

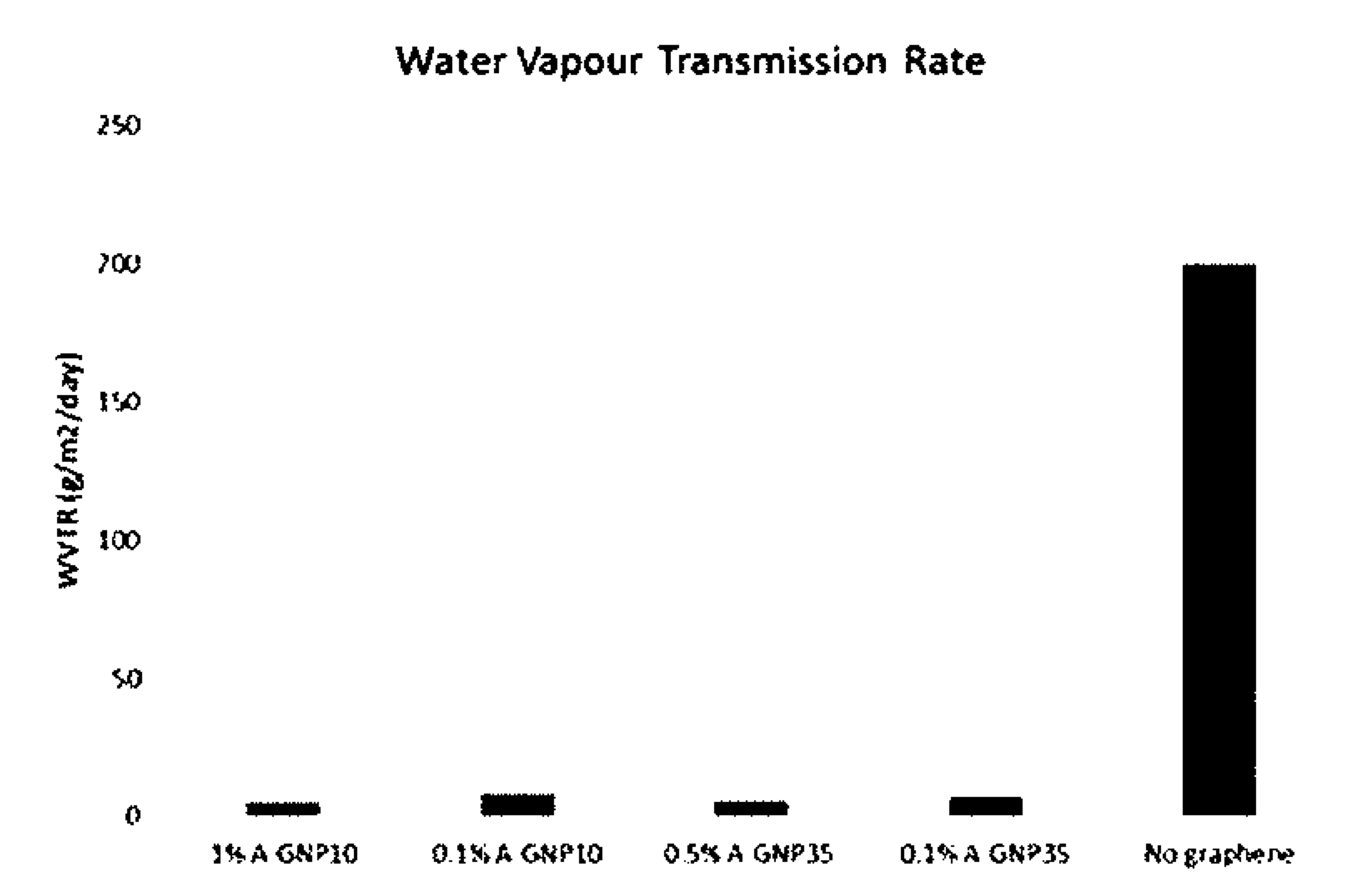


Table 1

Composition	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Constituant	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %
1 - Epoxy	21.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34	11.34
2 - Adhesion resin	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3 - Dispersant	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
4 - Aromatic solvent	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02
5 - Bentonite Thixotrope	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
6 - White Pigment	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18
7 - Zinc Phosphate	0.00	0.00	0.00	8.00	4.00	0.00	0.00	0.00	8.00	4.00	0.00	0.00	0.00	8.00	4.00	0.00	0.00	0.00
7 - Inhibisil	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00
7 - Shieldex	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
7 - Pigmentan E	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
8 - Filler	44.47	44.47	44.47	36.47	40.47	43.47	43.47	43.47	36.47	40.47	43.47	43.47	43.47	36.47	40.47	43.47	43.47	43.47
9 - AGNP35	0.000	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.100	0.100	0.100	0.100
9 - AGNP10	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.000
10 - Epoxy	0.000	9.500	9.900	10.000	10.000	10.000	10.000	10.000	9.500	9.500	9.500	9.500	9.500	9.900	9.900	9.900	9.900	9.900
11 - Aliphatic solvent	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68	15.68
12 - Epoxy	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 2

Assessment 1000 Hours						
Composition	Creep (mm)	Blistering	Corrosion		Comments	
		Quantity	Size (ISO 4628-2 :2005)		ISO 4628-3 :2005)	
1	>10	0	S0		Ri5	
2	>10	0	S4		Ri5	
3	3	0	S0		Ri3	
4	4	1	S3		Ri5	
5	8	1	S3		Ri5	
6	5	0	S4		Ri5	
7	3	0	S0		Ri3	
8	8	2	S4		Ri5	
9	2	0	S0		Ri1	
10	4	0	S0		Ri0	
11	3	2	S2		Ri0	
12	1	0	S0		Ri2	
13	2	0	S0		Ri0	
14	2	0	S0		Ri2	
15	>10	0	S0		Ri5	
16	6	4	S3		Ri2	
17	>10	3	S4		Ri5	
18	<1	0	S0		Ri0	

Table 3

Assessment 2000 hours						
Composition	Creep (mm)	Blistering	Corrosion	Comments		
		Quantity	Size (ISO 4628-2 :2005)	Corrosion	(ISO 4628-3 :2005)	
1	>10	0	S0	Ri5	Very poor	
2	>10	0	S4	Ri5	Corroded across whole face	
3	>10	0	S0	Ri3	Corrosion spotting across face	
4	>10	1	S3	Ri5	Corroded across face	
5	8	1	S3	Ri5	Corroded across face	
6	>10	0	S4	Ri5	Corroded across whole face	
7	>10	0	S0	Ri5	Corrosion spots start	
8	>10	2	S4	Ri5	Corroded across whole face	
9	>10	0	S0	Ri5	Corrosion spotting across face	
10	4	0	S0	Ri0	Good	
11	>10	2	S2	Ri5	Corroded across whole face	
12	1	0	S0	Ri2	Good	
13	>10	0	S0	Ri5	Corroded across half panel	
14	3	0	S0	Ri2	Corrosion spotting across face	
15	>10	0	S0	Ri5	Completely corroded	
16	>10	4	S3	Ri5	Small corrosion spots across face	
17	>10	3	S4	Ri5	Corroded across whole face	
18	<1	0	S0	Ri0	Good	

Table 4

Assessment 3000 Hours					
Composition	Creep (mm)	Blistering		Corrosion	
		Quantity	Size (ISO 4628-2 :2005)		
1	>10	0	S0	Ri5	Very poor
2	>10	0	S4	Ri5	Corroded across whole face
3	5	0	S0	Ri3	Corrosion spotting across face
4	>10	1	S3	Ri5	Corroded across face
5	>10	1	S3	Ri5	Corroded across face
6	>10	0	S4	Ri5	Corroded across whole face
7	>10	0	S0	Ri5	Corrosion spots start
8	>10	2	S4	Ri5	Corroded across whole face
9	>10	0	S0	Ri5	Corrosion spotting across face
10	4	0	S0	Ri0	Good
11	>10	2	S2	Ri5	Corroded across whole face
12	1	0	S0	Ri2	Good
13	>10	0	S0	Ri5	Corroded across half panel
14	>10	0	S0	Ri5	Corrosion spotting across face
15	>10	0	S0	Ri5	Completely corroded
16	>10	4	S3	Ri5	Small corrosion spots across face
17	>10	3	S4	Ri5	Corroded across whole face
18	<1	0	S0	Ri0	Good

