Influence of Shape and Hydrodynamics on Rod-Like Colloid (Microbe) Retention

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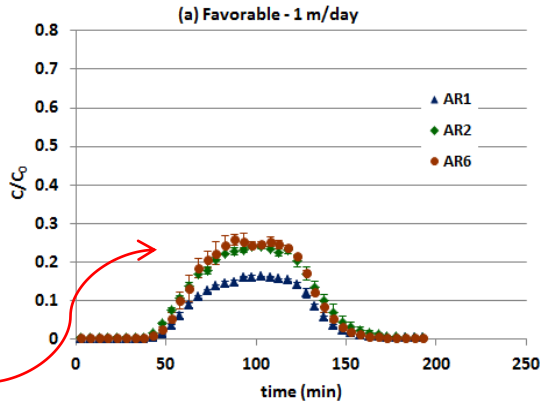
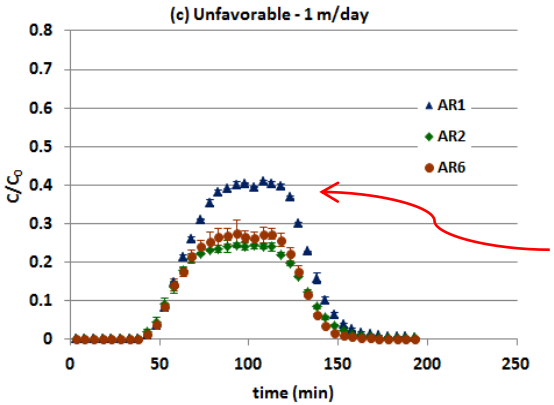
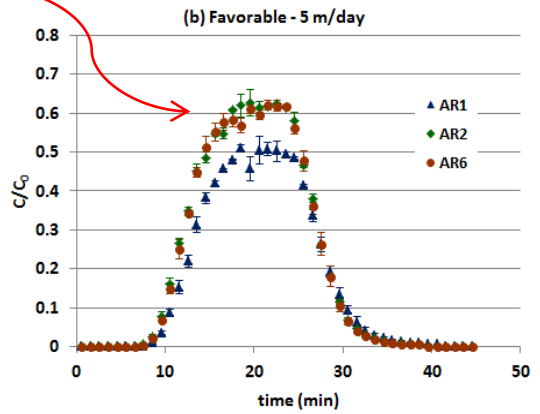
AR1 – 1 µm sphere
AR2 – rod (2:1)
AR6 – rod (6:1)

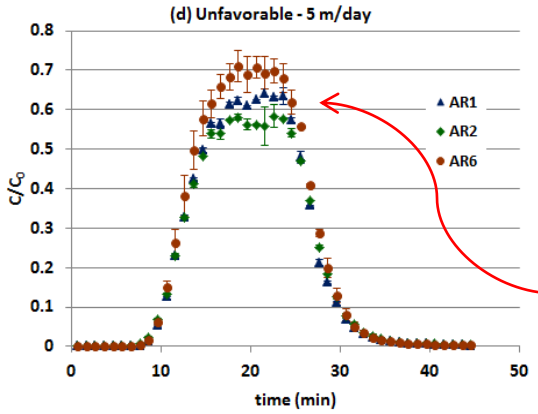




Higher C/C_0 breakthrough & lesser retention of rods than spheres under favorable conditions

Lower C/C_0 breakthrough & greater retention of rods than spheres at low velocity under unfavorable conditions





Particle shape effect on retention was less pronounced at high velocity under unfavorable conditions

Rod tumbling along the surface under both conditions – coupled effect of hydrodynamic and colloidal interactions