

9/14/23

$$\frac{1}{T_2} = \frac{1}{T_{2,B}} + \rho \frac{S}{V} + \frac{D(\gamma GTE)^2}{12}$$

$$T_{2,B} = 2.5 \text{ s}$$

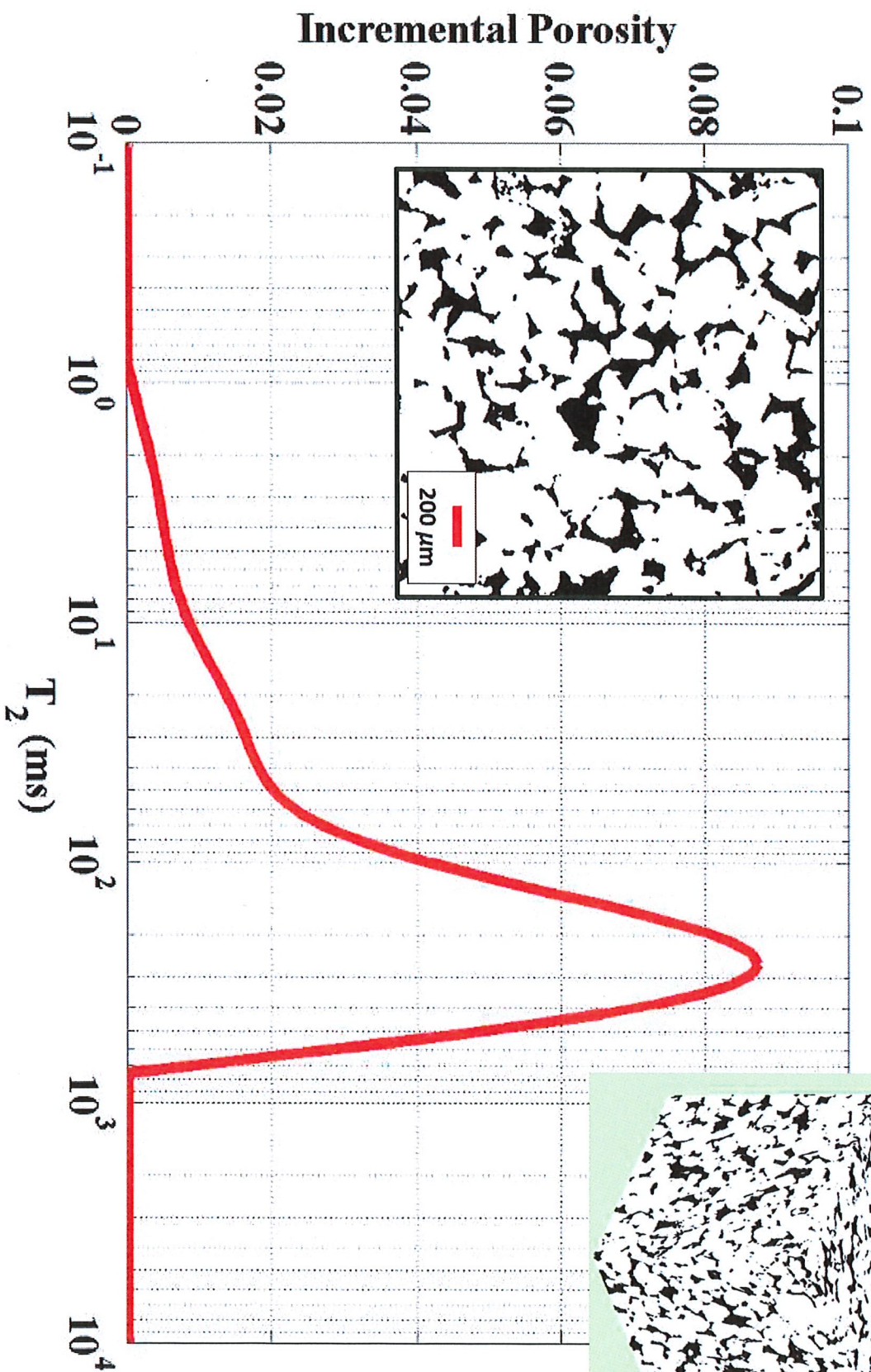
$$T_2 = 0.261 \text{ s}$$

$$\rho = 45 \text{ } \mu\text{m/s}$$

$$\frac{S}{V} = \frac{4\pi r^2}{\frac{4}{3}\pi r^3} = \frac{3}{r} = \frac{6}{D}$$

$$\frac{1}{0.261} = \frac{1}{2.5} + 45 \frac{6}{D}$$

$$\Rightarrow \boxed{D = 79 \text{ } \mu\text{m}}$$



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