Table 5

Assessment 4000 Hours						
Composition	Creep (mm)	Blistering Quantity	Size (ISO)	Corrosion	Comments	
			(ISO 4628-2 :2005)	(ISO 4628-3 :2005)		
1	>10	0	S0	Ri5	Very poor	
2	>10	0	S4	Ri5	Corroded across whole face	
3	>10	0	S0	Ri5	Corrosion spotting across face	
4	>10	1	S3	Ri5	Corroded across face	
5	>10	1	S3	Ri5	Corroded across face	
6	>10	0	S4	Ri5	Corroded across whole face	
7	>10	0	S0	Ri5	Corrosion spots start	
8	>10	2	S4	Ri5	Corroded across whole face	
9	>10	0	S0	Ri5	Corrosion spotting across face	
10	5	1	S2	Ri2	Corrosion spreading from scribe	
11	>10	2	S2	Ri5	Corroded across whole face	
12	1	0	S0	Ri2	Good	
13	>10	0	S0	Ri5	Corroded across half panel	
14	>10	0	S0	Ri5	Corrosion spotting across face	
15	>10	0	S0	Ri5	Completely corroded	
16	>10	4	S3	Ri5	Small corrosion spots across face	
17	>10	3	S4	Ri5	Corroded across whole face	
18	5	1	S0	Ri4	Half corroded	

Table 6

Impact Resistance										
Composition number	Cracking begins: Height (cm) 1Kg Weight									
	10	20	30	40	50	60	70	80	90	100
1		x								
2	x									
3	x									
4		x								
5	x									
6		x								
7	x									
8	x									
9					x					
10						x				
11	x									
12	x									
13	x									
14	x									
15			x							
16	x									
17	x									
18	x									

Table 7

Abrasion Resistance				
Composition number	Initial Mass (g)	Final Mass (g)	Mass Loss (mg)	Wear Rating
1	67.9412	67.9023	38.9	389
2	67.4874	67.4414	46	460
3	66.4083	66.3544	53.9	539
4	66.8564	66.8217	34.7	347
5	68.1364	68.1008	35.6	356
6	68.1826	68.1543	28.3	283
7	68.0394	68.0097	29.7	297
8	67.8543	67.8034	50.9	509
9	67.3164	67.263	53.4	534
10	67.2025	67.1745	28	280
11	67.8742	67.842	32.2	322
12	67.3551	67.3154	39.7	397
13	67.2149	67.1692	45.7	457
14	67.0665	67.0396	26.9	269
15	67.6039	67.5674	36.5	365
16	66.7089	66.6539	55	550
17	67.1761	67.1399	36.2	362
18	66.8288	66.7935	35.3	353

Table 8

Adhesion				
Composition number	Force (mPa)		Average	Comment
	Rating 1	Rating 2		
1	2	2.25	2.13	50% Adhesive failure
2	3	3.5	3.25	100% Cohesive
3	1.5	2	1.75	100% Cohesive
4	2	2	2.00	50% Adhesive failure
5	1.25	1.25	1.25	50% Adhesive failure
6	3.25	2	2.63	85% Adhesive failure
7	2.8	2.8	2.80	20% Adhesive 80% Cohesive
8	2.5	3	2.75	25% Adhesive 75% Cohesive
9	1	1	1.00	100% Cohesive
10	1.5	1.9	1.70	5% Adhesive 95% Cohesive
11	2.8	3	2.90	60% Adhesive 40% Cohesive
12	1.5	1.8	1.65	Glue failure
13	3.25	3.5	3.38	25% Adhesive 75% Cohesive
14	2	0.8	1.40	100% Cohesive
15	1.75	2	1.88	70% Adhesive 30% Cohesive
16	1	1.2	1.10	100% Adhesive
17	2.25	2.8	2.53	100% Cohesive
18	1	1.25	1.13	95% Adhesive 5% Cohesive

Table 9

Flexibility		
Composition number	Cracking (mm)	Elongation %
1	0	<35
2	120	3
3	12	19
4	4	21
5	4	21
6	4	21
7	4	21
8	6	23
9	100	5
10	0	<35
11	0	<35
12	0	<35
13	120	3
14	120	3
15	11	19
16	0	<35
17	120	3
18	80	5

