Supporting information

Design and Application of a Gas Diffusion Electrode (GDE) Cell for Operando and *In Situ* Studies

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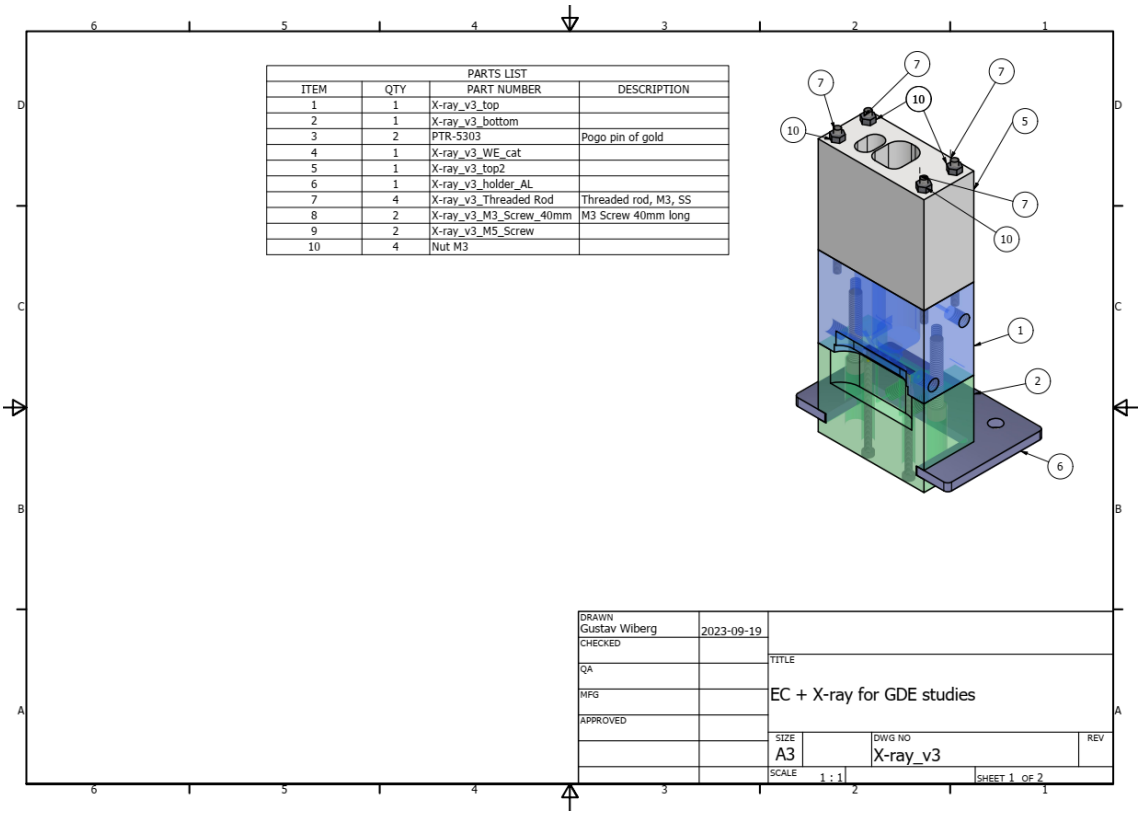
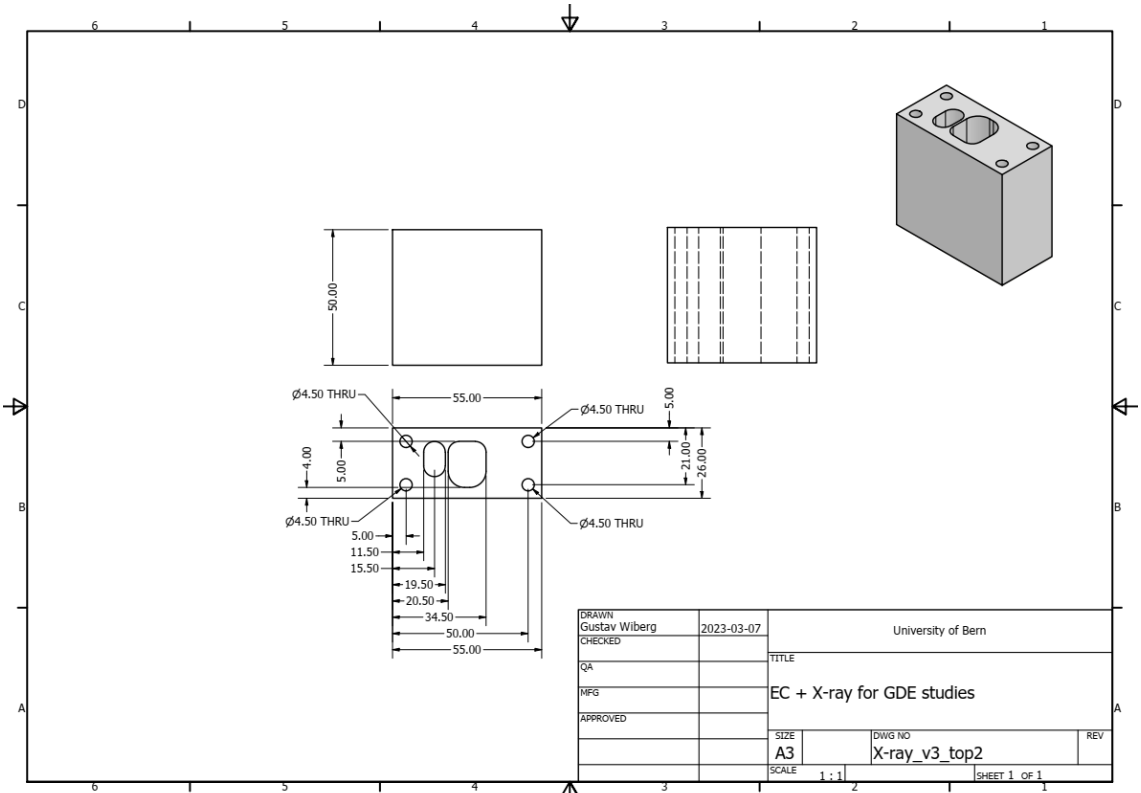
Table S1. Refined values obtained from Rietveld refinement of the XRD patterns, the SAXS fit with polydispersity (PD) and the PDF fits, performed for scattering data collected for the Pt/C commercial catalysts at 0.9 V vs RHE and during ORR at 0.4 V vs RHE.

