## 4.2.7 Differential Pulse Voltammetry Parameters dialog box

In Differential Pulse Voltammetry (DPV), the base potential is incremented from Init E toward Final E. A potential pulse is applied. Current is sampled before the potential pulse and at the end of the pulse. The difference between these two current samples is recorded as a function of potential. The following diagram shows the potential waveform applied as a function of time and the current sampling scheme.
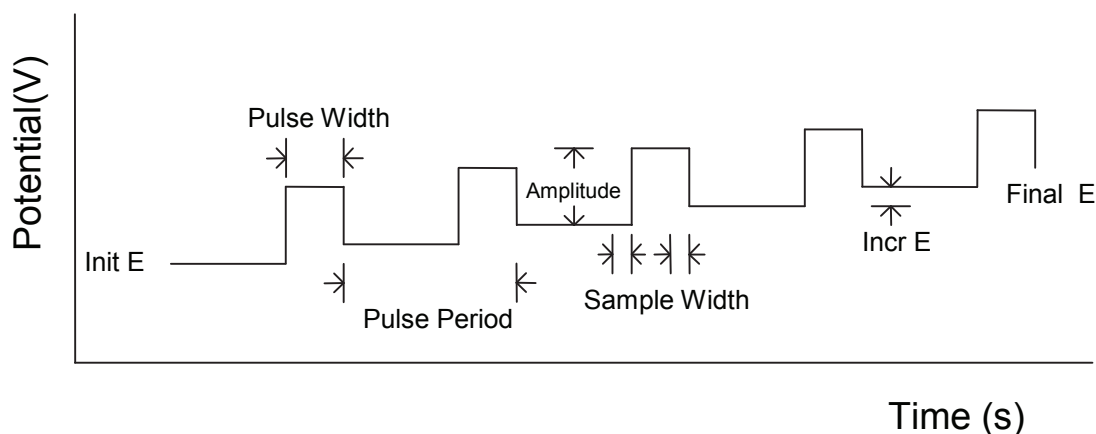
Parameter	Range	Description
Init E (V)	-10 - +10	Initial potential
Final E (V)	-10 - +10	Final potential
Incr E (V)	0.001 - 0.05	Increment potential of each pulse
Amplitude (V)	±0.001 - ±0.5	Potential pulse amplitude
Pulse Width (s)	1e-3 - 10	Potential pulse width
Sample Width (s)	1e-4 - 10	Data sampling width
Pulse Period (s)	0.01 - 50	Potential pulse period or dropping time
Quiet Time (s)	0 - 100000	Quiescent time before potential pulses begin
Sensitivity (A/V)	1e-12 - 0.1	Sensitivity scale

Electrode 2:

Potential (V)	-10 - +10	Second working electrode potential if not step
Sensitivity (A/V)	1e-12 - 0.1	Sensitivity scale for second electrode
On	Check or Uncheck	Second working electrode at constant E
Scan	Check or Uncheck	Scan the second electrode potential

Notes

- Init E and Final E should be at least 0.01 V apart.
- Pulse Width should be no more than half of Pulse Period; otherwise the system will automatically readjust Pulse Width.
- Sample Width should be no more than half of Pulse Width; otherwise the system will automatically readjust Sample Width.
- When Amplitude is negative, the pulse direction will in the opposite direction of the potential scan.
- When the second electrode is set to Scan, its potential will be the same as the primary electrode; it is not independent.