solutions
- Hard matters : Metals, ceramics, cements
- Morphology : Shape, cluster, aggregations, fractals, hierarchy, interface, dispersion, pores
- Structures from micron to submicron
- Sample : Solids, liquids, transparent, opaque

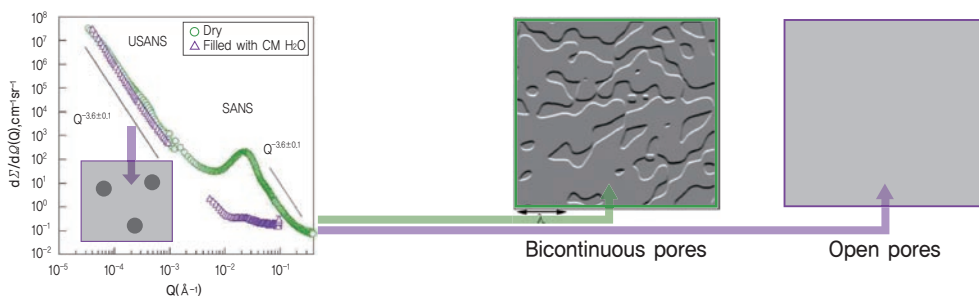


10-Position sample holder

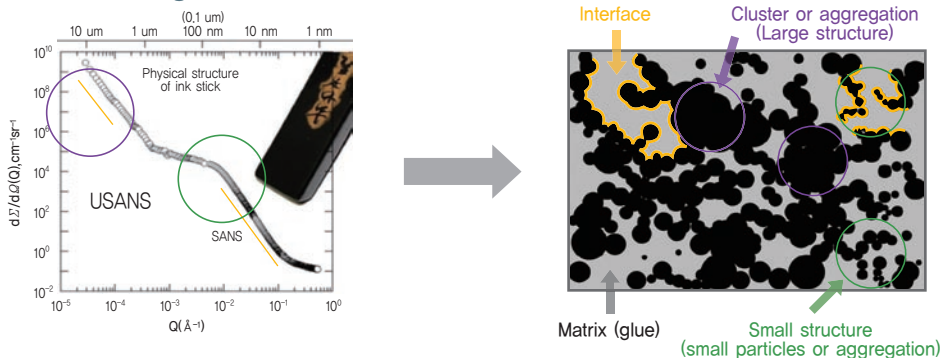


Powder and liquid cells

Open and closed pores



Aggregate and clustering of soot



Location KAERI neutron guide hall Tel.042-868-4602