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Title: Assessing the Oxidative Degradation of N-methyl Pyrrolidone (NMP) in Microelectronic Fabrication Processes by using a Multi-platform Analytical Approach

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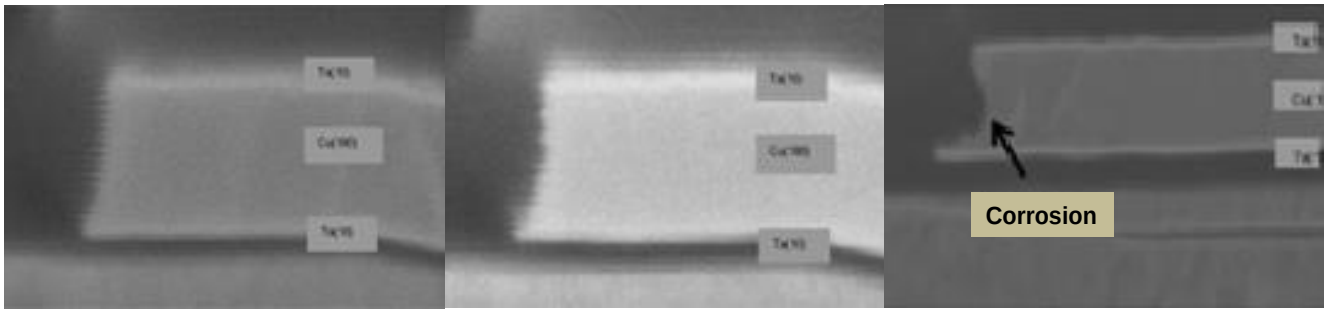

Figure S1: Focused ion beam (FIB) analysis of the contact reader stack submerged in NMP after 400 s, 980 s, and 1800 s using a FEI FIB200TEM

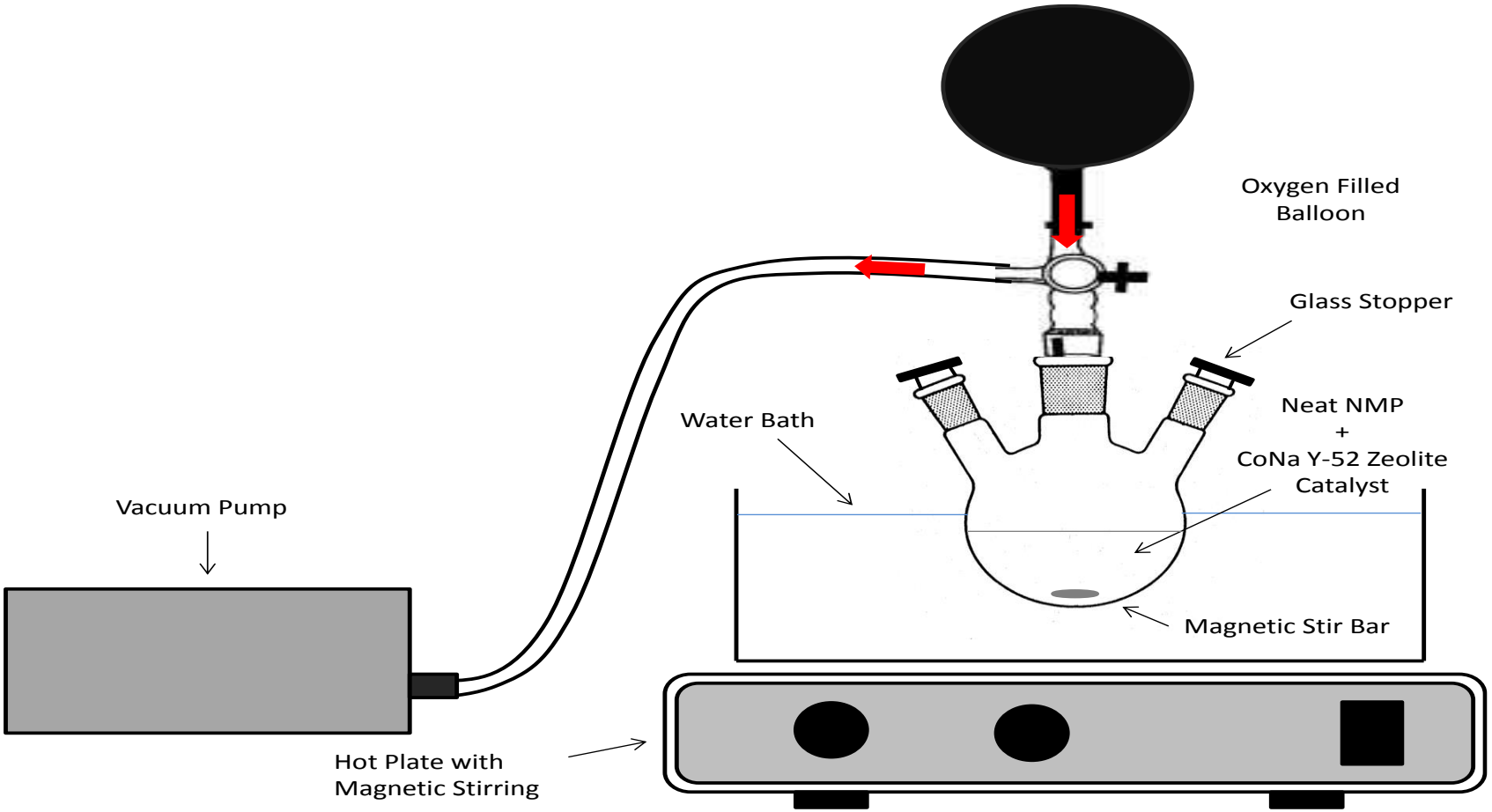

Figure S2: Experimental design used for catalytic oxidation of NMP in Oxygen. Adapted from Victor *et., 2015*.

Table S1: ICP-OES Calibration Standard Solution Compositions

Calibration Standard	Volume of NMP (mL)	Volume of Working Standard A (mL)[a]	Volume of Working Standard B (mL)[b]	Volume of Deionised Water
5	10	20	-	70
4	10	10	-	80
3	10	1	-	89
2	10	-	10	80
1	10	-	1	89

[a] High Concentration Working Standard (10 mg/L)
[b] Low Concentration Working Standard (0.1 mg/L)

Table S2: LC/UV and LC/MS gradient profile.

Minutes	**Flow mL/min**	**Mobile Phase**	
		% A	**%B**
0.00	0.5	98	2
0.20	0.5	98	2
0.50	0.7	98	2
5.00	0.7	70	30
9.00	1.0	60	40
9.01	1.0	98	2