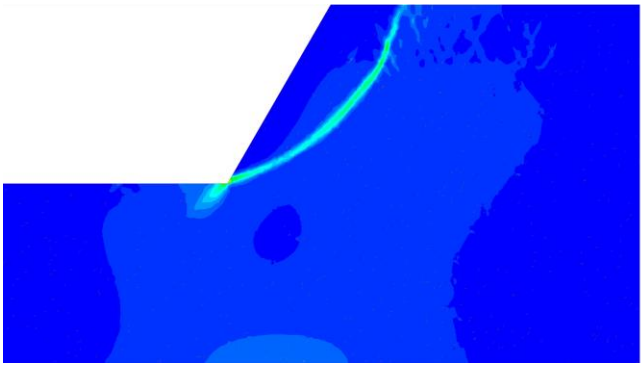
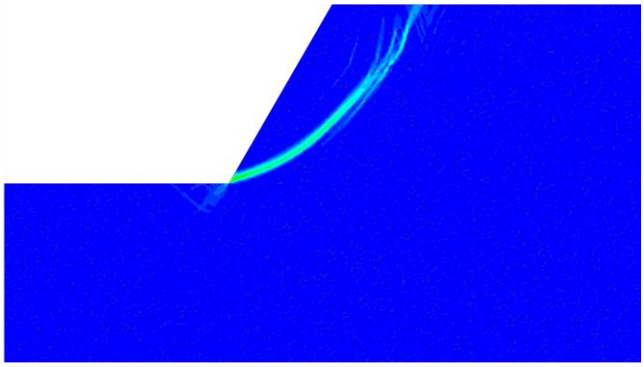
附录图表

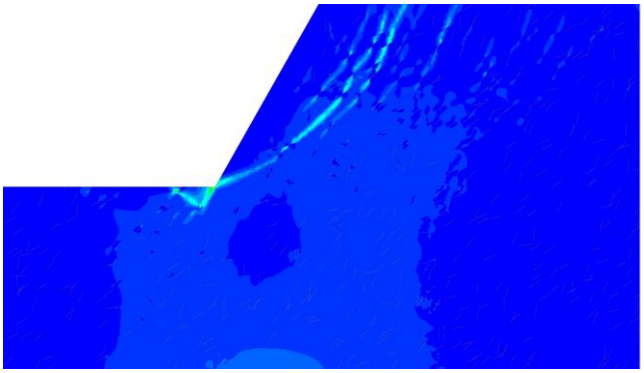
附图 不同坡体结构最大塑性剪应变云图与安全稳定率变化情况



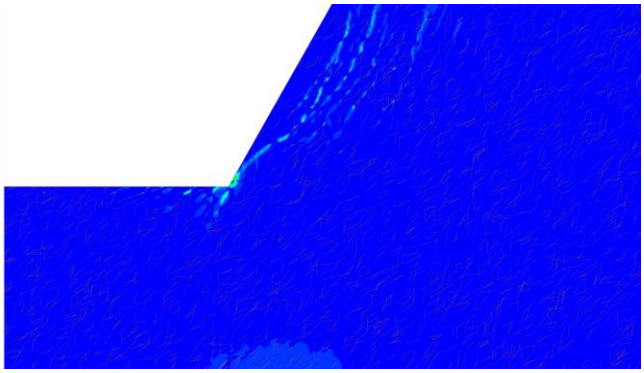
（a）$K=3$ $L=5\mathrm{m}$ $D=0.001$



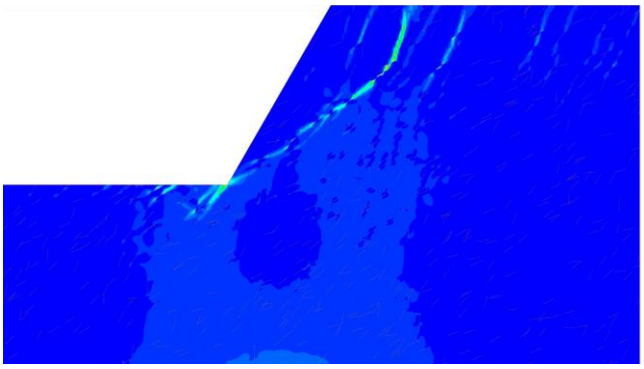
（b）$K=6$ $L=5\mathrm{m}$ $D=0.006$



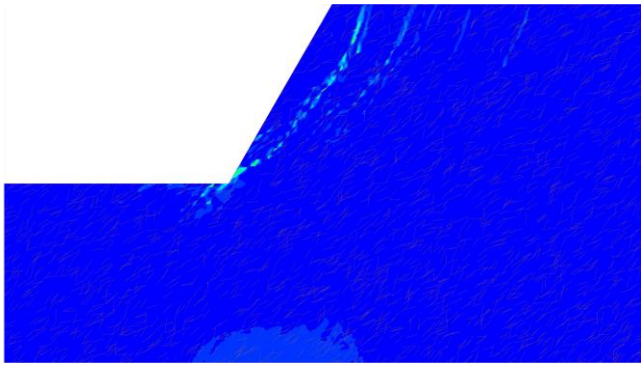
（c）$K=3$ $L=15\mathrm{m}$ $D=0.001$



（d）$K=3$ $L=15\mathrm{m}$ $D=0.006$



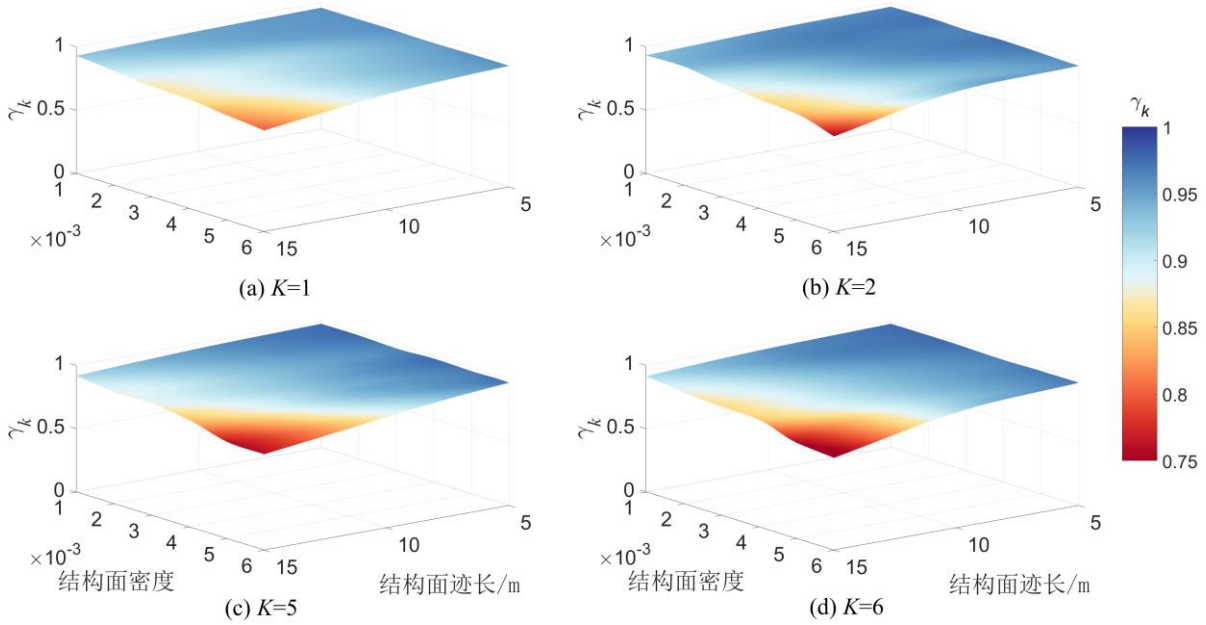
（e）$K=6$ $L=15\mathrm{m}$ $D=0.001$



（f）$K=6$ $L=15\mathrm{m}$ $D=0.006$

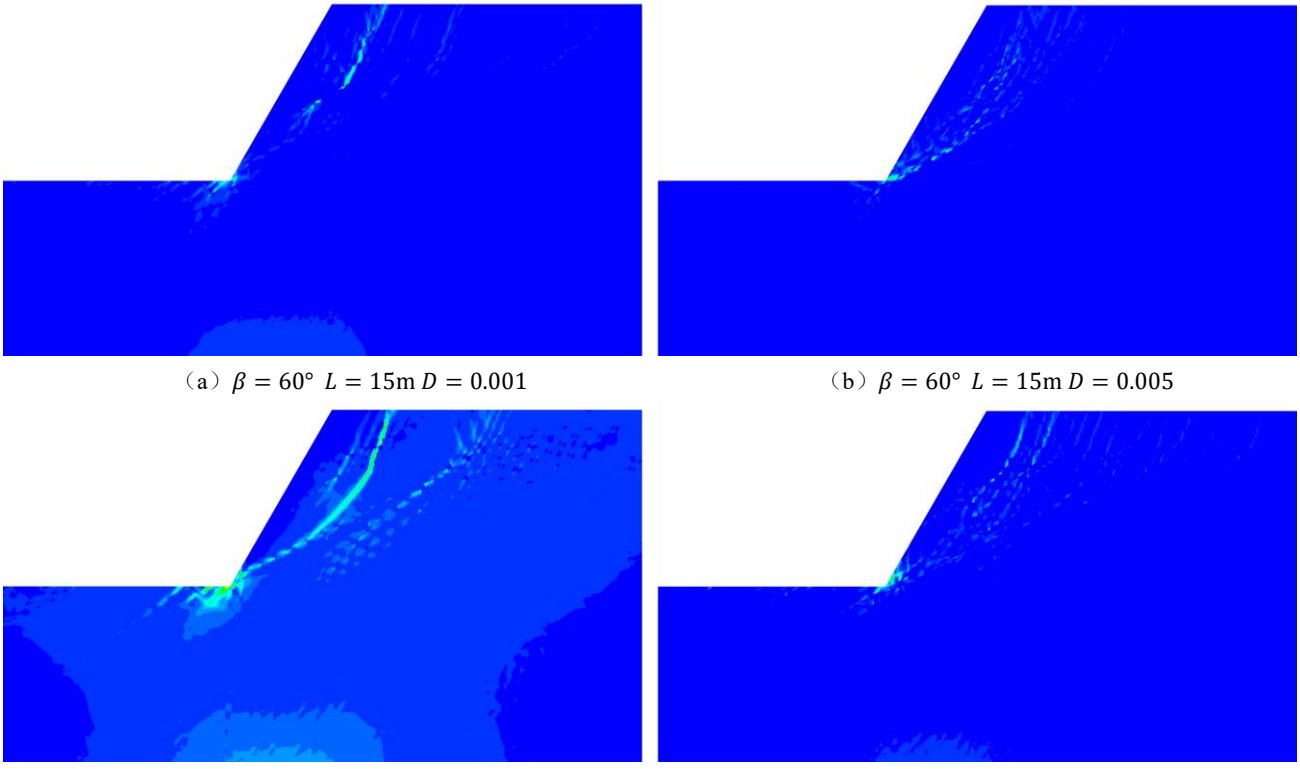
附图 1 整体块状结构边坡不同工况下最大塑性剪应变云图

Attached Fig.1 Clouds of maximum plastic shear strain under different working conditions on slopes of integral massive structure