Table 10

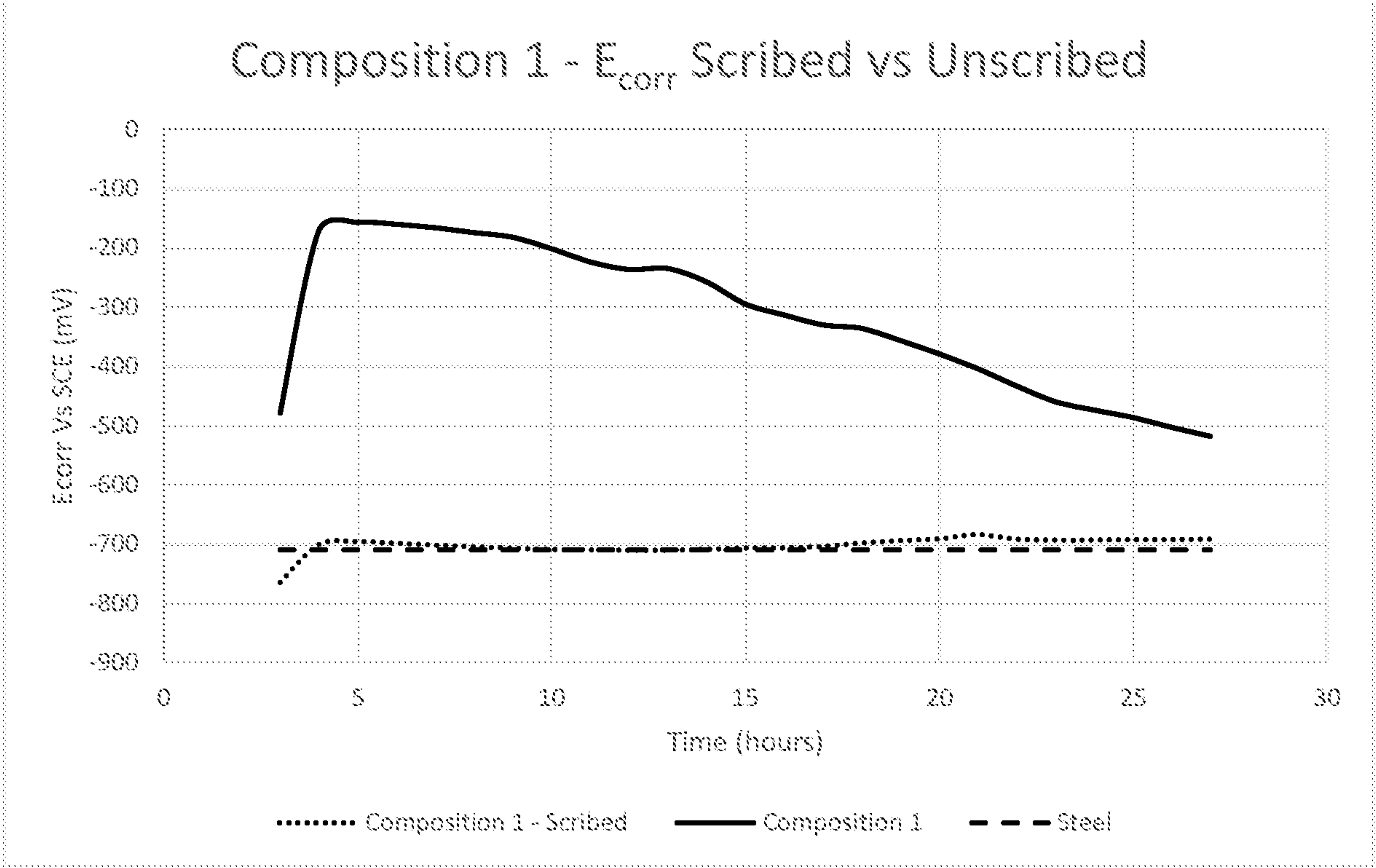


Table 11

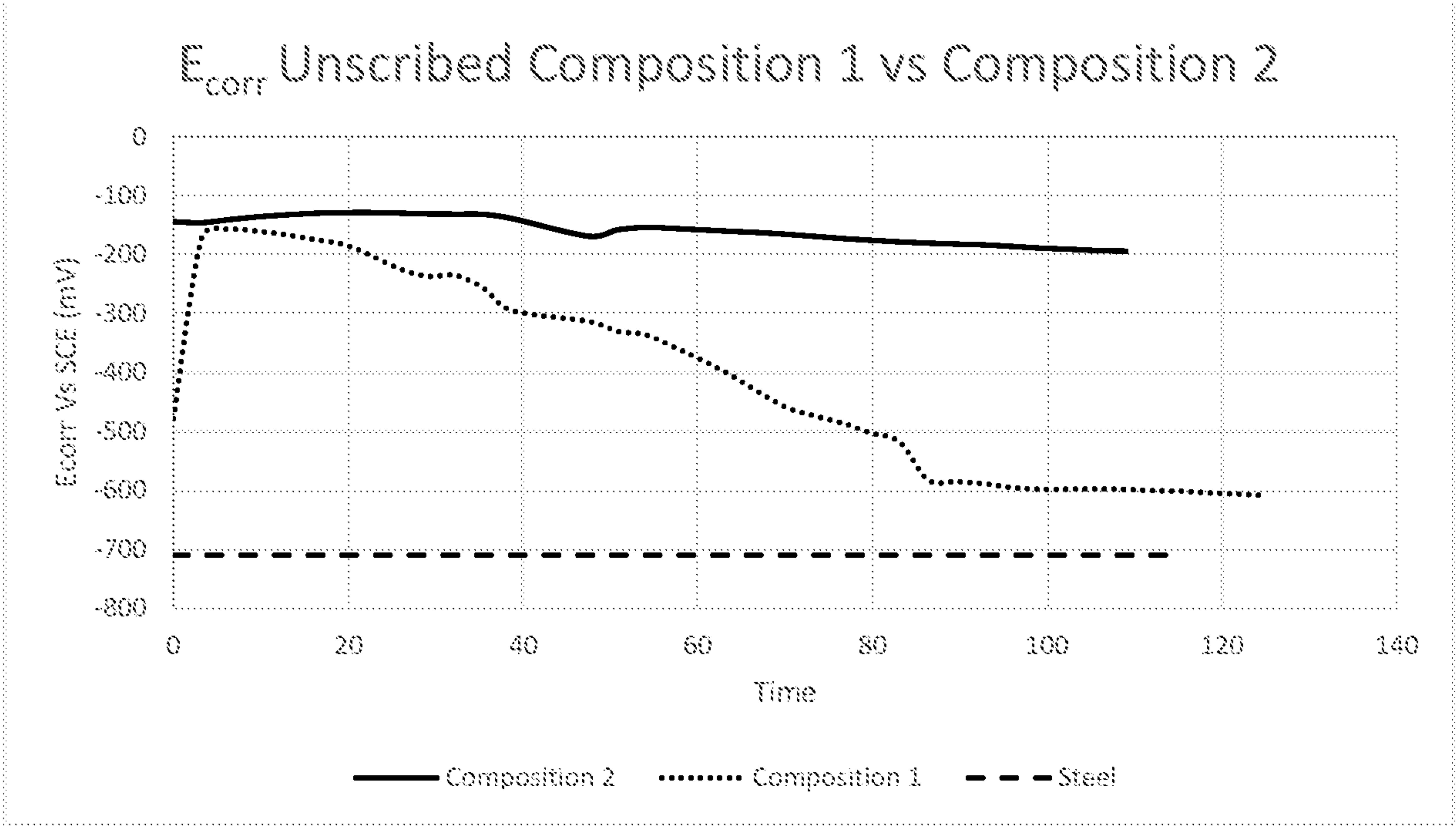


Table 12

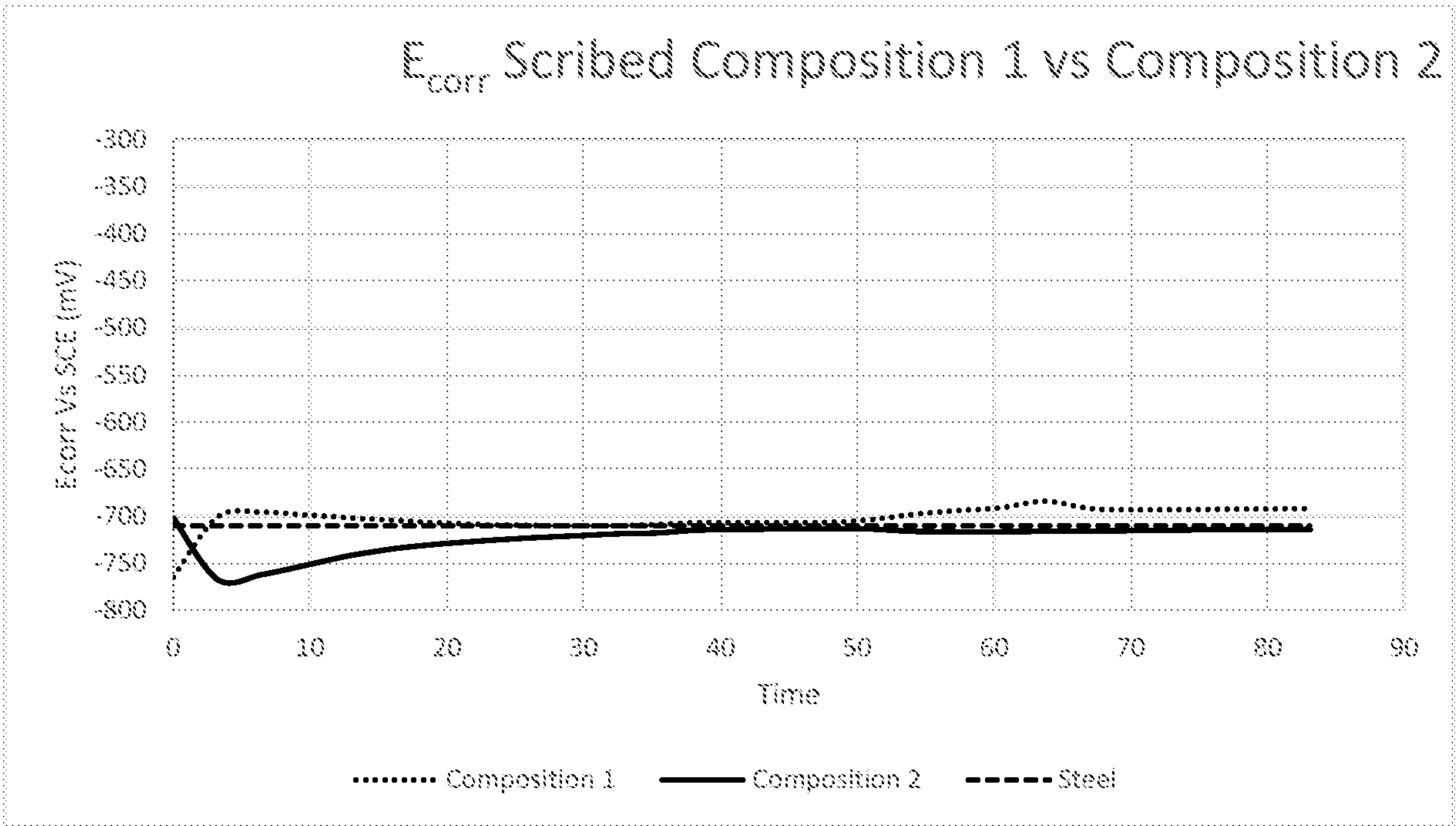


Table 13

