

# VA Application Note No. V - 98

<b>Title:</b>	<b>Molybdenum in sulfuric acid</b>
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<b>Summary:</b>	Mo is determined by polarography at the SMDE in nitric acid solution.
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<b>Sample:</b>	sulfuric acid (w(H <sub>2</sub> SO <sub>4</sub> ) = 20%)
<b>Sample preparation:</b>	none

Analysis of Mo																									
<b>Electrolyte</b>	w(HNO <sub>3</sub> ) = 65%																								
<b>Measuring solution</b>	5 mL ultrapure water + 5 mL sulfuric acid sample + 0.5 mL nitric acid																								
<b>Working electrode (WE)</b>	<b>MME</b> (Multi Mode Electrode) 6.1246.020																								
<b>Auxiliary electrode (AE)</b>	<b>Pt:</b> 6.0343.000																								
<b>Reference electrode (RE)</b>	Ag/AgCl/KCl (3 mol/L): 6.0728.020 + 6.1245.010																								
<b>Parameters</b>	<table border="1"> <tbody> <tr> <td>Working electrode</td> <td>SMDE</td> </tr> <tr> <td>Stirrer speed</td> <td>2000 rpm</td> </tr> <tr> <td>Mode</td> <td>DP</td> </tr> <tr> <td>Purge time</td> <td>300 s</td> </tr> <tr> <td>Equilibration time</td> <td>10 s</td> </tr> <tr> <td>Pulse amplitude</td> <td>100 mV</td> </tr> <tr> <td>Start potential</td> <td>+200 mV</td> </tr> <tr> <td>End potential</td> <td>-450 mV</td> </tr> <tr> <td>Voltage step</td> <td>6 mV</td> </tr> <tr> <td>Voltage step time</td> <td>0.5 s</td> </tr> <tr> <td>Sweep rate</td> <td>12 mV/s</td> </tr> <tr> <td>Peak potential Mo</td> <td>-150 mV</td> </tr> </tbody> </table>	Working electrode	SMDE	Stirrer speed	2000 rpm	Mode	DP	Purge time	300 s	Equilibration time	10 s	Pulse amplitude	100 mV	Start potential	+200 mV	End potential	-450 mV	Voltage step	6 mV	Voltage step time	0.5 s	Sweep rate	12 mV/s	Peak potential Mo	-150 mV
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<b>Results:</b>	Mo
	99 µg/L

**Determination of Mo**

