

Explosion during an electrolysis experiment in an open cell mass flow calorimeter

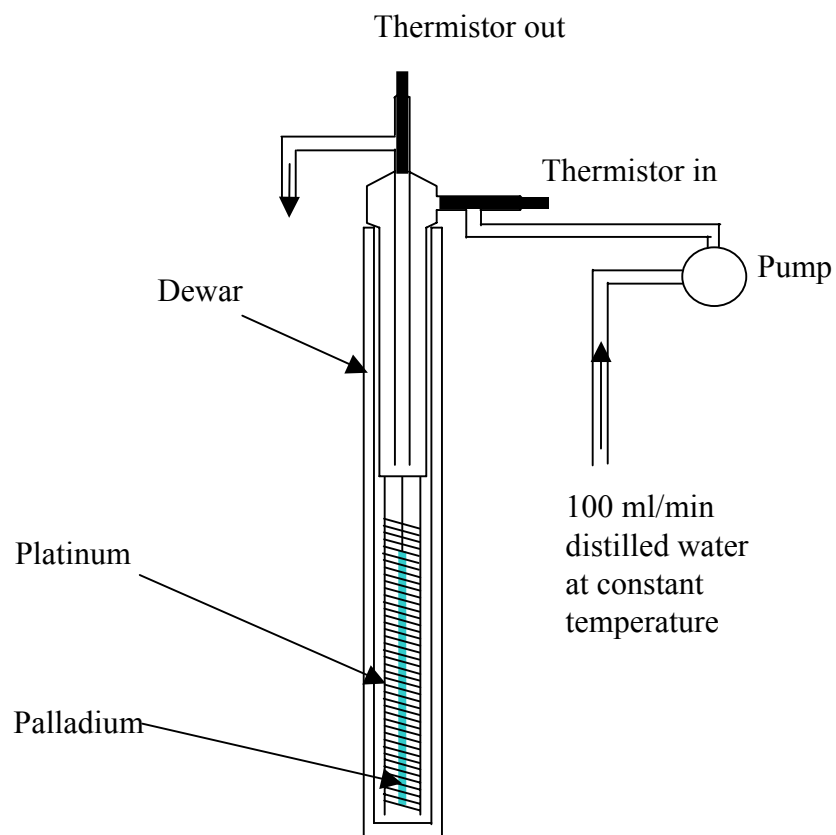
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Experimental set-up



Experimental conditions

- Cathode : Palladium tube length:10 cm, diameter 2mm
- Anode :Platinum wire
- Electrolyte : LiOD 0.1N
- Maximum gas volume 120 ml
- DC current
- Calorimeter efficiency 95%

