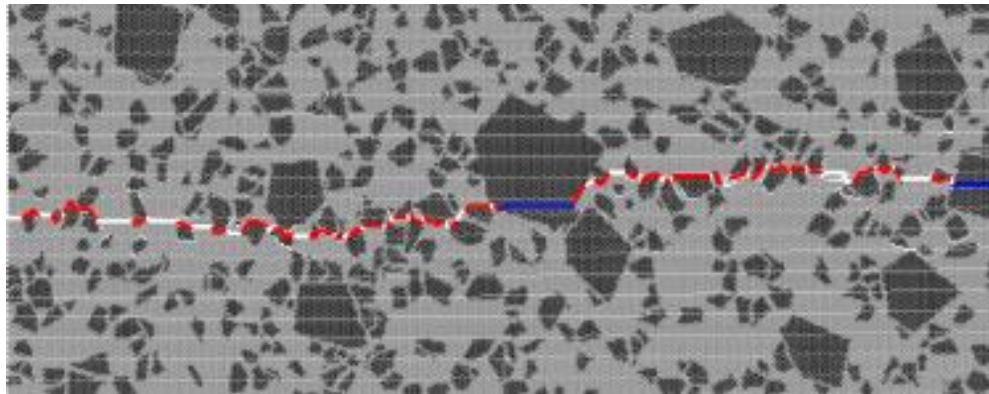


## SUPPLEMENTARY MATERIALS

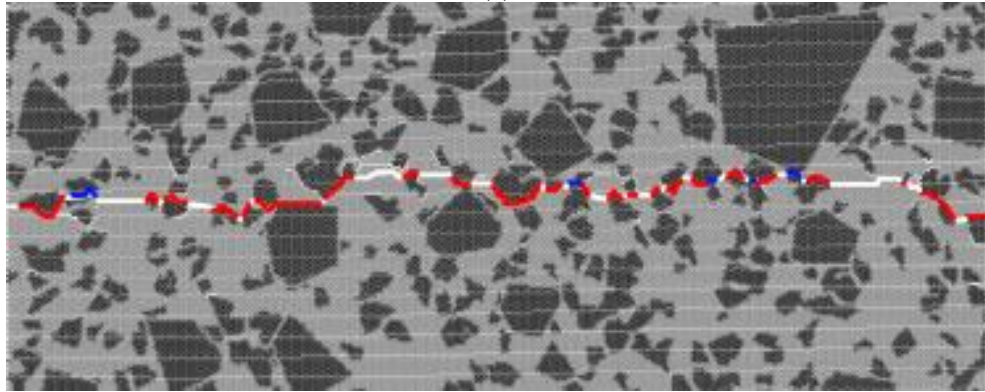
for

# Analysis of the Quasi-Static and Dynamic Fracture of the Silica Refractory Using the Mesoscale Discrete Element Modelling

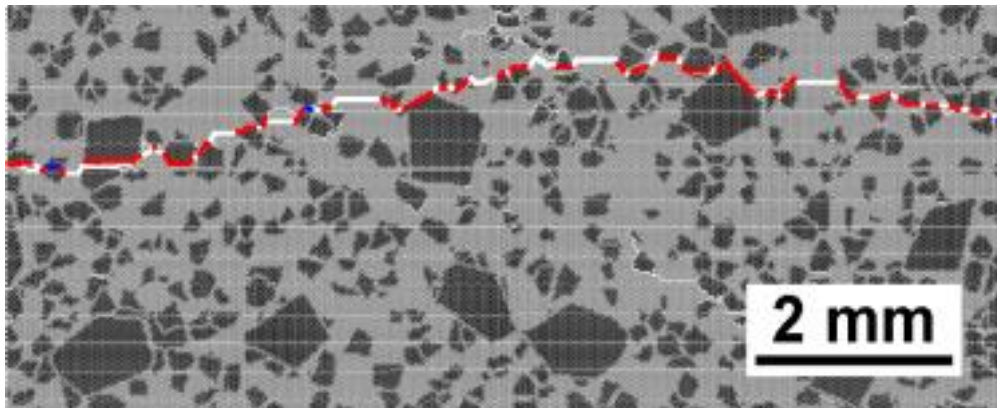
Aleksandr S. Grigoriev, Andrey V. Zabolotskiy, Evgeny V. Shilko, Andrey I. Dmitriev and Kirill Andreev



(a)



(b)



(c)

**Figure S1.** Crack patterns of three model samples under uniaxial tension. Quasi-static model of fracture. The interface's strength is 66.7% of the strength of the matrix. The above pictures are enlarged pictures in Figure 6a-c in the main body of the manuscript.