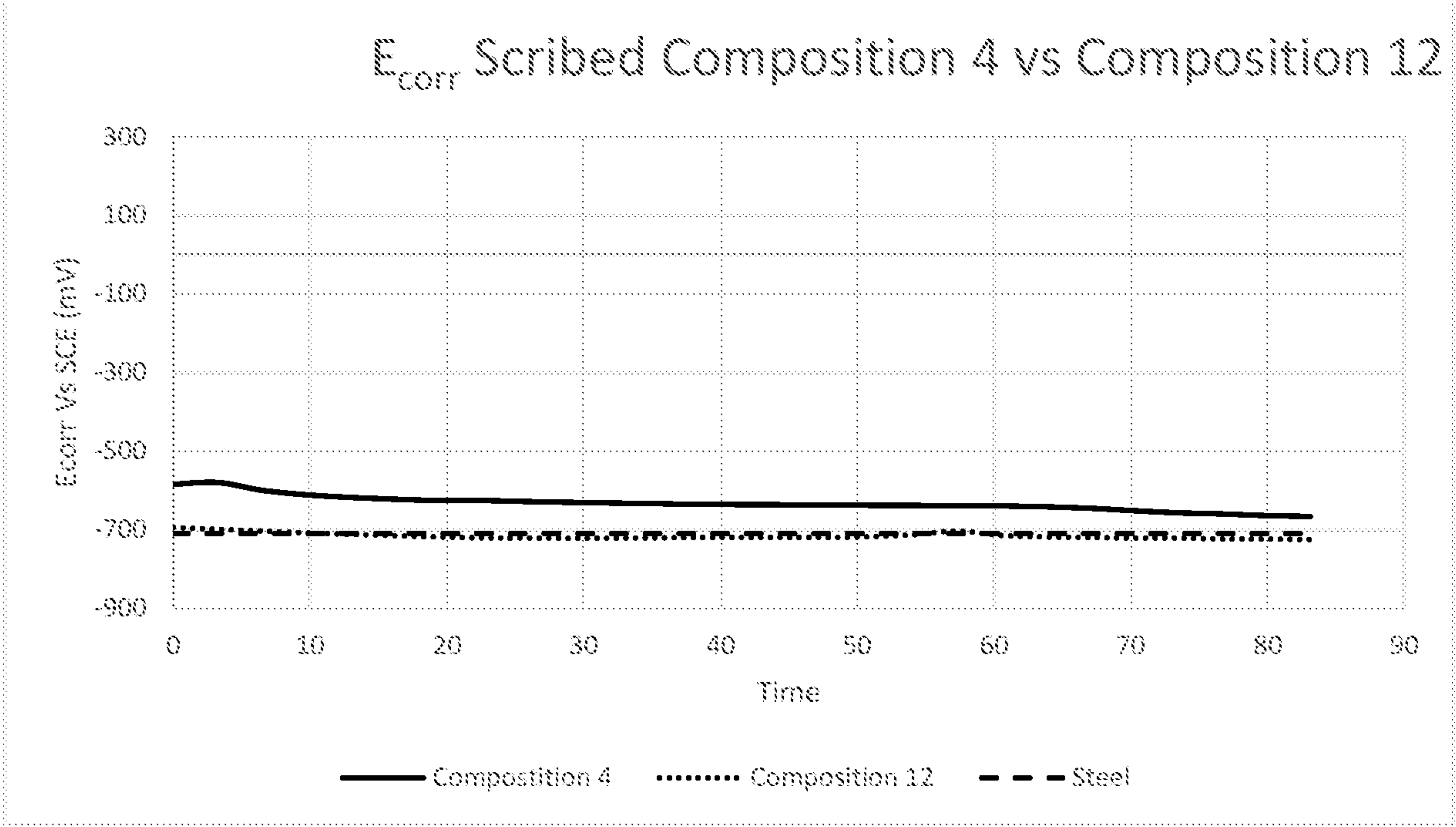


Table 14

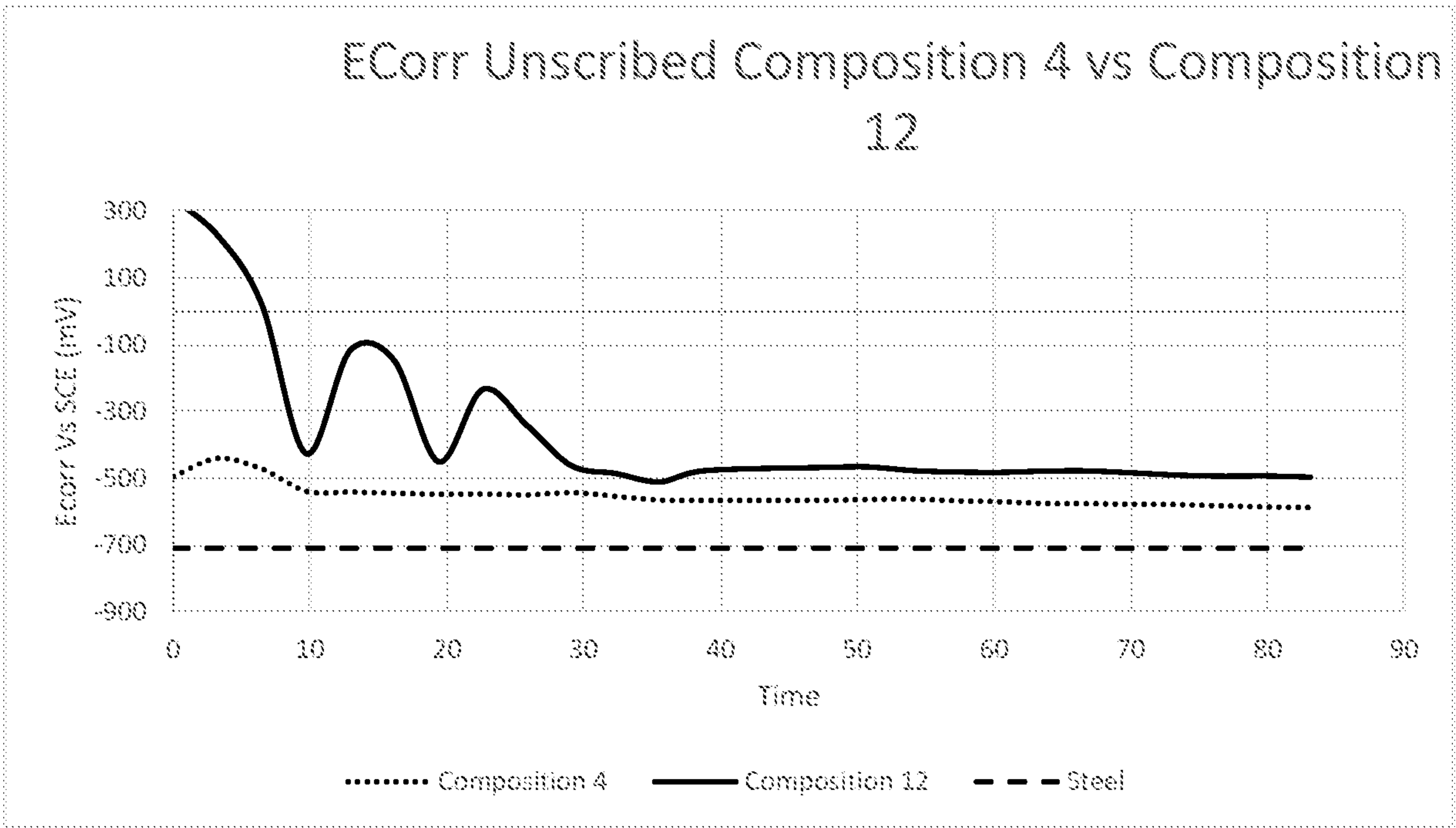


Table 15

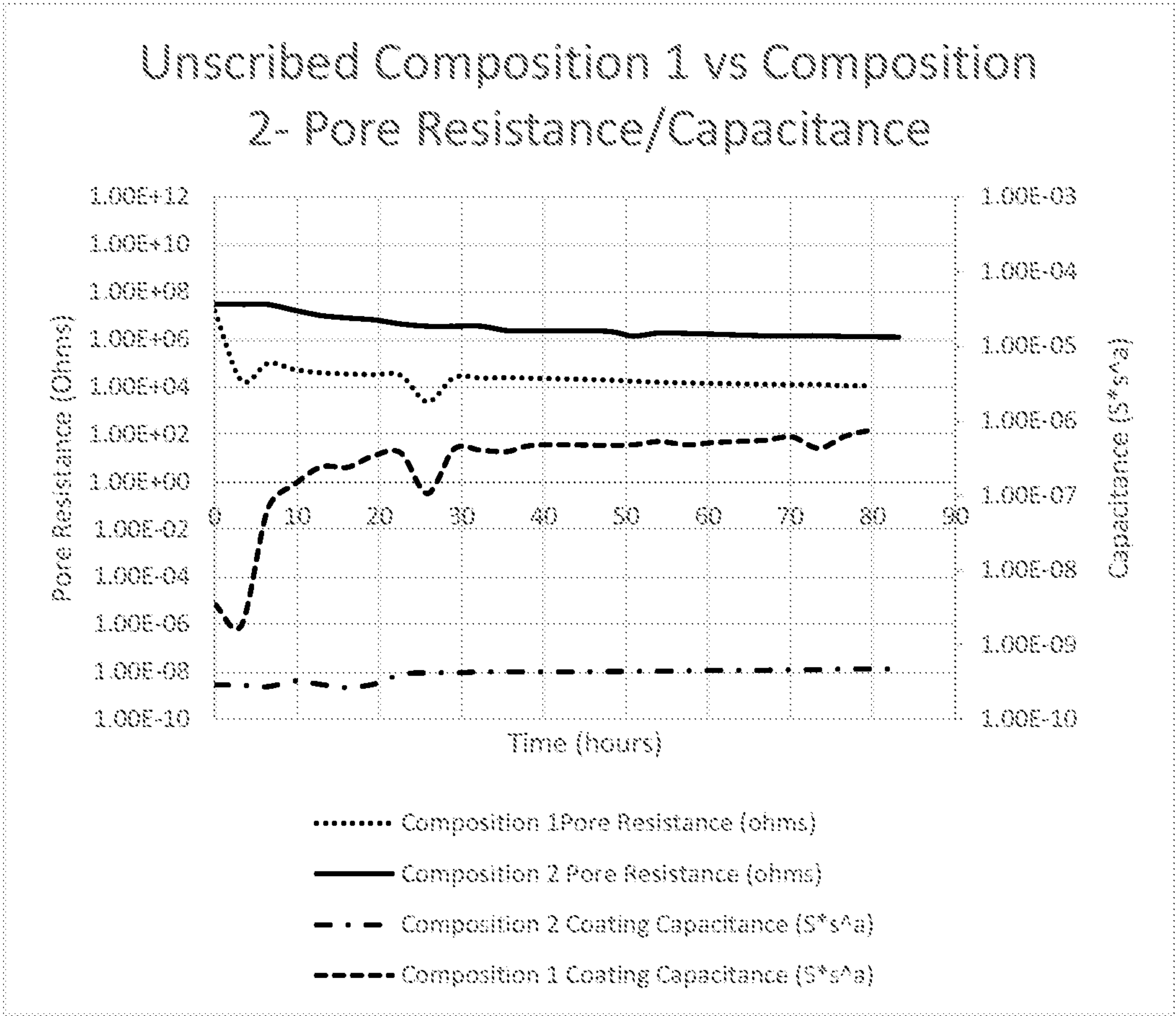


Table 16

