

INK-JF060

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Tags: Ir ATO

Category: INK

Status: Success

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Ink Preparation Calculation Results

1. Catalyst Information

- Catalyst: ATS-JF060
- Composition: Ir 1.0
- Support: ATO

1. Catalyst Inputs

- Catalyst Stock Metal Concentration: 2.5 mg/ml
- Metal Loading on Support: 50 wt%
- Target Metal Loading on Electrode: 50 $\mu\text{g}/\text{cm}^2$
- Electrode Area: 0.196 cm^2

1. Ink Design Targets

- Final Ink Volume: 1 ml
- Target Metal Concentration in Ink: 2 mg/ml

1. Binder Inputs

- Binder Stock Concentration: 5 wt%
- Binder Calculation Mode: content
- Target Binder Content: 25 wt%

1. Calculated Results

- Required Catalyst Stock Volume: 800.0 μl
- Required Binder Stock Volume: 28.86 μl
- Remaining Solvent Volume to Add: 171.14 μl
- Geometric Binder Loading: 33.33 $\mu\text{g}/\text{cm}^2$
- Required Ink Volume to Drop-cast: 4.9 μl

Procedure

The ink was prepared according to the parameters above. A mixture of 2:1 water:iPrOH was used as solvent. The ink was sonicated very shortly (5-10 seconds) with a sonication horn at 20% to increase dispersion.

Linked experiment

Synt Autoclave (ATS) - [ATS-JF060](#)



Unique eLabID: 20250514-7669ca8abc63c7802c185d9b376810a189825272
Link: <https://elabftw.dcbp.unibe.ch/experiments.php?mode=view&id=8>