The cell

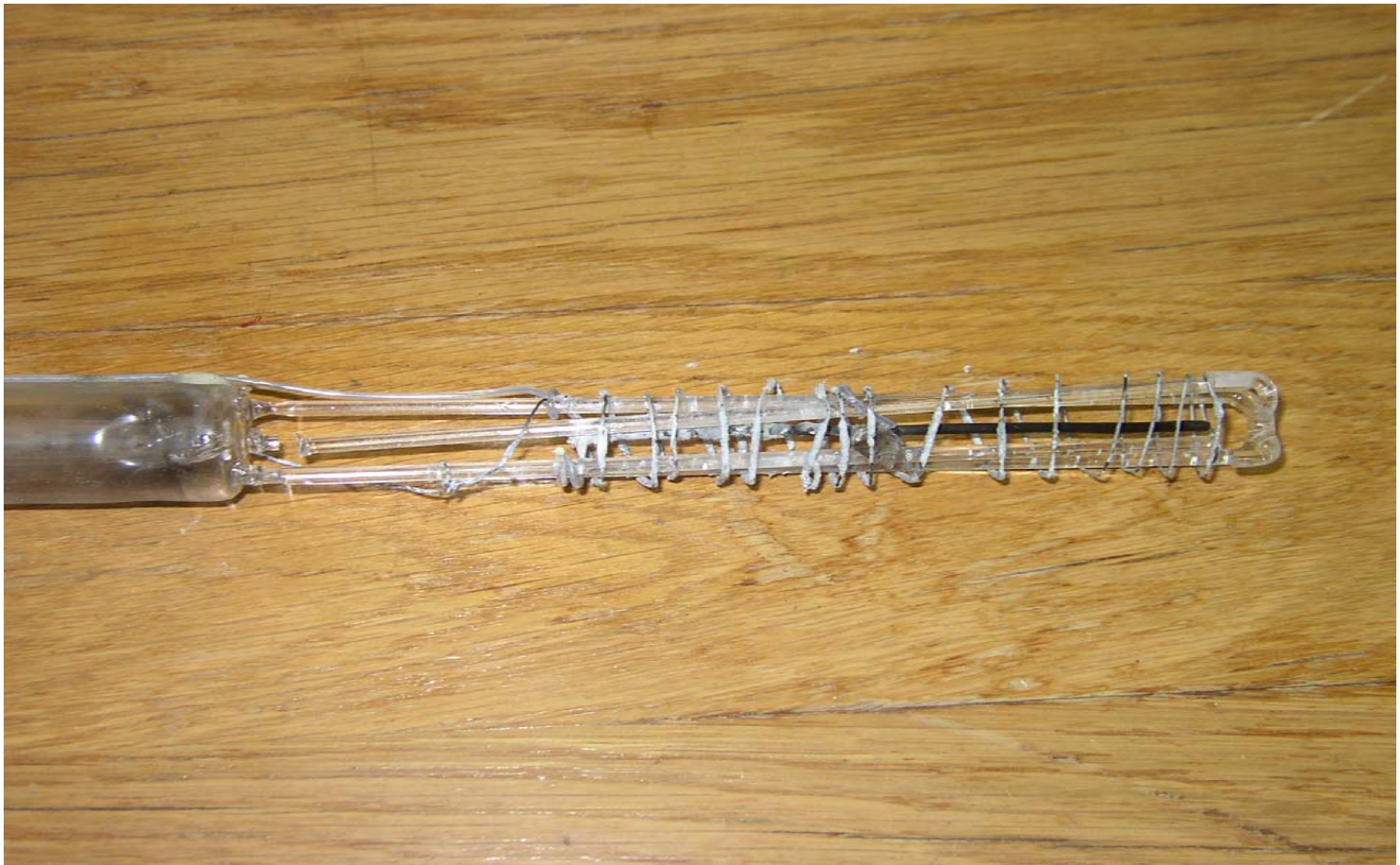


The cell after!



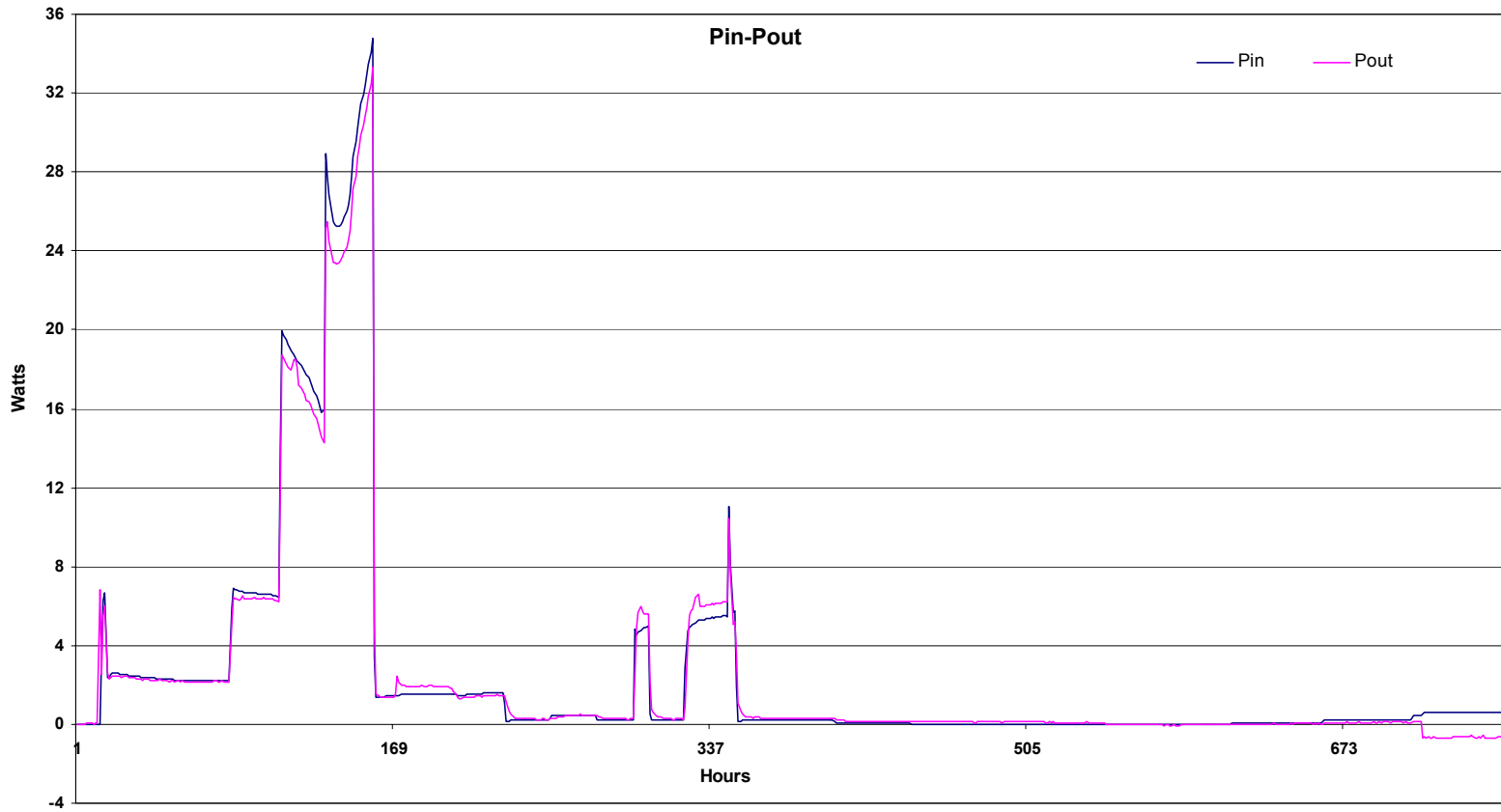
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Electrode after explosion