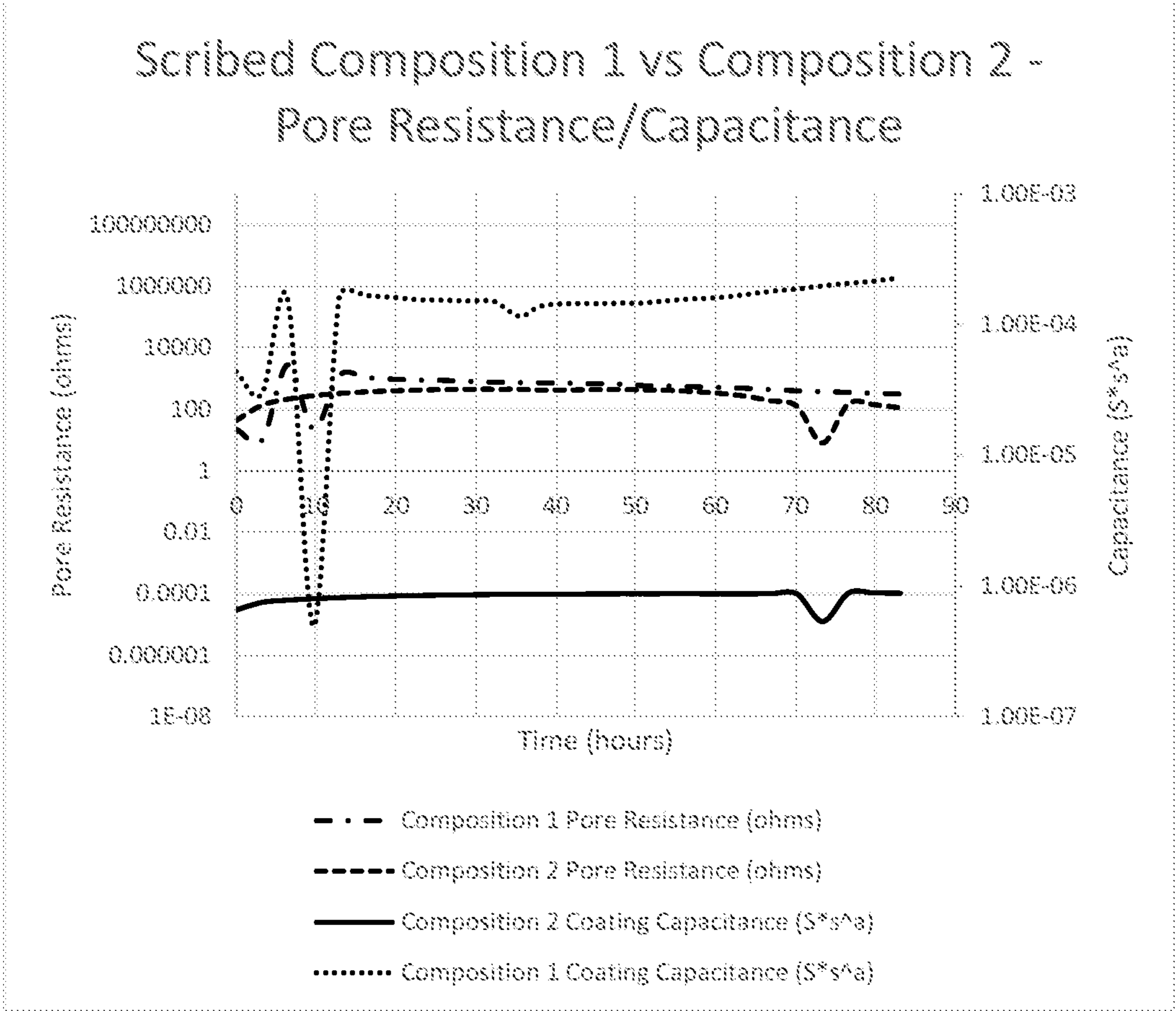


Table 17

Unscribed Composition 4 vs Composition 12 Pore Resistance/Coating Capacitance

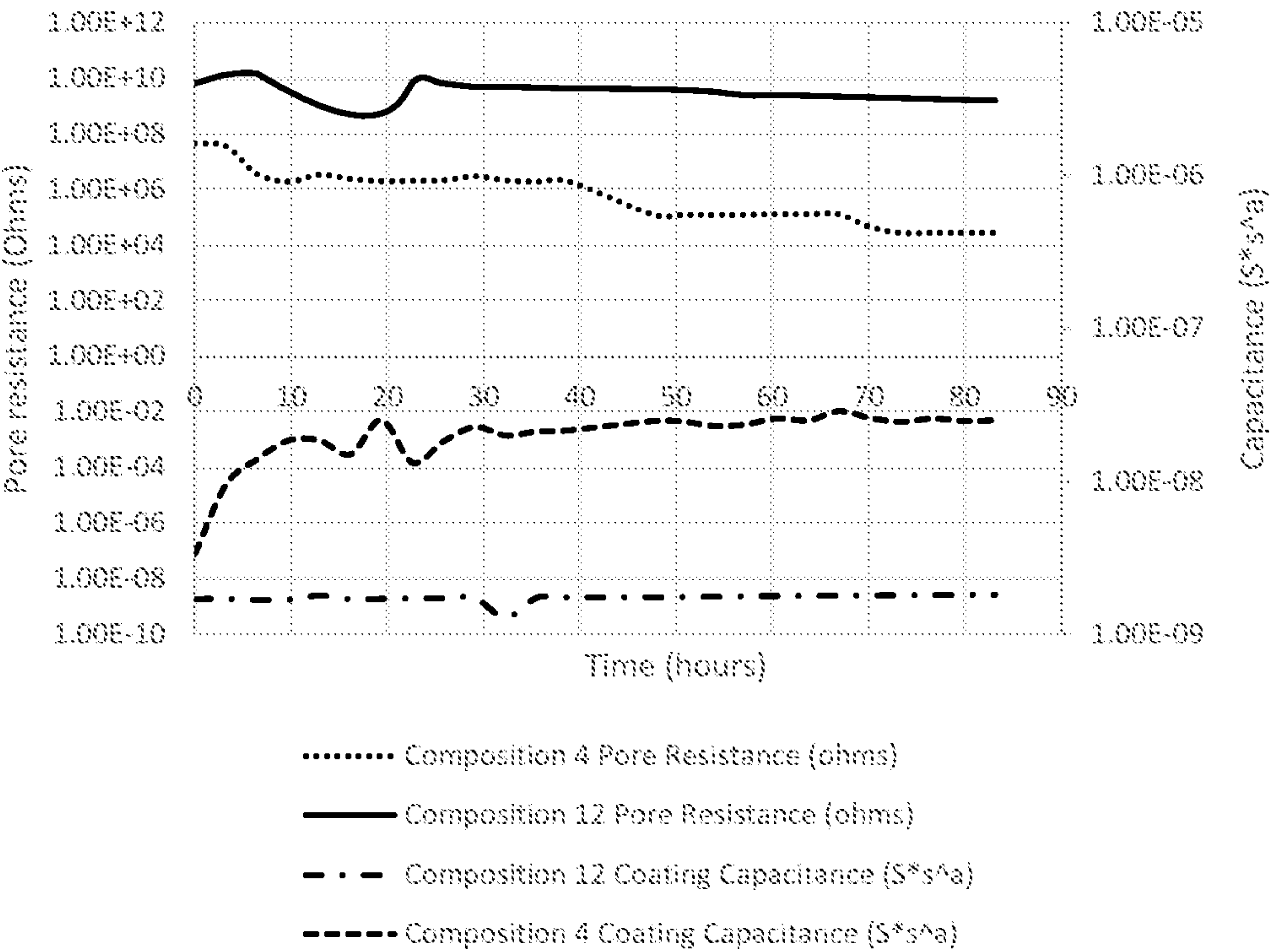