附图 2 整体块状结构边坡安全稳定率变化情况

Attached Fig.2 Changes in safety stability rate of integral massive structure slope



（a）$\beta = 60°$ $L = 15\text{m}$ $D = 0.001$

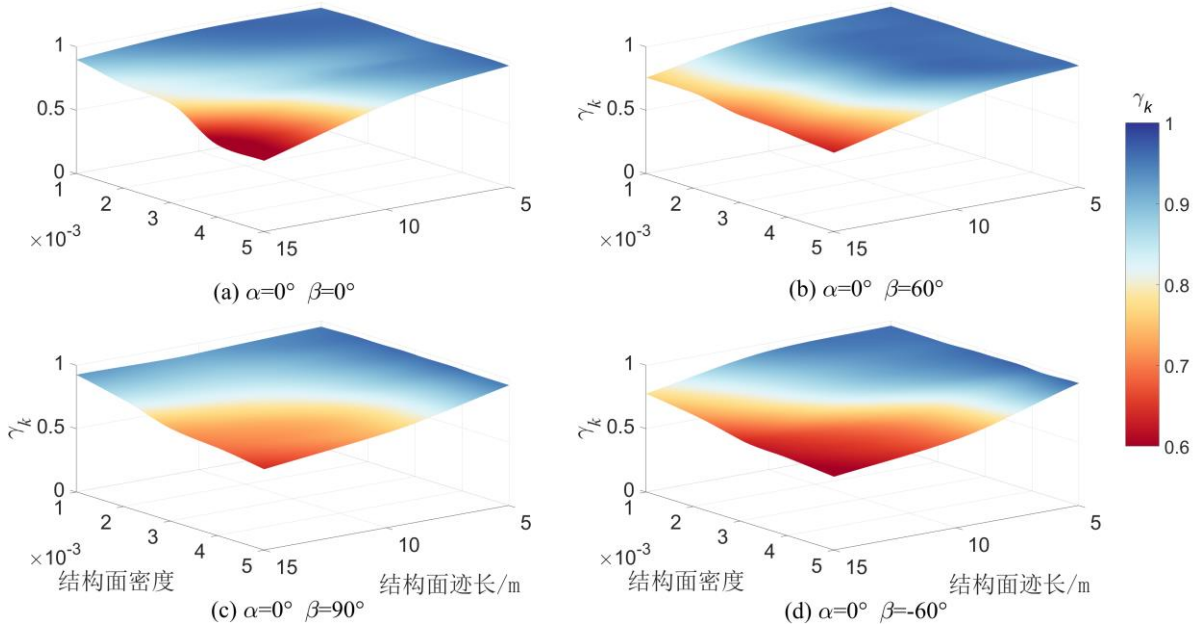
（b）$\beta = 60°$ $L = 15\text{m}$ $D = 0.005$

（c）$\beta = 90°$ $L = 15\text{m}$ $D = 0.001$

（d）$\beta = 90°$ $L = 15\text{m}$ $D = 0.005$

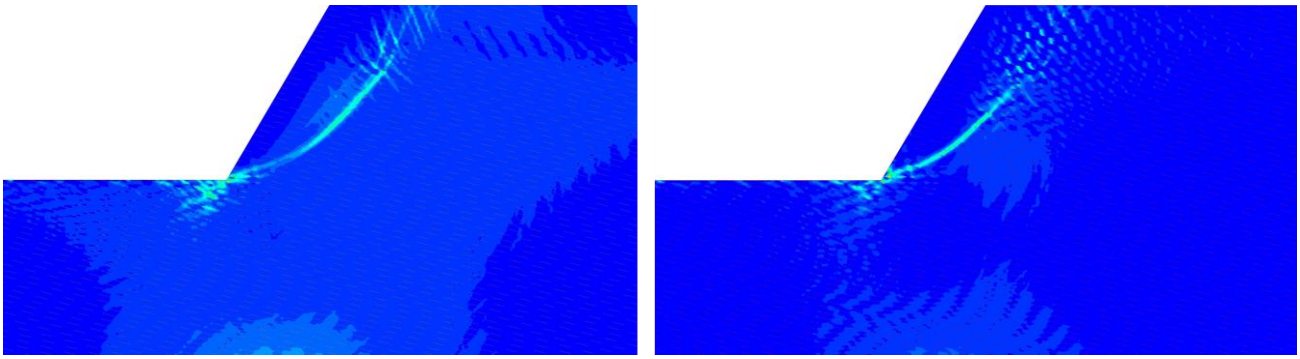
附图 3 块状结构边坡不同工况下最大塑性剪应变云图

Attached Fig.3 Clouds of maximum plastic shear strain under different working conditions of massive structure



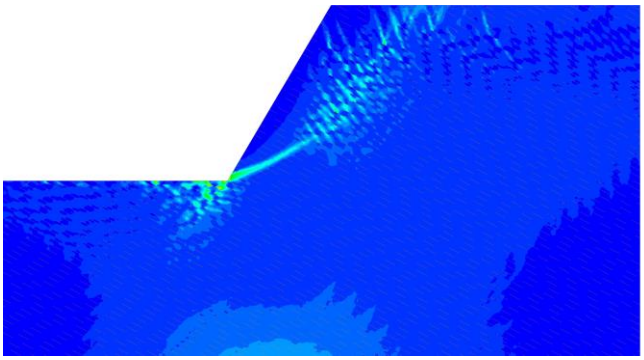
附图 4 块状结构边坡安全稳定率变化情况

Attached Fig.4 Changes in safety stability rate of massive structure slopes

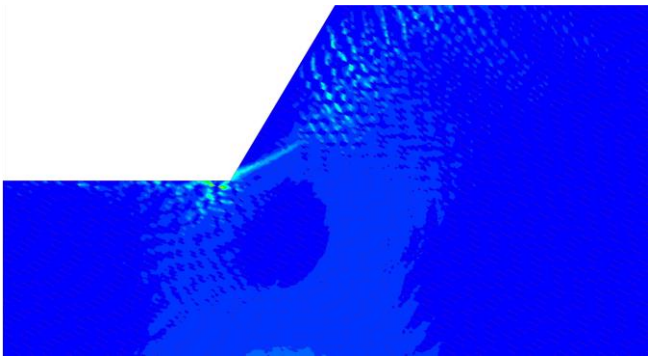


（a）$\beta = 15°$ $L = 20\text{m}$ 结构面强度 1

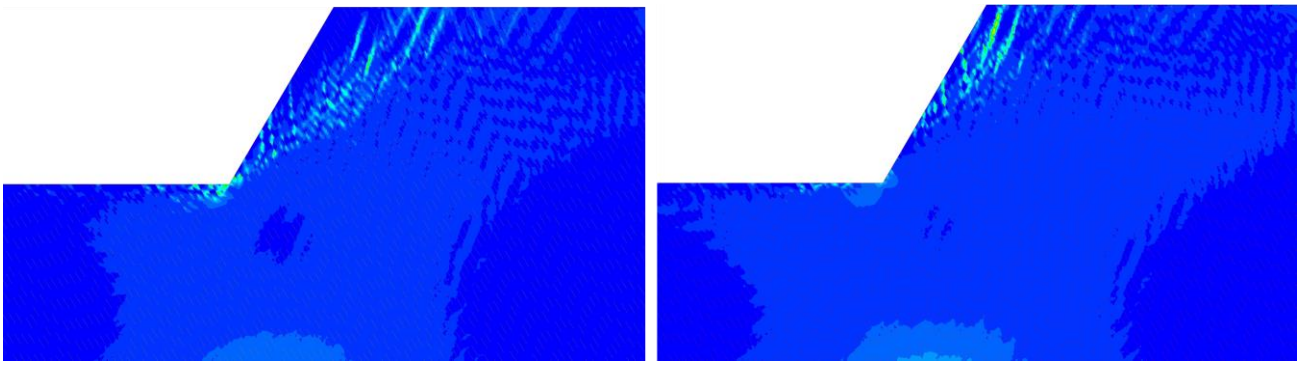
（b）$\beta = -15°$ $L = 20\text{m}$ 结构面强度 5