	XRD					**SAXS**			**PDF**			
Potential vs RHE	Lattice constant *a* (Å)	domain size (Å)	Micro strain ($\Delta d/d\ 10^6$)	U_{iso} (Å^2)	Rw	A_1	Radius (median) (Å)	*PD*	*a (Å)*	*Sp diameter* (Å)*r*	U_{iso} (Å^2)	*Rw*
0.4 V	3.924(1)	49(7)	2285(80)	0.007(1)	0.02	$8.74E^{-5}$	21.8	0.24	3.915	47	0.007	0.15
0.9 V	3.927(1)	49(5)	1700(35)	0.007(1	0.02	$8.01E^{-5}$	21.9	0.24	3.918	48	0.006	0.14

Below the technical drawings of the cell components are presented. The files are available upon request.



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	X-ray_v3_top	
2	1	X-ray_v3_bottom	
3	2	PTR-5303	Pogo pin of gold
4	1	X-ray_v3_WE_cat	
5	1	X-ray_v3_top2	
6	1	X-ray_v3_holder_AL	
7	4	X-ray_v3_Threaded Rod	Threaded rod, M3, SS
8	2	X-ray_v3_M3_Screw_40mm	M3 Screw 40mm long
9	2	X-ray_v3_M5_Screw	
10	4	Nut M3	



DRAWN Gustav Wiberg	2023-03-07	University of Bern
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APPROVED		
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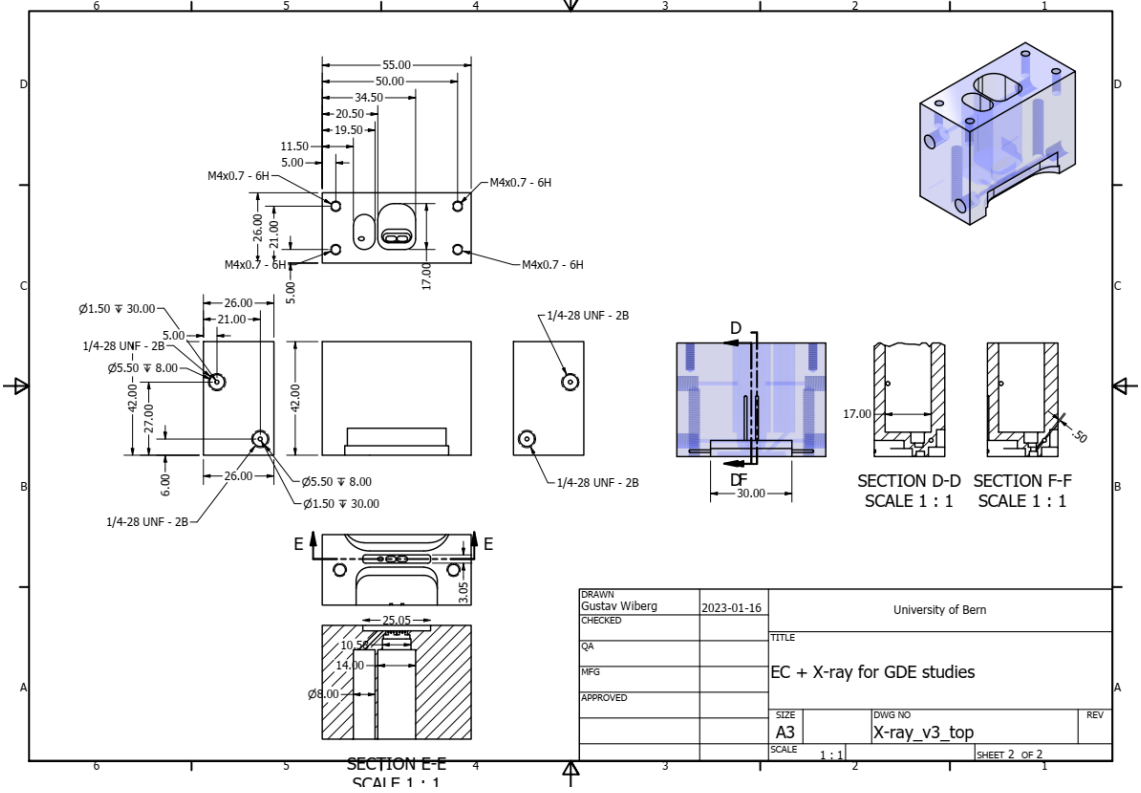