Table 18

Scribed Composition 4 vs Composition 12
- Pore Resistance/Coating Capacitance

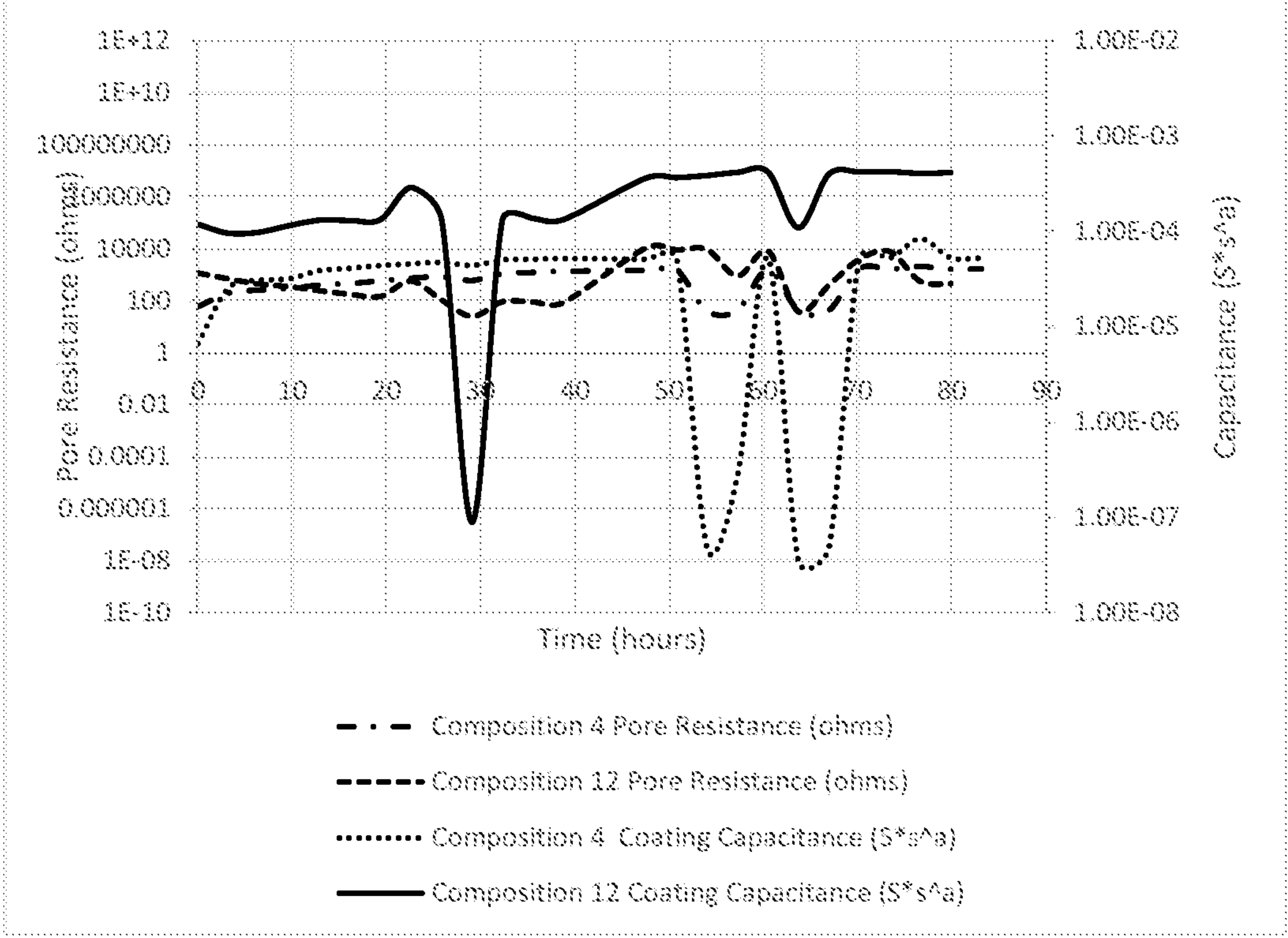


Table 19