（c）$\beta = 30°$ $L = 20\text{m}$ 结构面强度 1



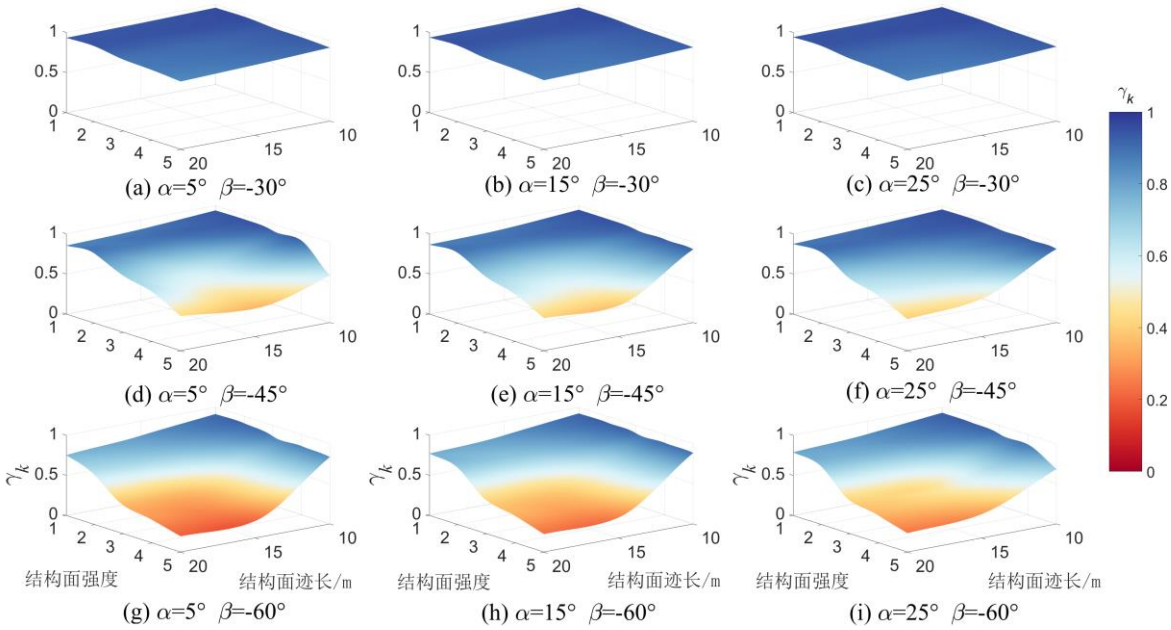
（d）$\beta = 30°$ $L = 20\text{m}$ 结构面强度 5



（e）$\beta = 60°\ L = 20\text{m}$ 结构面强度 1　　（f）$\beta = 60°\ L = 20\text{m}$ 结构面强度 5

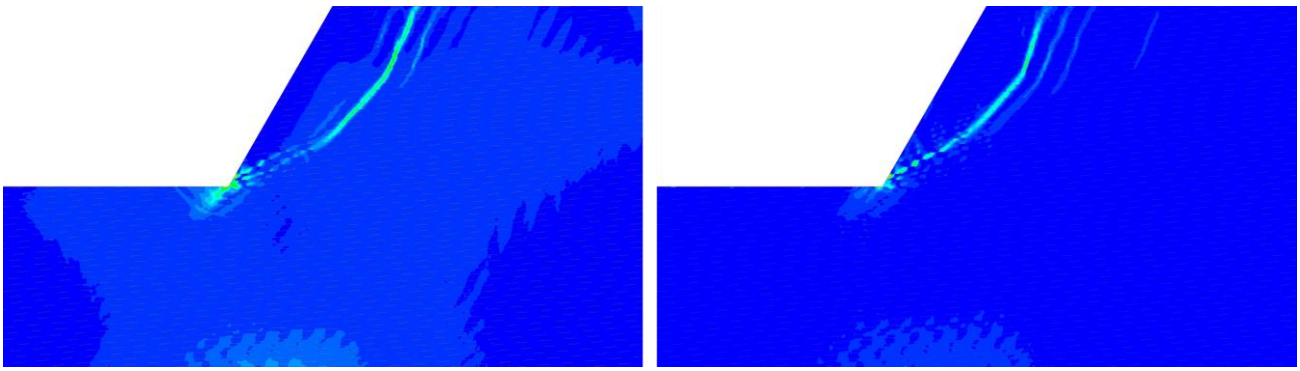
附图 5 反向结构边坡不同工况下最大塑性剪应变云图

Attached Fig.5 Maximum plastic shear strain clouds under different working conditions of reverse structure



附图 6 反向结构边坡安全稳定率变化情况

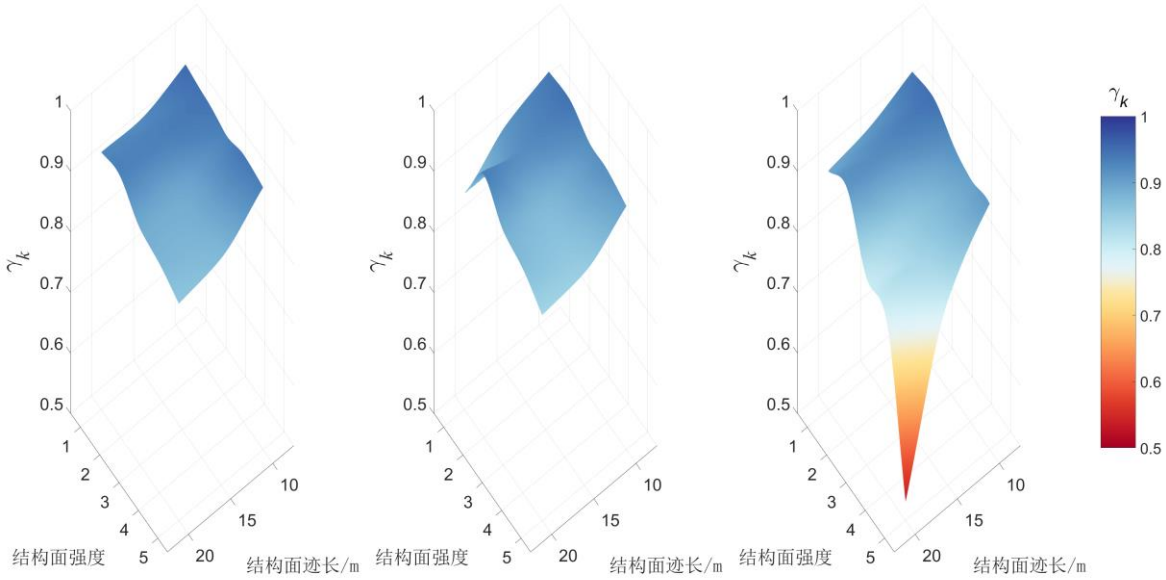
Attached Fig.6 Changes in safety stability rate of reverse structure slopes



（a）$\beta = 5°\ L = 20\text{m}$ 结构面强度 1　　（b）$\beta = 5°\ L = 20\text{m}$ 结构面强度 4

附图 7 平叠结构边坡不同工况下最大塑性剪应变云图

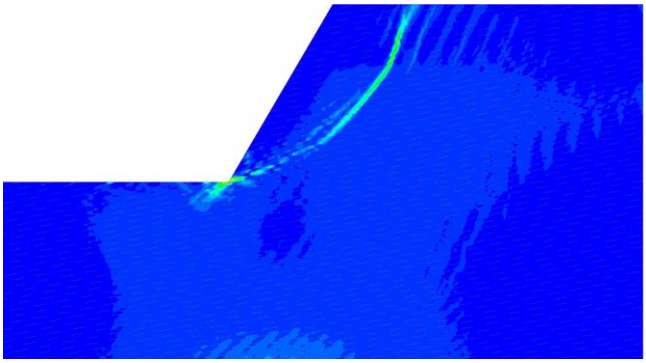
Attached Fig.7 Clouds of maximum plastic shear strain under different working conditions on flat stacked structure



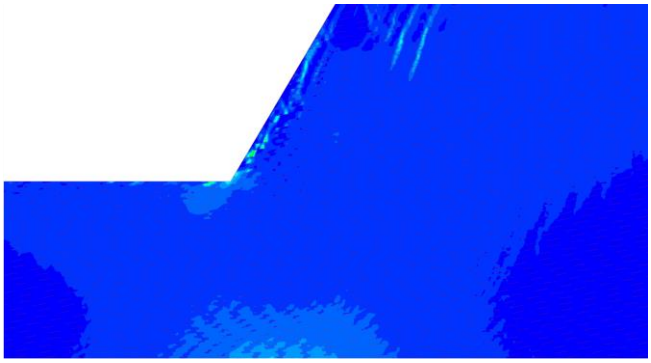
(a) α=0° β=-5° (b) α=0° β=0° (c) α=0° β=5°

附图 8 平叠结构边坡安全稳定率变化情况

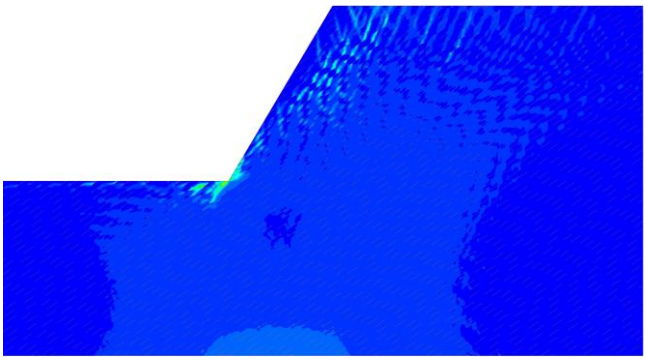
Attached Fig.8 Changes in safety stability rate of flat stacked structure slopes



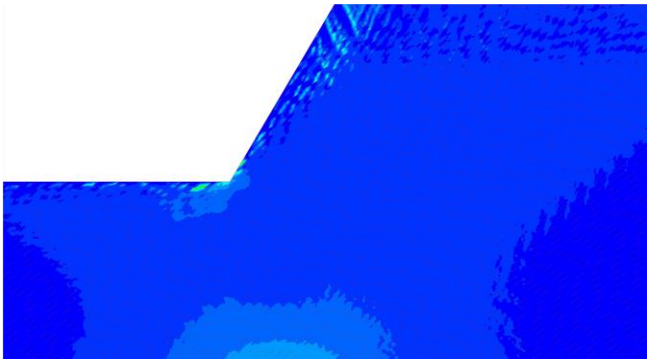
（a）$\beta = 15°$ $L = 20\text{m}$ 结构面强度 1



