

Biofluid Mechanics Research Lab Equipment

۱) PTV Particle Tracking Velocity meter setup;
SIEMENS®
For flow behavior visualization in microscale

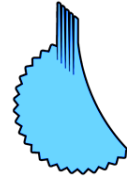
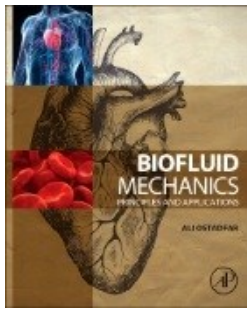






۲) Permanent magnet setup;
Used in magnetic drug targeting studies

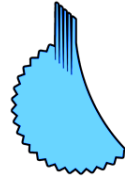
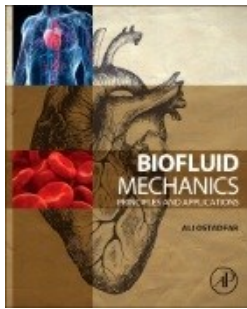






۳) Turbidity meter;
Hach® 2100 P
Used for measuring concentration of micro/nanoparticles in biofluids

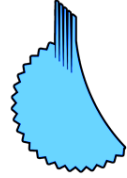
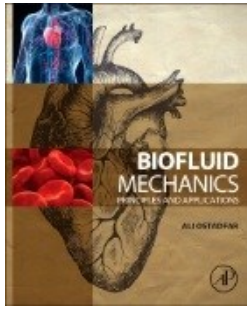




| | |
|---|--|
| <p>۴) Nano materials; Sigma-Aldrich® Merck®</p> |  |
| <p>۵) Data logger; OMEGA OM-SQ2010 Used for temperature, resistance. Voltage, etc. measurement</p> |  |
| <p>۶) Syringe pump; Used for measuring flow rates of biological fluids</p> |  |
| <p>۷) Peristaltic pump; Longer pump BT100-2J Flow rate range: ۰,۰۰۰۲ ml/min-۲۸۰ ml/min Used for measuring flow rates of biological fluids</p> |  |



| | |
|--|--|
| <p>۸) Bath Ultrasonic; SONICA Soltec S3 Used in nanofluids preparation</p> |  |
| <p>۹) Magnetic heater; Used in nanoparticle synthesis</p> |  |
| <p>۱۰) ۳-digit magnetic scale; AND 0.001 gr</p> |  |
| <p>۱۱) Varius types of temeperature sensors;</p> |  |

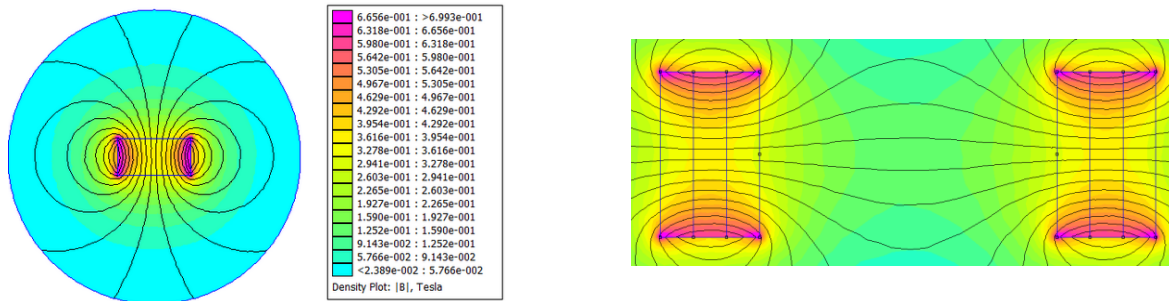


Software:

FEMM®;

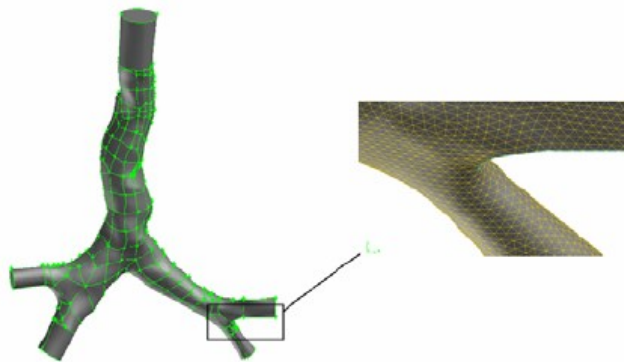
Finite Element Method Magnetics

Used for simulating magnetic fields present during magnetic particles flow



ANSYS FLUENT®;

Used for simulating flow and particle behavior in arteries, lung, etc.



3D Doctor®;

Used for reconstruction of CT-scan images for numerical studies