Unscribed Composition 1 vs Composition
2 - Double Layer Capacitance

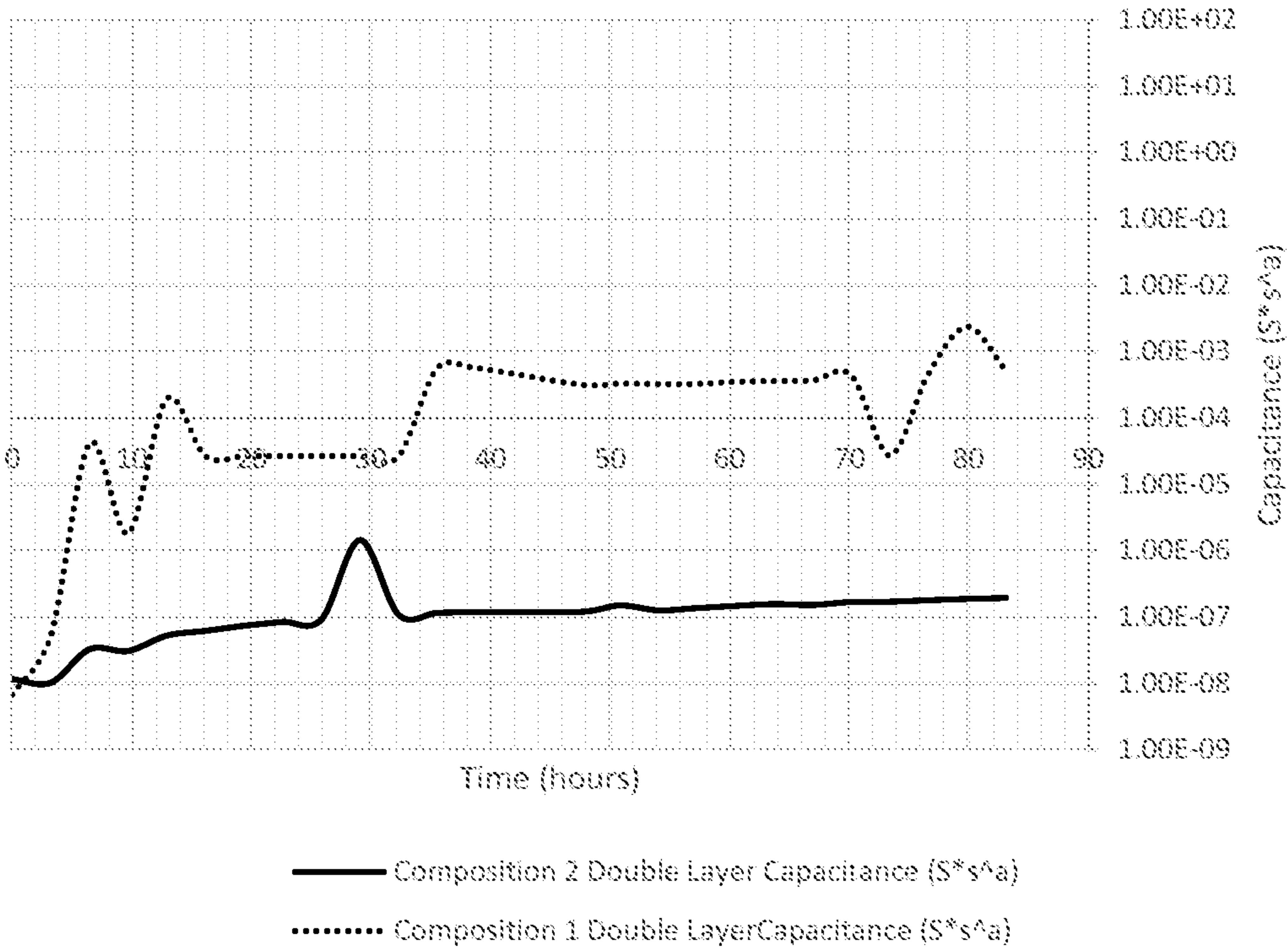


Table 20

Scribed Composition 1 vs Composition 2 -
Double Layer Capacitance