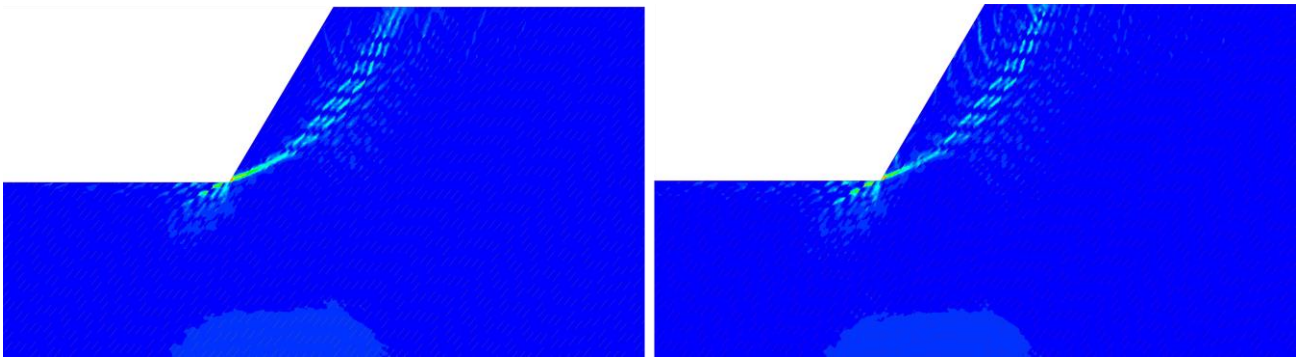
（b）$\beta = 15°$ $L = 20\text{m}$ 结构面强度 5



（c）$\beta = 45°$ $L = 20\text{m}$ 结构面强度 1



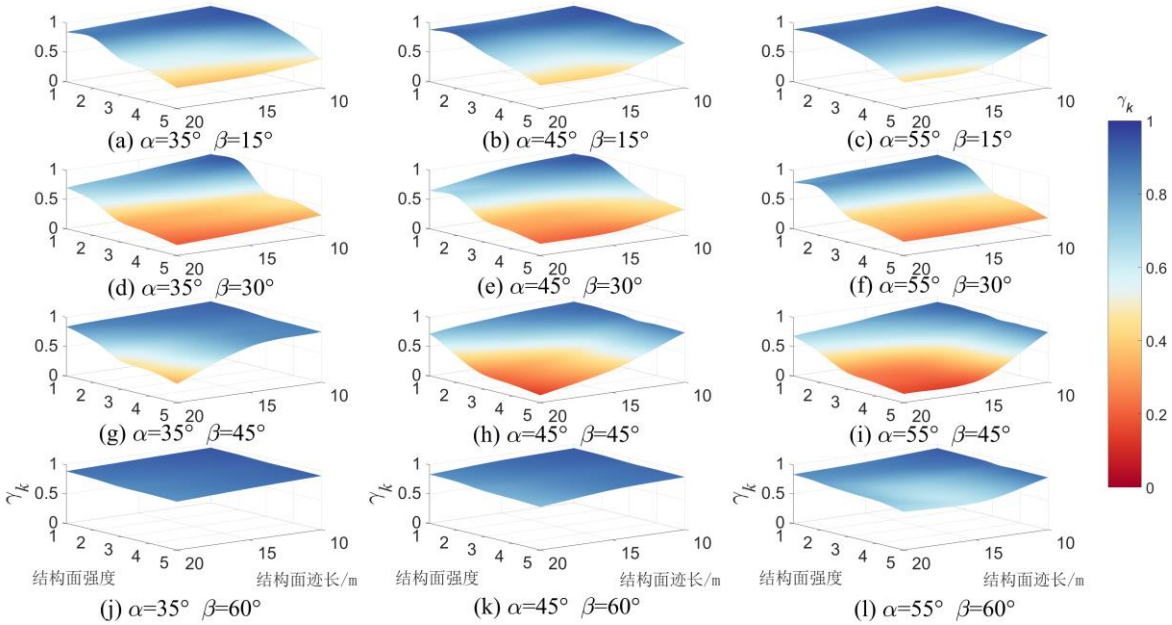
（d）$\beta = 45°$ $L = 20\text{m}$ 结构面强度 5



（e）$\beta = 60°\ L = 20\text{m}$ 结构面强度 1　　（f）$\beta = 60°\ L = 20\text{m}$ 结构面强度 5

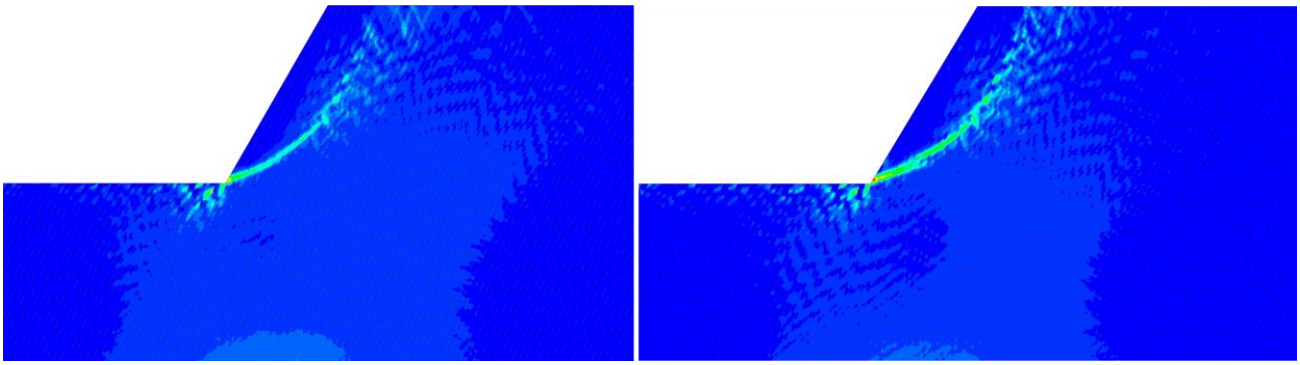
附图 9 斜向结构边坡不同工况下最大塑性剪应变云图

Attached Fig.9 Clouds of maximum plastic shear strain under different working conditions of oblique structure

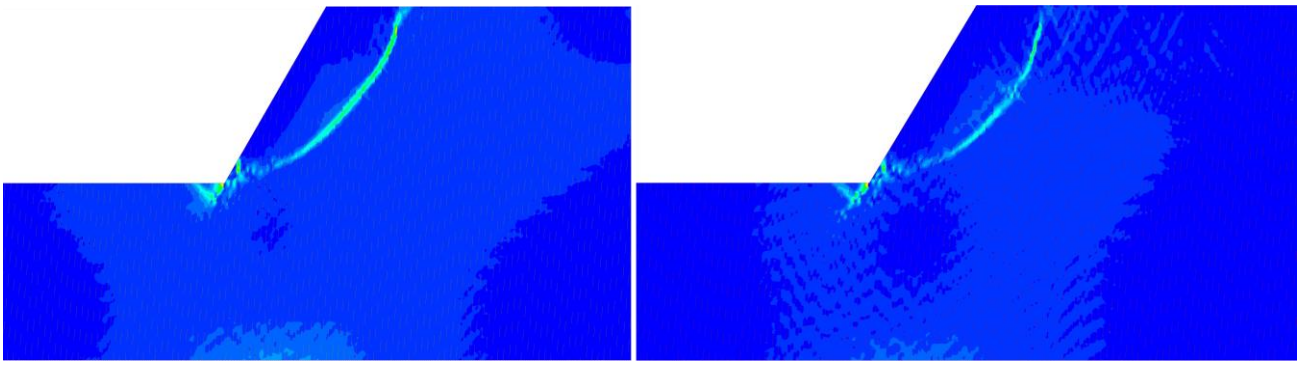


附图 10 斜向结构边坡安全稳定率变化情况

Attached Fig.10 Changes in safety stability rate of oblique structure slopes



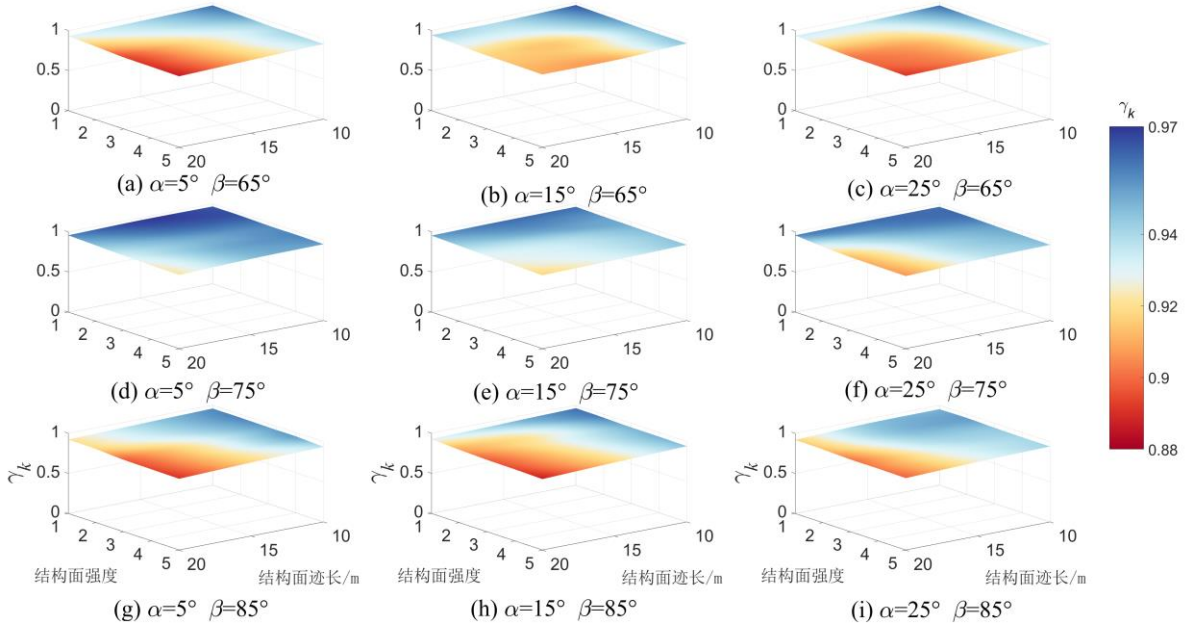
（a）$\beta = 65°\ L = 20\text{m}$ 结构面强度 1　　（b）$\beta = 65°\ L = 20\text{m}$ 结构面强度 5



