Simulation of Failure of AlN Specimens

Grain size: \( d_a = 10 \ \mu m \)

Specimen size range:
\[
D = L = 50, 100, 200, 400, 800 \ \mu m \quad b = 10 \ \mu m
\]

Calculation of average stress:
\[
\bar{\sigma}^k = \frac{1}{V_k} \sum_{p=1}^{n_k} \mathbf{t}^p \otimes (\mathbf{x}^{cp} - \mathbf{x}^k) A_p \quad \sigma_a = \frac{1}{V} \sum_{k=1}^{N} V_k \bar{\sigma}_{11}^k
\]

![Graphs showing simualtions and model predictions for different strain rates and specimen sizes.](image-url)