## **Supplementary Materials-Test Images**



Figure S1: Test images at three typical moments under the process conditions of 95A, 19V, and 23cm/min.



Figure S2: Test images at three typical moments under the process conditions of 95A, 19V, and 26cm/min.

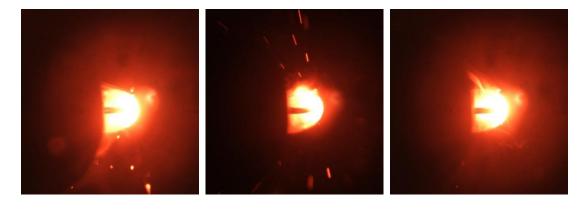


Figure S3: Test images at three typical moments under the process conditions of 125A, 19V, and 26cm/min.

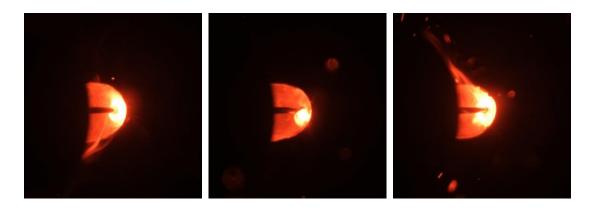


Figure S4: Test images at three typical moments under the process conditions of  $125A,\,23V,\,$  and 23cm/min.



Figure S5: Test images at three typical moments under the process conditions of  $145A,\,21V,\,$  and 29cm/min.



Figure S6: Test images at three typical moments under the process conditions of  $145A,\,23V,\,$  and 21cm/min.

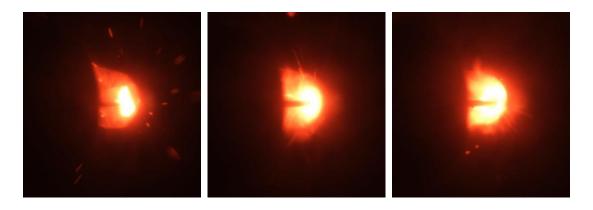


Figure S7: Test images at three typical moments under the process conditions of  $150A,\,19V,\,\text{and}\,26\text{cm/min}.$ 



Figure S8: Test images at three typical moments under the process conditions of  $150A,\,20V,\,$  and 26cm/min.

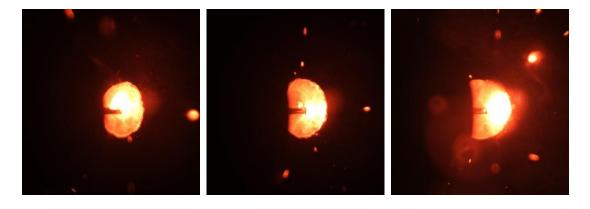


Figure S9: Test images at three typical moments under the process conditions of  $150A,\,21V,\,\text{and}\,23\text{cm/min}.$ 

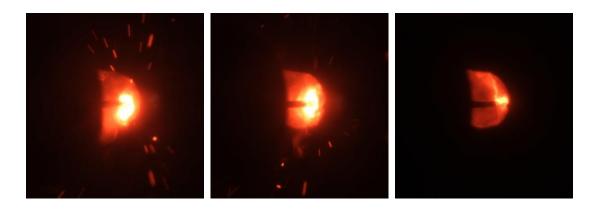


Figure S10: Test images at three typical moments under the process conditions of  $150A,\,21V,\,$  and 26cm/min.

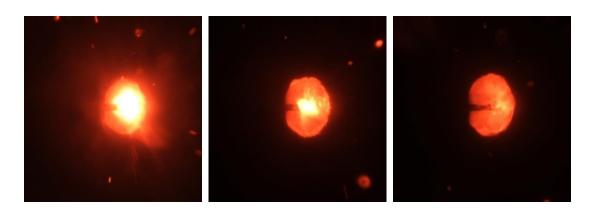


Figure S11: Test images at three typical moments under the process conditions of  $150A,\,21V,\,$  and 29cm/min.

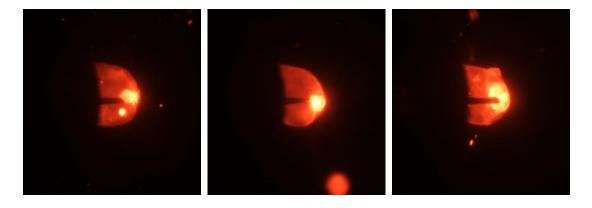


Figure S12: Test images at three typical moments under the process conditions of  $150A,\,23V,\,$  and 26cm/min.