（c）$\beta = 85°\ L = 20\text{m}$ 结构面强度 1　　（d）$\beta = 85°\ L = 20\text{m}$ 结构面强度 5

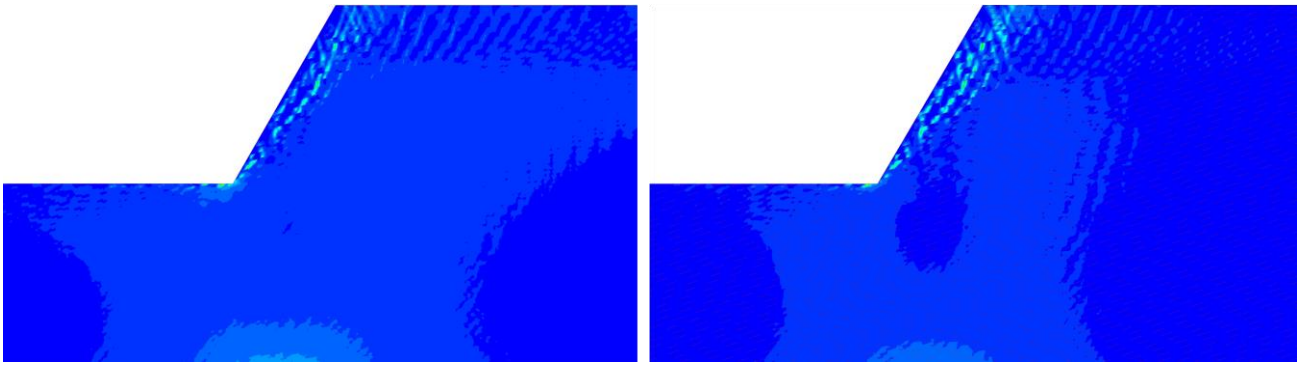
附图 11 层面陡倾顺向结构边坡不同工况下最大塑性剪应变云图

Attached Fig.11 Clouds of maximum plastic shear strain under different working conditions of layered steep slope forward structure

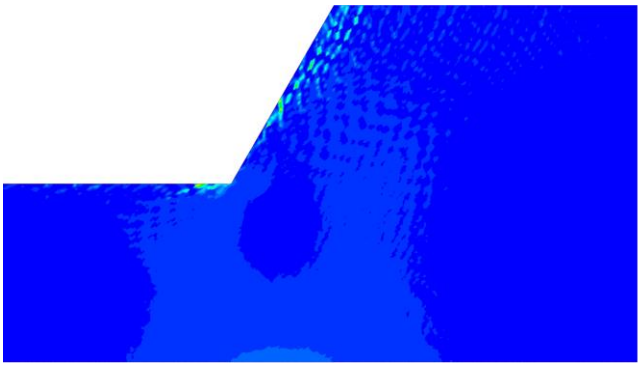


附图 12 层面陡倾顺向结构边坡安全稳定率变化情况

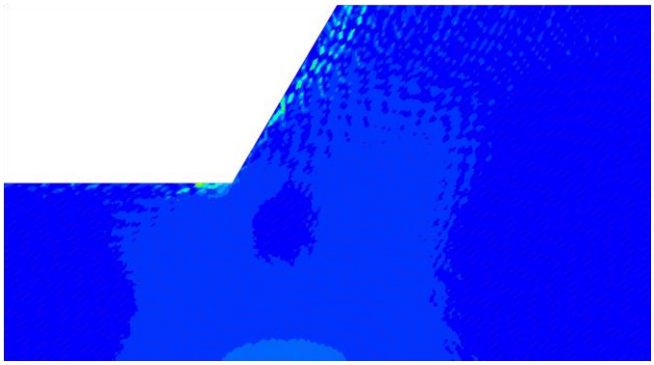
Attached Fig.12 Changes in safety stability rate of layered steep slope forward structure slopes



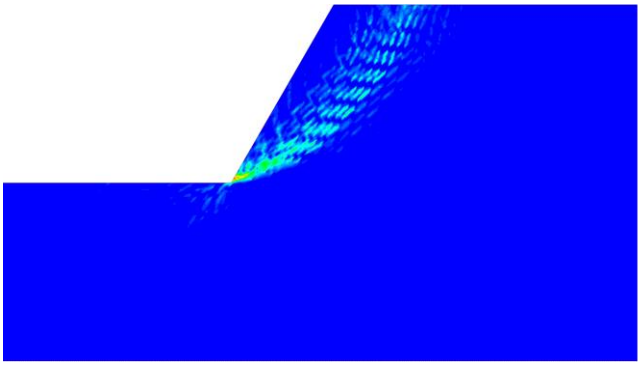
（a）$\beta = 20°\ L = 20\text{m}$ 结构面强度 3　　（b）$\beta = 20°\ L = 20\text{m}$ 结构面强度 5



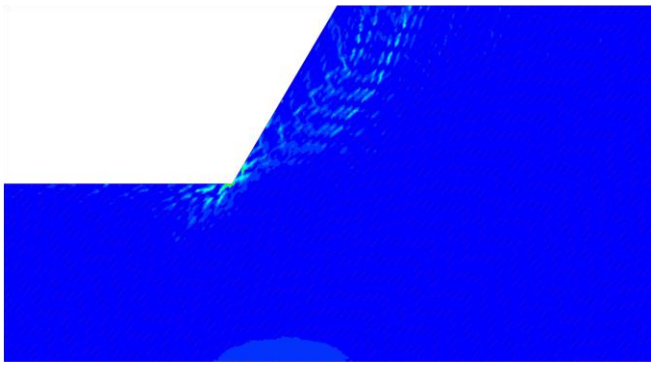
（c）$\beta = 40°\ L = 20\text{m}$ 结构面强度 3



（d）$\beta = 40°\ L = 20\text{m}$ 结构面强度 5



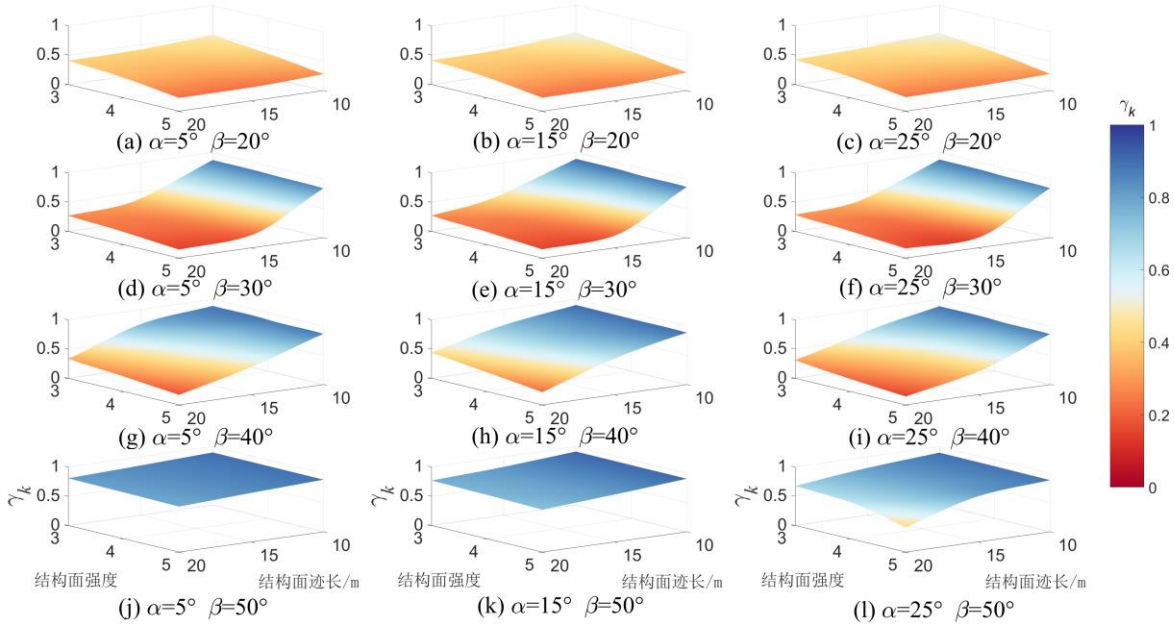
（e）$\beta = 50°\ L = 20\text{m}$ 结构面强度 3



（f）$\beta = 50°\ L = 20\text{m}$ 结构面强度 5

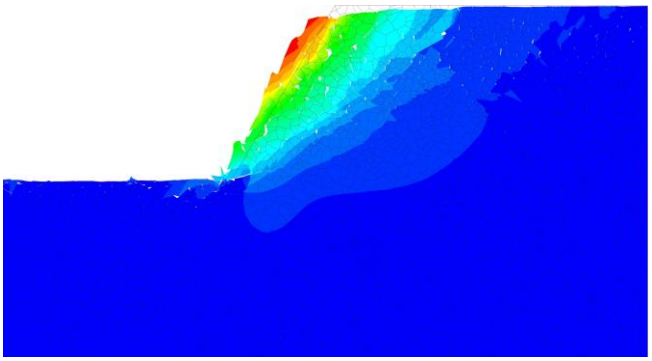
附图 13 层面弱面顺向结构边坡不同工况下最大塑性剪应变云图

Attached Fig.13 Clouds of maximum plastic shear strain under different working conditions on the slope of layered weak surface forward structure

