

Supplementary Material Table S1 - Post-Processing Operation Results

Test Area	operation	recall	precision	f1-score	iou
1	opening	0.48	0.56	0.52	0.35
1	closing	0.47	0.57	0.52	0.35
1	erosion	0.55	0.46	0.50	0.33
1	dilation	0.40	0.65	0.50	0.33
1	binary_opening + binary_closing	0.48	0.56	0.52	0.35
1	binary_opening + binary_erosion	0.55	0.46	0.50	0.33
1	binary_opening + binary_dilation	0.42	0.64	0.50	0.34
1	binary_closing + binary_opening	0.48	0.56	0.52	0.35
1	binary_closing + binary_erosion	0.55	0.46	0.50	0.33
1	binary_closing + binary_dilation	0.40	0.65	0.50	0.33
1	binary_erosion + binary_opening	0.56	0.44	0.50	0.33
1	binary_erosion + binary_closing	0.55	0.46	0.50	0.33
1	binary_erosion + binary_dilation	0.48	0.56	0.52	0.35
1	binary_dilation + binary_opening	0.56	0.44	0.50	0.33
1	binary_dilation + binary_closing	0.55	0.46	0.50	0.33
1	binary_dilation + binary_erosion	0.48	0.56	0.52	0.35
1	binary_opening + binary_closing + binary_dilation	0.55	0.46	0.50	0.33
1	binary_closing + binary_dilation + binary_erosion	0.48	0.56	0.52	0.35
1	binary_dilation + binary_erosion + binary_opening	0.48	0.56	0.52	0.35
1	binary_erosion + binary_opening + binary_closing	0.40	0.65	0.50	0.33
1	binary_opening + binary_closing + binary_erosion + binary_dilation	0.48	0.56	0.52	0.35
1	binary_closing + binary_erosion + binary_dilation + binary_opening	0.48	0.56	0.52	0.35
1	binary_erosion + binary_dilation + binary_opening + binary_closing	0.48	0.56	0.52	0.35

1	binary_dilation + binary_opening + binary_closing + binary_erosion	0.47	0.57	0.51	0.35
2	opening	0.50	0.56	0.53	0.36
2	closing	0.50	0.57	0.53	0.36
2	erosion	0.55	0.47	0.51	0.34
2	dilation	0.44	0.65	0.53	0.36
2	binary_opening + binary_closing	0.50	0.56	0.53	0.36
2	binary_opening + binary_erosion	0.55	0.47	0.51	0.34
2	binary_opening + binary_dilation	0.45	0.63	0.53	0.36
2	binary_closing + binary_opening	0.50	0.56	0.53	0.36
2	binary_closing + binary_erosion	0.55	0.48	0.51	0.34
2	binary_closing + binary_dilation	0.44	0.65	0.53	0.36
2	binary_erosion + binary_opening	0.57	0.46	0.51	0.34
2	binary_erosion + binary_closing	0.55	0.47	0.51	0.34
2	binary_erosion + binary_dilation	0.50	0.56	0.53	0.36
2	binary_dilation + binary_opening	0.57	0.46	0.51	0.34
2	binary_dilation + binary_closing	0.55	0.47	0.51	0.34
2	binary_dilation + binary_erosion	0.50	0.56	0.53	0.36
2	binary_opening + binary_closing + binary_dilation	0.55	0.47	0.51	0.34
2	binary_closing + binary_dilation + binary_erosion	0.50	0.56	0.53	0.36
2	binary_dilation + binary_erosion + binary_opening	0.50	0.56	0.53	0.36
2	binary_erosion + binary_opening + binary_closing	0.44	0.65	0.53	0.36
2	binary_opening + binary_closing + binary_erosion + binary_dilation	0.50	0.56	0.53	0.36
2	binary_closing + binary_erosion + binary_dilation + binary_opening	0.50	0.56	0.53	0.36
2	binary_erosion + binary_dilation + binary_opening + binary_closing	0.50	0.56	0.53	0.36
2	binary_dilation + binary_opening + binary_closing + binary_erosion	0.49	0.57	0.53	0.36
3	opening	0.57	0.62	0.59	0.42
3	closing	0.55	0.65	0.60	0.42
3	erosion	0.61	0.42	0.50	0.33

3	dilation	0.48	0.81	0.60	0.43
3	binary_opening + binary_closing	0.56	0.63	0.59	0.42
3	binary_opening + binary_erosion	0.61	0.42	0.50	0.33
3	binary_opening + binary_dilation	0.50	0.78	0.61	0.44
3	binary_closing + binary_opening	0.56	0.63	0.59	0.42
3	binary_closing + binary_erosion	0.61	0.43	0.50	0.34
3	binary_closing + binary_dilation	0.48	0.81	0.60	0.43
3	binary_erosion + binary_opening	0.64	0.37	0.47	0.31
3	binary_erosion + binary_closing	0.61	0.42	0.50	0.33
3	binary_erosion + binary_dilation	0.57	0.62	0.59	0.42
3	binary_dilation + binary_opening	0.64	0.37	0.47	0.31
3	binary_dilation + binary_closing	0.61	0.42	0.50	0.33
3	binary_dilation + binary_erosion	0.57	0.62	0.59	0.42
3	binary_opening + binary_closing + binary_dilation	0.61	0.43	0.50	0.34
3	binary_closing + binary_dilation + binary_erosion	0.56	0.63	0.59	0.42
3	binary_dilation + binary_erosion + binary_opening	0.57	0.62	0.59	0.42
3	binary_erosion + binary_opening + binary_closing	0.48	0.81	0.60	0.43
3	binary_opening + binary_closing + binary_erosion + binary_dilation	0.56	0.63	0.59	0.42
3	binary_closing + binary_erosion + binary_dilation + binary_opening	0.56	0.63	0.59	0.42
3	binary_erosion + binary_dilation + binary_opening + binary_closing	0.56	0.63	0.59	0.42
3	binary_dilation + binary_opening + binary_closing + binary_erosion	0.55	0.65	0.60	0.43