DRAWN Gustav Wiberg	2023-01-16	University of Bern
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MFG		
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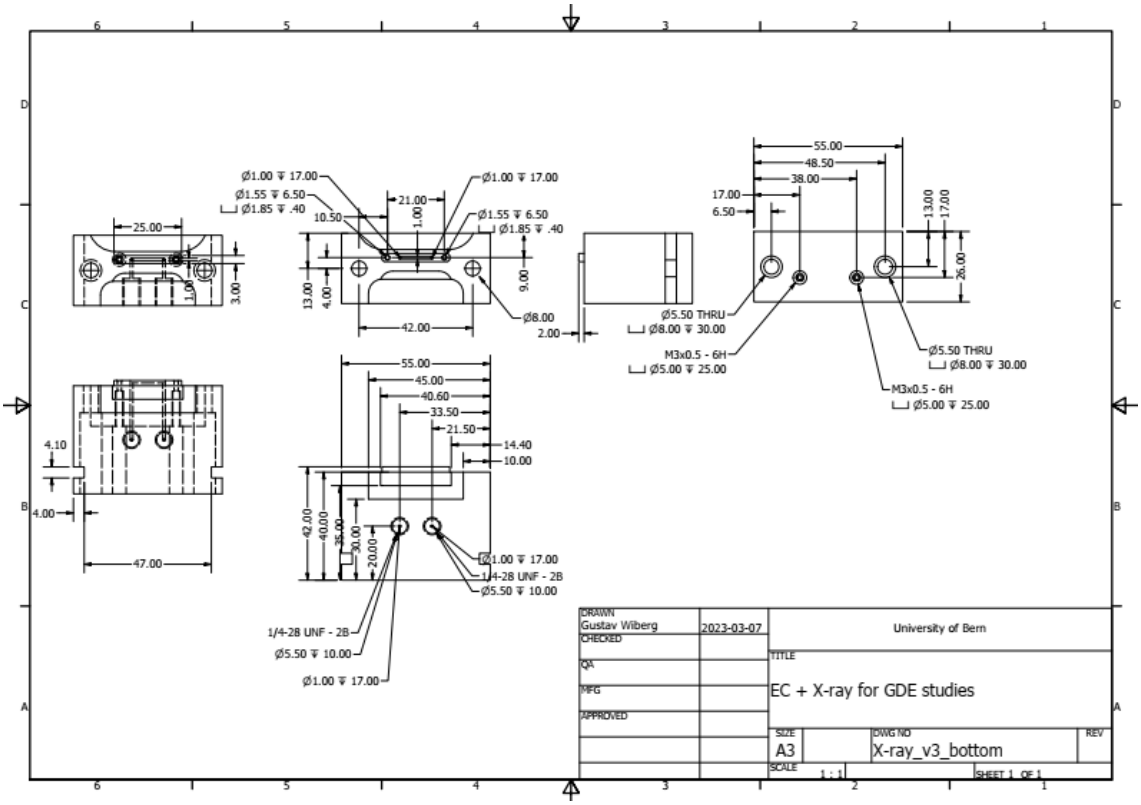
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10.50
21.00
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48.50
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Ø5.50 THRU
Ø8.00 ↧ 30.00
M3x0.5 - 6H
Ø5.00 ↧ 25.00
4.10
4.00
47.00
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33.50
21.50
14.40
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1/4-28 UNF - 2B
Ø5.50 ↧ 10.00
DRAWN
Gustav Wilberg
2023-03-07
CHECKED
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MFG
APPROVED
University of Bern
TITLE
EC + X-ray for GDE studies
SIZE
A3
DWG NO
X-ray_v3_bottom
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SHEET 1 OF 1