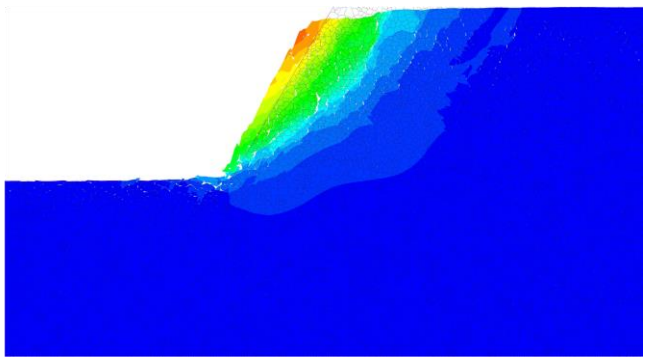


附图 14 层面弱面顺向结构边坡安全稳定率变化情况

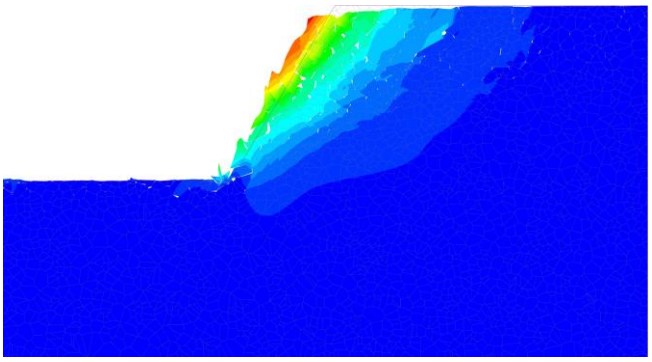
Attached Fig.14 Variation of safety stability rate of layered weak surface forward structure slopes



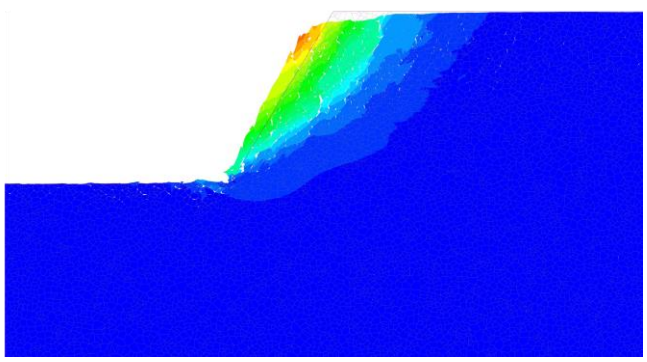
（a）D=0.005　结构面强度2



（b）D=0.015　结构面强度2



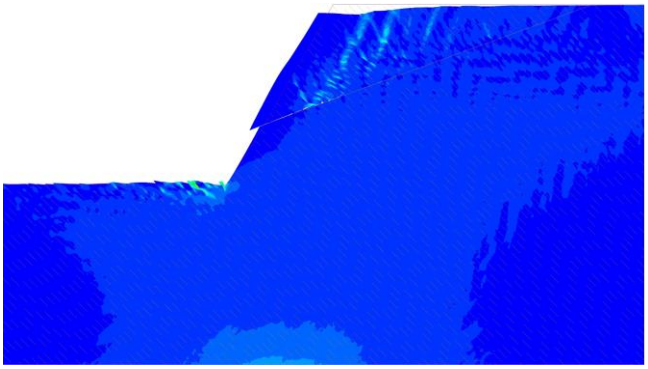
（c）D =0.005　结构面强度4



（d）D =0.015　结构面强度4

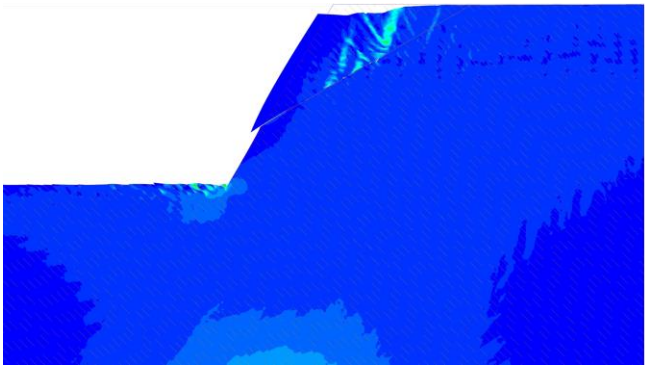
附图 15 碎裂散状结构边坡不同工况下总位移云图

Attached Fig.15 Total displacement clouds under different working conditions of cataclastic structure

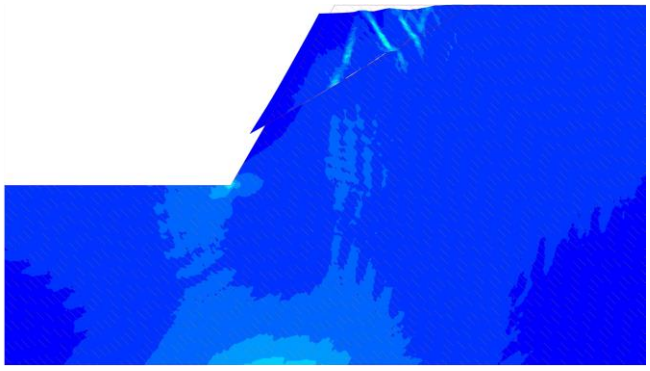


（a）$\beta = 20°$ 结构面强度 1

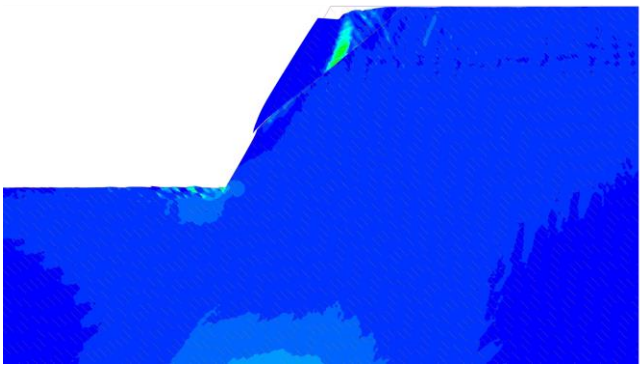
（b）$\beta = 20°$ 结构面强度 5



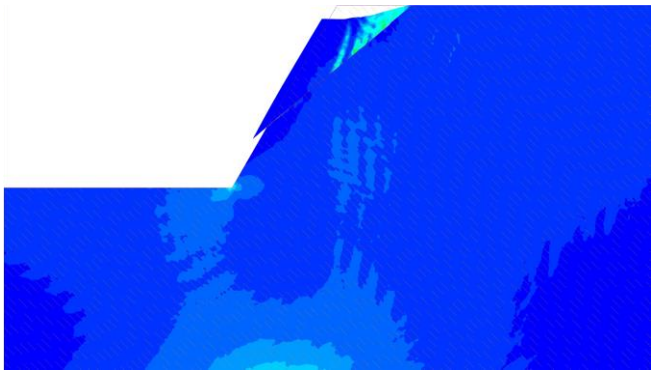
（c）$\beta = 30°$ 结构面强度 1



（d）$\beta = 30°$ 结构面强度 5



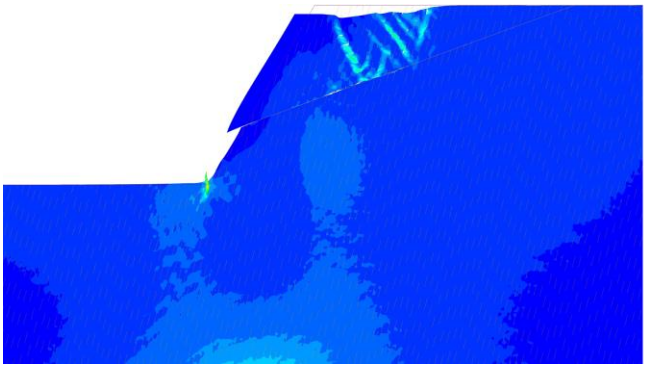
（e）$\beta = 40°$ 结构面强度 1



（f）$\beta = 40°$ 结构面强度 5

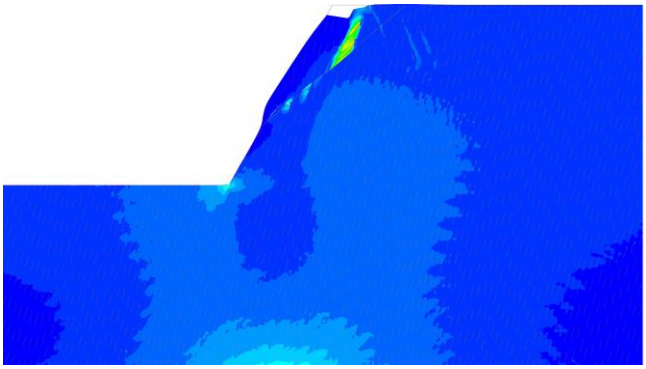
附图 16 反向倾倒结构边坡不同工况下最大塑性剪应变云图

Attached Fig.16 Maximum plastic shear strain clouds under different working conditions of reverse toppling structure