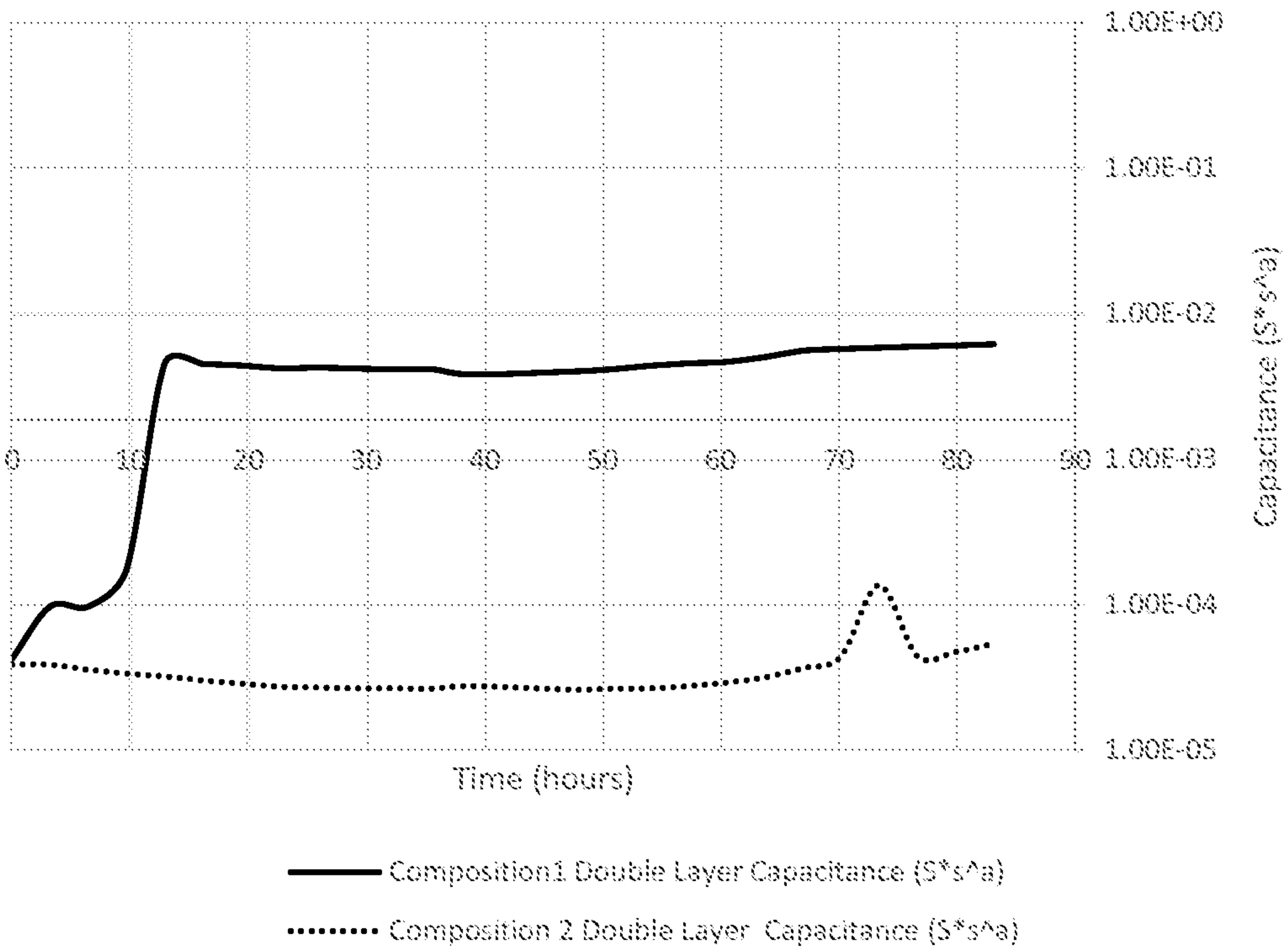


Table 21

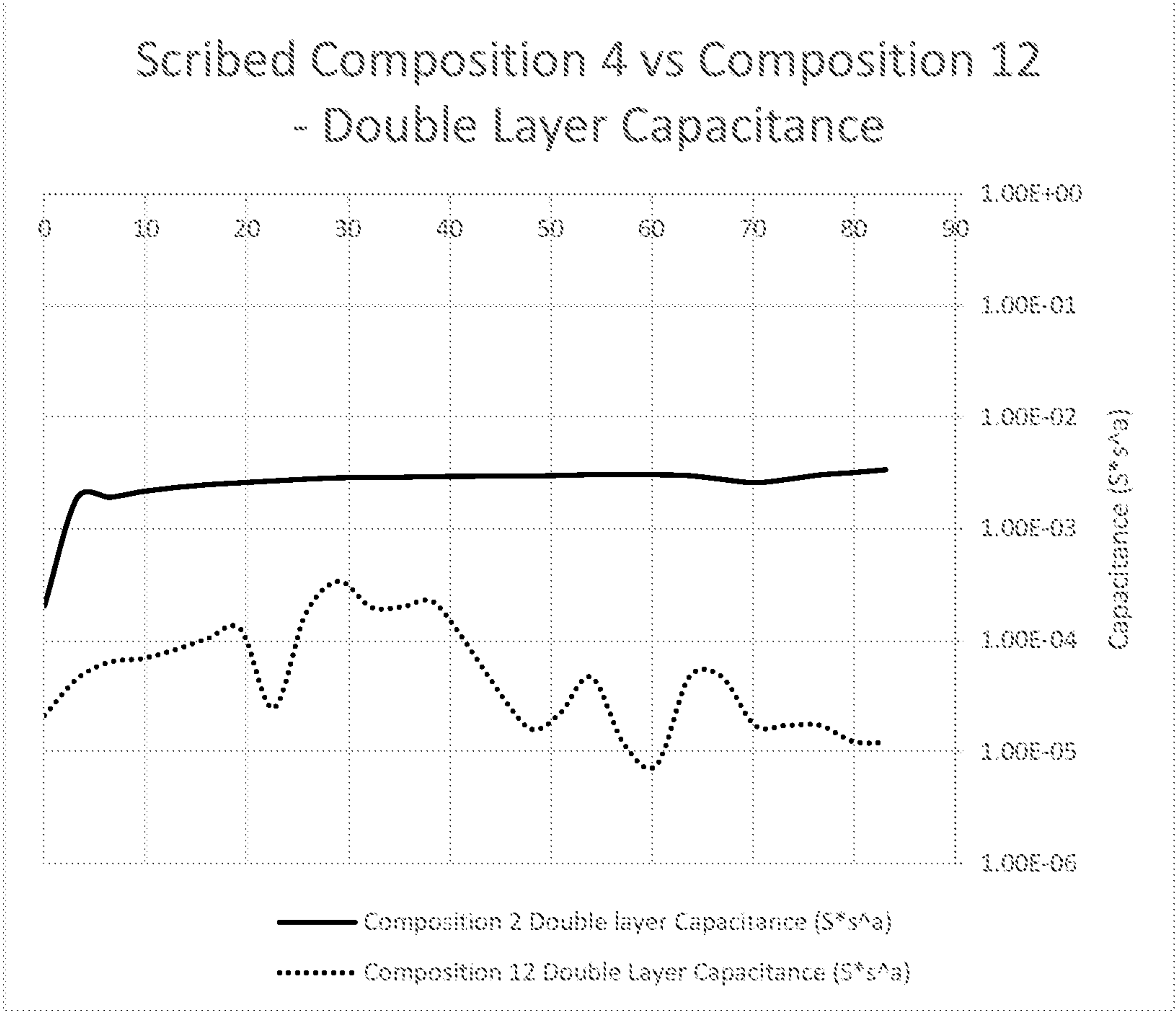


Table 22

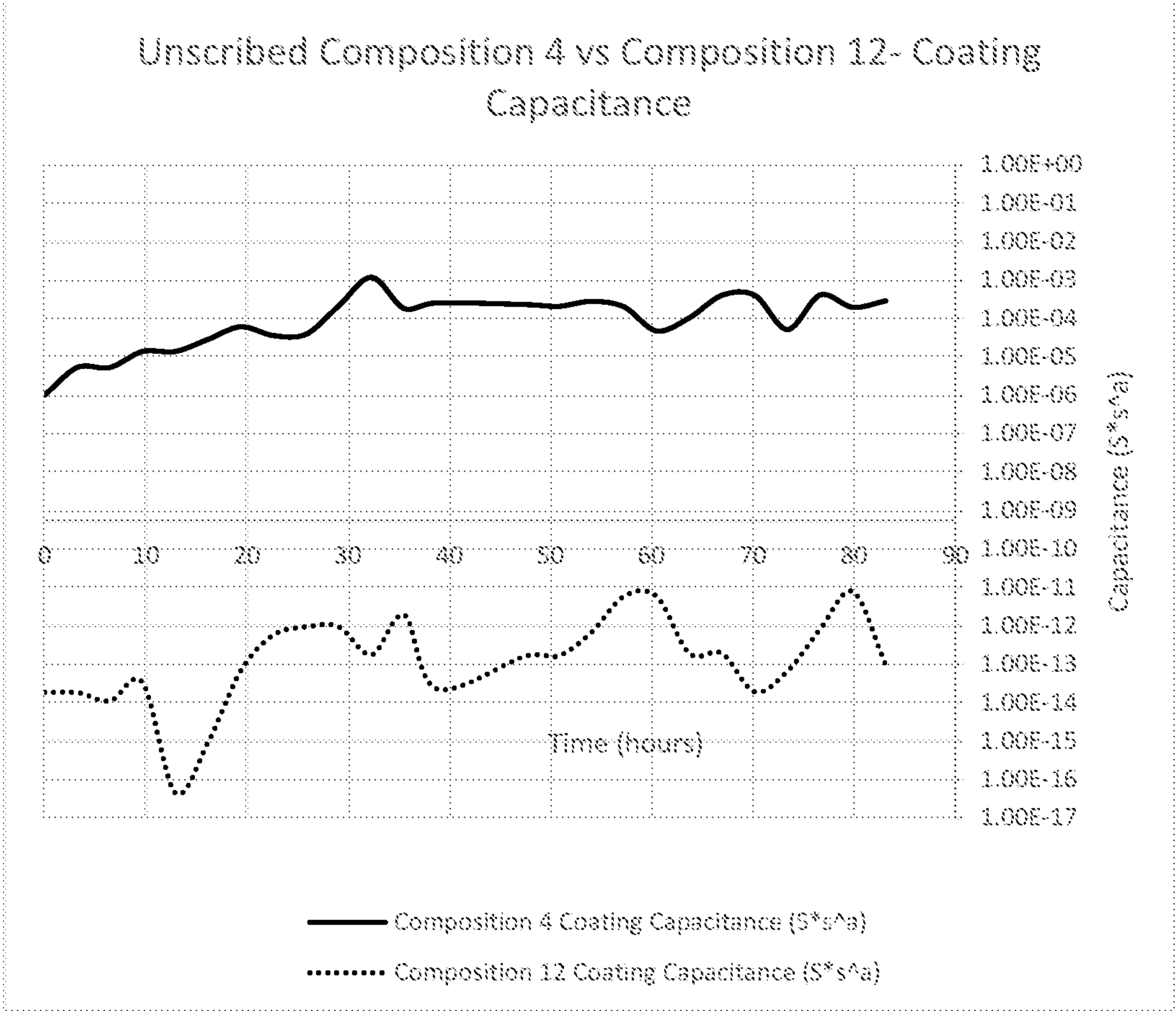


Table 23