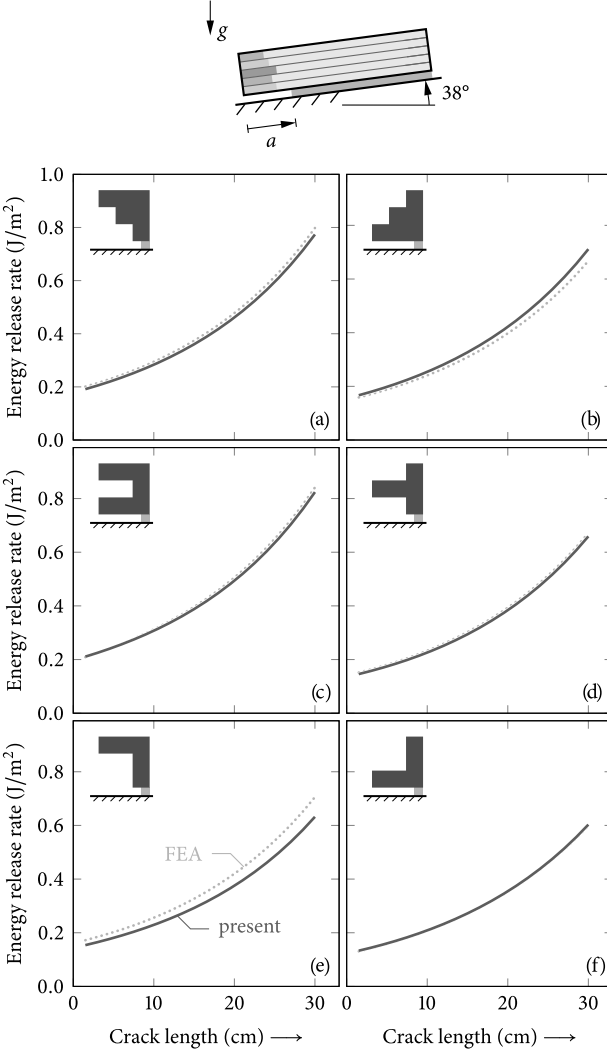
g
38°
a
Energy release rate (J/m²)
1.0
0.8
0.6
0.4
0.2
0.0
(a)
(b)
(c)
(d)
(e)
(f)
FEA
present
0
10
20
30
Crack length (cm) ⟶
Crack length (cm) ⟶