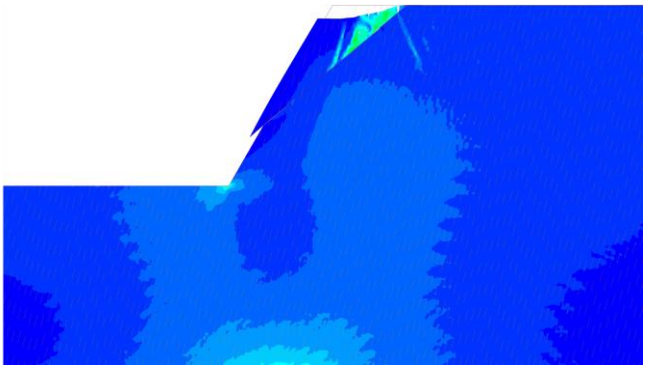


（a）$\beta = 20°$ 结构面强度 1

（b）$\beta = 20°$ 结构面强度 5



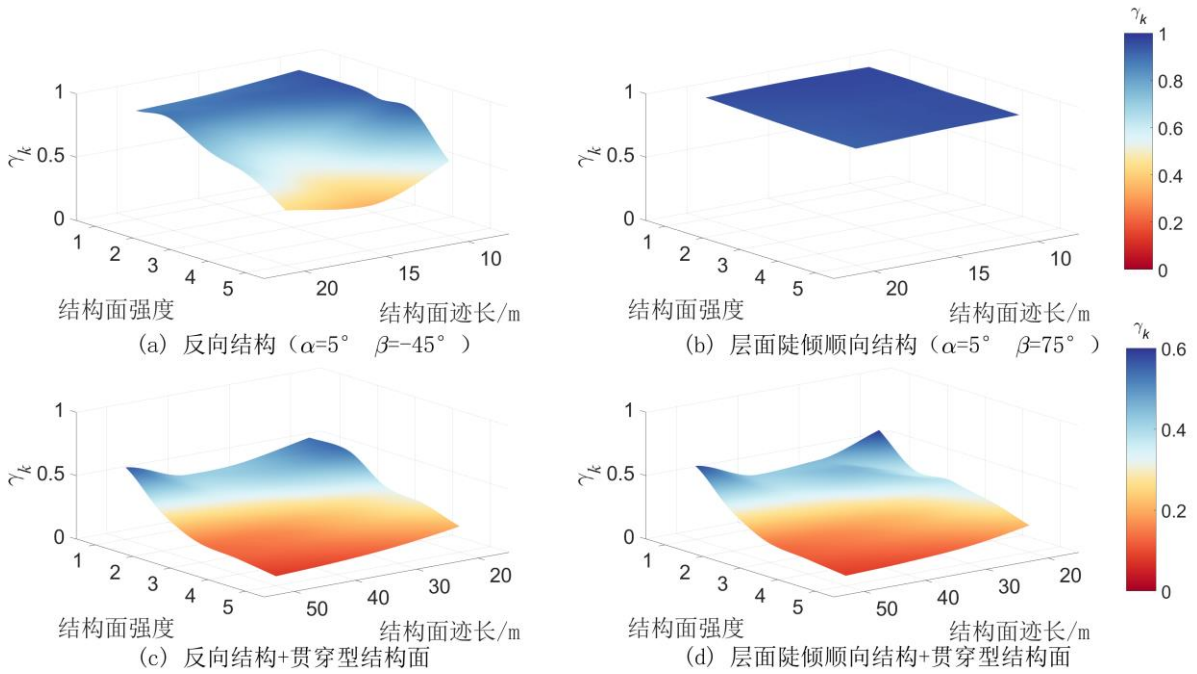
（c）$\beta = 40°$ 结构面强度 1



（d）$\beta = 40°$ 结构面强度 5

附图 17 层面陡倾顺向倾倒结构边坡不同工况下最大塑性剪应变云图

Attached Fig.17 Clouds of maximum plastic shear strain under different working conditions of slopes with layered steep slope forward toppling structure



附图 18 倾倒结构边坡安全稳定率变化情况

Attached Fig.18 Changes in safety stability rate of toppling structure slopes

附表：不同坡体结构类型下岩质边坡安全稳定率计算结果

附表 1 整体块状结构边坡安全稳定率

Attached Table 1 Safety stability rate of integral massive structure

Fisher 常数 K	结构面迹长 L/m	结构面密度 D/（单位面积结构面数目）					
		0.001	0.002	0.003	0.004	0.005	0.006
1	5	0.957	0.957	0.957	0.953	0.957	0.957
	10	0.949	0.945	0.917	0.917	0.917	0.906
	15	0.929	0.902	0.870	0.862	0.827	0.799
2	5	0.965	0.972	0.965	0.972	0.965	0.957
	10	0.957	0.965	0.957	0.945	0.921	0.929
	15	0.933	0.937	0.894	0.862	0.839	0.752
3	5	0.969	0.969	0.965	0.961	0.965	0.957
	10	0.949	0.949	0.961	0.921	0.921	0.909
	15	0.925	0.906	0.874	0.827	0.827	0.807
4	5	0.972	0.972	0.972	0.969	0.969	0.969
	10	0.957	0.945	0.949	0.929	0.929	0.937
	15	0.929	0.890	0.878	0.870	0.776	0.764
5	5	0.976	0.976	0.965	0.976	0.969	0.969
	10	0.957	0.945	0.933	0.933	0.925	0.874
	15	0.917	0.882	0.882	0.843	0.764	0.756
6	5	0.976	0.976	0.972	0.965	0.969	0.969
	10	0.957	0.957	0.937	0.929	0.917	0.909
	15	0.913	0.878	0.858	0.846	0.756	0.728

附表 2 块状结构边坡安全稳定率

Attached Table 2 Safety stability rate of massive structure

结构面 2 产状	结构面迹长 L/m	结构面密度 D/（单位面积结构面数目）				
		0.001	0.002	0.003	0.004	0.005
倾向：270° 倾角：0° $\alpha=0°$ $\beta=0°$	5	0.957	0.965	0.953	0.961	0.957
	10	0.961	0.937	0.882	0.886	0.827
	15	0.898	0.819	0.783	0.571	0.559
倾向：270° 倾角：60° $\alpha=0°$ $\beta=60°$	5	0.965	0.965	0.957	0.957	0.957
	10	0.925	0.941	0.941	0.937	0.850
	15	0.756	0.752	0.689	0.661	0.622
倾向：270° 倾角：90° $\alpha=0°$ $\beta=90°$	5	0.953	0.961	0.961	0.957	0.949
	10	0.921	0.874	0.819	0.756	0.748
	15	0.925	0.843	0.732	0.693	0.638
倾向：90° 倾角：60° $\alpha=0°$ $\beta=-60°$	5	0.961	0.957	0.965	0.961	0.965
	10	0.937	0.898	0.866	0.724	0.697
	15	0.776	0.724	0.642	0.614	0.579
倾向：90° 倾角：30° $\alpha=0°$ $\beta=-30°$	5	0.957	0.965	0.953	0.965	0.953
	10	0.917	0.874	0.878	0.858	0.858
	15	0.866	0.831	0.776	0.760	0.752

注：α为结构面与坡面走向的夹角；β为结构面倾角，其为“+”时表示结构面与坡面倾向相同，否则相反。

附表 3 反向结构边坡安全稳定率

Attached Table 3 Safety stability rate of reverse structure

结构面产状	结构面迹长 L/m	结构面强度				
		1	2	3	4	5
倾向：85°	10	0.969	0.965	0.953	0.949	0.937
倾角：15°	15	0.969	0.957	0.929	0.921	0.902
$\alpha=5^\circ\ \beta=-15^\circ$	20	0.969	0.957	0.945	0.933	0.909
倾向：85°	10	0.957	0.961	0.937	0.933	0.917
倾角：30°	15	0.941	0.949	0.909	0.898	0.878
$\alpha=5^\circ\ \beta=-30^\circ$	20	0.933	0.941	0.890	0.874	0.846
倾向：85°	10	0.941	0.945	0.917	0.909	0.591
倾角：45°	15	0.882	0.890	0.610	0.496	0.350
$\alpha=5^\circ\ \beta=-45^\circ$	20	0.854	0.866	0.705	0.618	0.433
倾向：85°	10	0.913	0.913	0.866	0.858	0.835
倾角：60°	15	0.819	0.740	0.394	0.319	0.213
$\alpha=5^\circ\ \beta=-60^\circ$	20	0.752	0.614	0.354	0.287	0.197
倾向：75°	10	0.961	0.961	0.969	0.965	0.953
倾角：15°	15	0.949	0.949	0.917	0.909	0.890
$\alpha=15^\circ\ \beta=-15^\circ$	20	0.965	0.949	0.925	0.913	0.894
倾向：75°	10	0.961	0.961	0.941	0.933	0.921
倾角：30°	15	0.941	0.949	0.909	0.898	0.882
$\alpha=15^\circ\ \beta=-30^\circ$	20	0.937	0.949	0.902	0.886	0.862
倾向：75°	10	0.949	0.949	0.929	0.925	0.913
倾角：45°	15	0.886	0.890	0.677	0.547	0.386
$\alpha=15^\circ\ \beta=-45^\circ$	20	0.866	0.874	0.685	0.587	0.406
倾向：75°	10	0.921	0.921	0.902	0.898	0.886
倾角：60°	15	0.823	0.744	0.441	0.362	0.256
$\alpha=15^\circ\ \beta=-60^\circ$	20	0.772	0.705	0.413	0.335	0.224
倾向：65°	10	0.972	0.961	0.961	0.957	0.945
倾角：15°	15	0.957	0.961	0.945	0.933	0.913
$\alpha=25^\circ\ \beta=-15^\circ$	20	0.953	0.953	0.949	0.937	0.913
倾向：65°	10	0.965	0.965	0.949	0.941	0.929
倾角：30°	15	0.945	0.953	0.913	0.898	0.878
$\alpha=25^\circ\ \beta=-30^\circ$	20	0.941	0.945	0.902	0.886	0.854
倾向：65°	10	0.953	0.957	0.933	0.929	0.917
倾角：45°	15	0.909	0.913	0.803	0.681	0.472
$\alpha=25^\circ\ \beta=-45^\circ$	20	0.874	0.882	0.665	0.567	0.394
倾向：65°	10	0.929	0.925	0.894	0.878	0.685
倾角：60°	15	0.839	0.795	0.480	0.472	0.299
$\alpha=25^\circ\ \beta=-60^\circ$	20	0.787	0.720	0.409	0.339	0.236

附表 4 平叠结构边坡安全稳定率

Attached Table 4 Safety stability rate of flat stacked structure

结构面产状	结构面迹长 L/m	结构面强度				
		1	2	3	4	5
倾向：270°	10	0.941	0.949	0.921	0.902	0.906
倾角：5°	15	0.909	0.925	0.866	0.850	0.803
$\alpha=0^\circ\ \beta=5^\circ$	20	0.894	0.909	0.807	0.787	0.531
倾向：270°	10	0.941	0.945	0.921	0.917	0.902
倾角：0°	15	0.913	0.921	0.878	0.866	0.850
$\alpha=0^\circ\ \beta=0^\circ$	20	0.858	0.933	0.886	0.870	0.839
倾向：90°	10	0.953	0.945	0.933	0.941	0.933
倾角：5°	15	0.925	0.933	0.894	0.886	0.874
$\alpha=0^\circ\ \beta=-5^\circ$	20	0.925	0.929	0.890	0.878	0.858