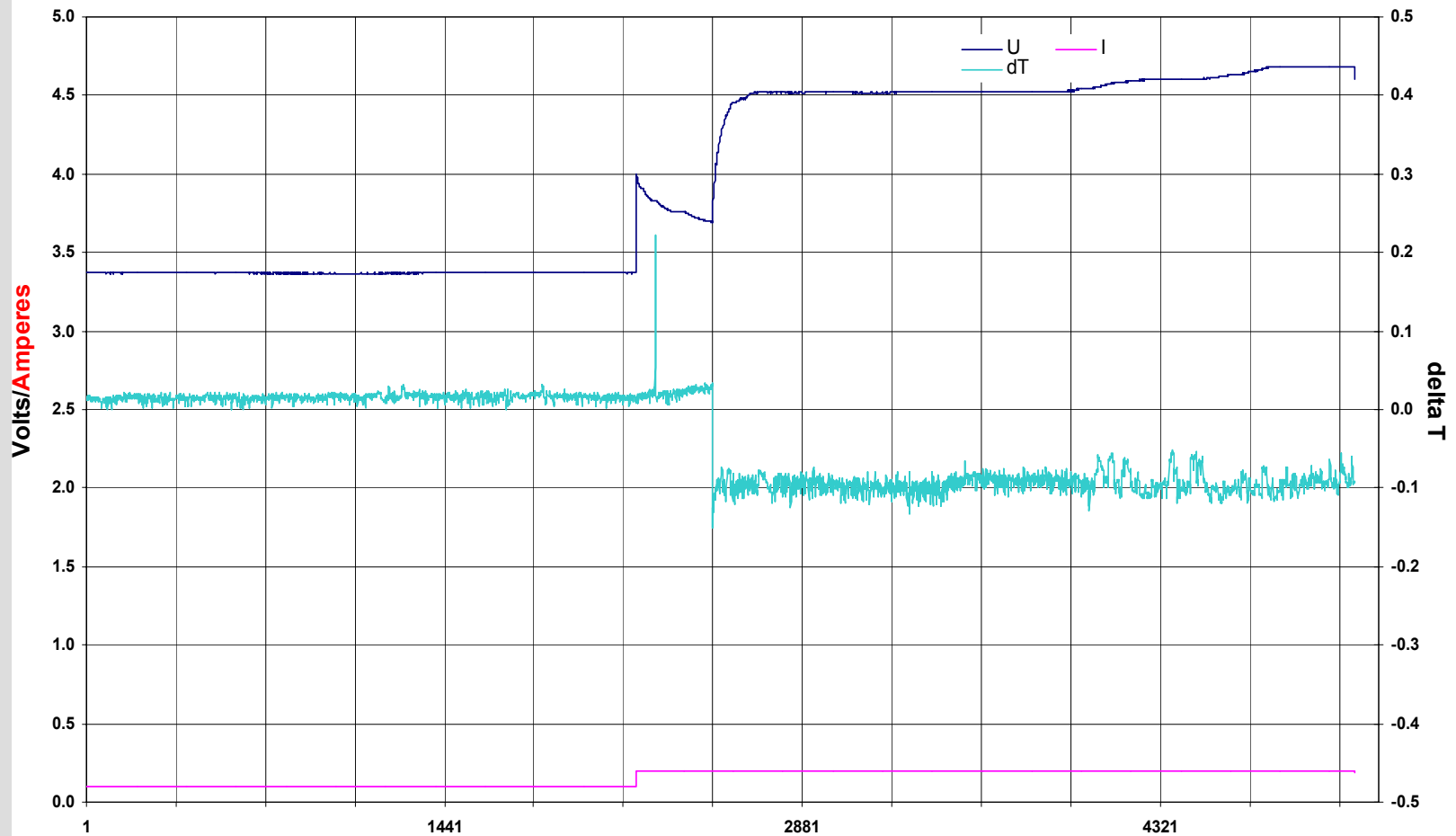


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Pin-Pout



Last two days



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Conclusion

- The explosion occurred during an endothermic phase
- Open cell calorimetry
- Maximum available gas: 120 ml
- Don't seem to be a deuterium-oxygen explosion
- What then?