附表 5 斜向结构边坡安全稳定率

Attached Table 5 Safety stability rate of oblique structure

结构面产状	结构面迹长 L/m	结构面强度				
		1	2	3	4	5
倾向：305°	10	0.937	0.945	0.902	0.744	0.488
倾角：15°	15	0.894	0.894	0.646	0.551	0.374
$\alpha=35^\circ\ \beta=15^\circ$	20	0.846	0.854	0.602	0.512	0.350
倾向：305°	10	0.925	0.925	0.512	0.472	0.339
倾角：30°	15	0.803	0.744	0.394	0.350	0.236
$\alpha=35^\circ\ \beta=30^\circ$	20	0.701	0.575	0.331	0.268	0.181
倾向：305°	10	0.921	0.913	0.878	0.870	0.858
倾角：45°	15	0.882	0.870	0.811	0.791	0.776
$\alpha=35^\circ\ \beta=45^\circ$	20	0.839	0.709	0.472	0.433	0.323
倾向：305°	10	0.941	0.937	0.921	0.921	0.917
倾角：60°	15	0.917	0.906	0.890	0.886	0.878
$\alpha=35^\circ\ \beta=60^\circ$	20	0.890	0.874	0.843	0.839	0.827
倾向：315°	10	0.941	0.949	0.909	0.902	0.760
倾角：15°	15	0.890	0.902	0.705	0.563	0.413
$\alpha=45^\circ\ \beta=15^\circ$	20	0.886	0.902	0.713	0.567	0.394
倾向：315°	10	0.933	0.937	0.693	0.508	0.433
倾角：30°	15	0.850	0.740	0.409	0.331	0.220

结构面产状	结构面迹长 L/m	结构面强度				
		1	2	3	4	5
$\alpha=45^\circ\ \beta=30^\circ$	20	0.657	0.654	0.362	0.295	0.201
倾向：315°	10	0.917	0.913	0.874	0.866	0.846
倾角：45°	15	0.846	0.764	0.441	0.433	0.382
$\alpha=45^\circ\ \beta=45^\circ$	20	0.717	0.445	0.236	0.189	0.126
倾向：315°	10	0.933	0.929	0.909	0.906	0.898
倾角：60°	15	0.902	0.894	0.866	0.862	0.854
$\alpha=45^\circ\ \beta=60^\circ$	20	0.835	0.823	0.776	0.760	0.736
倾向：325°	10	0.937	0.945	0.917	0.909	0.894
倾角：15°	15	0.898	0.906	0.815	0.713	0.472
$\alpha=55^\circ\ \beta=15^\circ$	20	0.890	0.906	0.811	0.661	0.441
倾向：325°	10	0.913	0.862	0.524	0.433	0.291
倾角：30°	15	0.858	0.843	0.457	0.366	0.244
$\alpha=55^\circ\ \beta=30^\circ$	20	0.795	0.791	0.429	0.350	0.236
倾向：325°	10	0.913	0.913	0.878	0.866	0.850
倾角：45°	15	0.795	0.650	0.350	0.280	0.185
$\alpha=55^\circ\ \beta=45^\circ$	20	0.681	0.496	0.272	0.220	0.150
倾向：325°	10	0.933	0.925	0.902	0.898	0.890
倾角：60°	15	0.870	0.854	0.681	0.634	0.626
$\alpha=55^\circ\ \beta=60^\circ$	20	0.835	0.799	0.756	0.732	0.650

附表 6 层面陡倾顺向结构边坡安全稳定率

Attached Table 6 Safety stability rate of the layered steep slope forward structure

产状	结构面迹长 L/m	结构面强度				
		1	2	3	4	5
倾向：275°	10	0.961	0.953	0.941	0.941	0.937
倾角：65°	15	0.941	0.933	0.921	0.917	0.913
$\alpha=5^\circ\ \beta=65^\circ$	20	0.929	0.913	0.894	0.890	0.886
倾向：275°	10	0.965	0.965	0.957	0.957	0.953
倾角：75°	15	0.969	0.961	0.949	0.949	0.945
$\alpha=5^\circ\ \beta=75^\circ$	20	0.957	0.945	0.933	0.925	0.921
倾向：275°	10	0.957	0.957	0.953	0.953	0.937
倾角：85°	15	0.941	0.937	0.925	0.921	0.917
$\alpha=5^\circ\ \beta=85^\circ$	20	0.921	0.917	0.898	0.894	0.890
倾向：285°	10	0.965	0.957	0.949	0.945	0.945
倾角：65°	15	0.941	0.933	0.917	0.917	0.909
$\alpha=15^\circ\ \beta=65^\circ$	20	0.941	0.929	0.917	0.913	0.909
倾向：285°	10	0.961	0.953	0.949	0.945	0.945
倾角：75°	15	0.961	0.953	0.937	0.933	0.929
$\alpha=15^\circ\ \beta=75^\circ$	20	0.953	0.941	0.929	0.925	0.917
倾向：285°	10	0.961	0.957	0.949	0.949	0.945
倾角：85°	15	0.945	0.925	0.925	0.921	0.917
$\alpha=15^\circ\ \beta=85^\circ$	20	0.929	0.909	0.898	0.894	0.886
倾向：295°	10	0.961	0.953	0.945	0.941	0.937
倾角：65°	15	0.937	0.925	0.913	0.909	0.906
$\alpha=25^\circ\ \beta=65^\circ$	20	0.933	0.917	0.902	0.898	0.890
倾向：295°	10	0.961	0.961	0.953	0.949	0.945
倾角：75°	15	0.961	0.953	0.941	0.937	0.933
$\alpha=25^\circ\ \beta=75^\circ$	20	0.957	0.929	0.913	0.909	0.906
倾向：295°	10	0.949	0.953	0.945	0.941	0.941
倾角：85°	15	0.945	0.945	0.937	0.929	0.925
$\alpha=25^\circ\ \beta=85^\circ$	20	0.917	0.913	0.902	0.902	0.898

附表 7 层面弱面顺向结构边坡安全稳定率

Attached Table 7 Safety stability rate of the layered weak surface forward structure

结构面产状	结构面迹长 L/m	结构面强度		
		3	4	5
倾向：275°	10	0.492	0.402	0.283
倾角：20°	15	0.421	0.343	0.232
$\alpha=5^\circ\ \beta=20^\circ$	20	0.406	0.343	0.228
倾向：275°	10	0.870	0.862	0.843
倾角：30°	15	0.386	0.303	0.217
$\alpha=5^\circ\ \beta=30^\circ$	20	0.268	0.220	0.146
倾向：275°	10	0.886	0.878	0.866
倾角：40°	15	0.748	0.579	0.472
$\alpha=5^\circ\ \beta=40^\circ$	20	0.335	0.260	0.173
倾向：275°	10	0.898	0.894	0.890
倾角：50°	15	0.850	0.846	0.839
$\alpha=5^\circ\ \beta=50^\circ$	20	0.807	0.795	0.780
倾向：285°	10	0.539	0.437	0.311
倾角：20°	15	0.429	0.354	0.240
$\alpha=15^\circ\ \beta=20^\circ$	20	0.413	0.350	0.232
倾向：285°	10	0.890	0.878	0.866
倾角：30°	15	0.472	0.311	0.209
$\alpha=15^\circ\ \beta=30^\circ$	20	0.272	0.220	0.150
倾向：285°	10	0.902	0.894	0.886
倾角：40°	15	0.732	0.709	0.618
$\alpha=15^\circ\ \beta=40^\circ$	20	0.433	0.331	0.220
倾向：285°	10	0.913	0.909	0.906

倾角：50°	15	0.827	0.819	0.811
$\alpha=15^\circ$ $\beta=50^\circ$	20	0.768	0.752	0.728
倾向：295°	10	0.528	0.429	0.287
倾角：20°	15	0.461	0.374	0.252
$\alpha=25^\circ$ $\beta=20^\circ$	20	0.425	0.358	0.240
倾向：295°	10	0.890	0.878	0.866
倾角：30°	15	0.472	0.311	0.209
$\alpha=25^\circ$ $\beta=30^\circ$	20	0.272	0.220	0.150
倾向：295°	10	0.882	0.874	0.862
倾角：40°	15	0.630	0.472	0.394
$\alpha=25^\circ$ $\beta=40^\circ$	20	0.311	0.217	0.146
倾向：295°	10	0.894	0.890	0.882
倾角：50°	15	0.807	0.795	0.780
$\alpha=25^\circ$ $\beta=50^\circ$	20	0.673	0.626	0.425

附表 8 碎裂散状结构边坡安全稳定率

Attached Table 8 Safety stability rate of slopes with cataclastic structure

结构面密度 D	结构面强度			
/单位面积多边形数目	2	3	4	5
0.005	0.563	0.299	0.236	0.161
0.010	0.476	0.252	0.205	0.138
0.015	0.571	0.315	0.256	0.173
0.020	0.547	0.295	0.232	0.161
0.025	0.591	0.323	0.260	0.173
0.030	0.583	0.311	0.252	0.169
0.035	0.547	0.303	0.248	0.165
0.040	0.524	0.283	0.232	0.154

附表 9 倾倒结构边坡安全稳定率

Attached Table 9 Safety stability rate of toppling structure

结构面产状	结构面倾角 $\beta2$/°	贯穿型结构面强度 1	2	3	4	5
反向结构：$\alpha1=5^\circ$ $\beta1=-45^\circ$ 贯穿型结构面：$\alpha2=0^\circ$	20	0.539	0.535	0.343	0.299	0.205
	30	0.445	0.421	0.248	0.205	0.138
	40	0.421	0.331	0.177	0.146	0.098
	50	0.567	0.287	0.146	0.118	0.075
陡倾顺向结构：$\alpha1=5^\circ$ $\beta1=75^\circ$ 贯穿型结构面：$\alpha2=0^\circ$	20	0.598	0.362	0.370	0.307	0.213
	30	0.449	0.445	0.244	0.201	0.134
	40	0.421	0.335	0.181	0.146	0.098
	50	0.579	0.299	0.146	0.114	0.079

注：$\alpha1$为反向结构面或陡倾顺向结构面与坡面走向的夹角；$\alpha2$为贯穿型结构面与坡面走向的夹角；$\beta1$为反向结构面或陡倾顺向结构面的倾角；$\beta2$为贯穿型结构面的倾角，$\beta1$ 与$\beta2$为“+”时表示与坡面倾向相同，否则相反。