FTIR Maintenance Log

Year: 2025

Entry #	Date	Alignment	Val Pro Qualification Pass/Fail	Known Standard Pass/Fail	Comments	Analyst Initials
1	1/2/2025	✓	pass	N/A		KB
2	1/8/2025	✓	pass	N/A		KB
3	1/14/2025	✓	pass	N/A		KB

Signature: _____ **Date:** _____

ValPro Qualification Report

Qualification test: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV
Operator: OMNICAdmin
Date: Thursday, January 2, 2025 12:23:01 PM (GMT-06:00)
Instrument: Nicolet iS20 Serial number: BEP2210424
Filename: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV_20250102_122301.spg

Test description	High limit	Low limit	Measured	Result
CP Wavenumber accuracy				
Peak at 3027.0 (cm-1)	3032.0	3022.0	3025.7	Pass
Peak at 2851.0 (cm-1)	2856.0	2846.0	2849.5	Pass
Peak at 1601.0 (cm-1)	1602.0	1600.0	1601.1	Pass
Peak at 1028.0 (cm-1)	1029.0	1027.0	1028.4	Pass
Peak at 907.0 (cm-1)	908.0	906.0	906.6	Pass
CP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
CP Peak Resolution				
Peaks between 3120 and 2850 cm-1	7	7	7	Pass
JP Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.5	3058.5	3059.7	Pass
Peak at 2849.5 (cm-1)	2851.0	2848.0	2849.4	Pass
Peak at 1942.9 (cm-1)	1944.4	1941.4	1942.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1583.0	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.5	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass
JP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
JP Repeatability				
Peak at 3027.1 (cm-1)	5.00	-5.00	0.03	Pass
Peak at 1028.3 (cm-1)	1.00	-1.00	0.00	Pass
Intensity at 2849.5 (%T)	0.50	-0.50	0.01	Pass
Intensity at 1028.3 (%T)	0.50	-0.50	-0.02	Pass
PHEUR Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.7	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass
Peak at 906.6 (cm-1)	907.6	905.6	906.6	Pass
PHEUR Optical resolution				
Resolution 2870 - 2849.5 (Abs)	10.00	0.33	0.45	Pass
Resolution 1589 - 1583 (Abs)	10.00	0.08	0.13	Pass
PV Energy ratio				
Energy ratio 4000 / 2000	1.00	0.20	0.34	Pass
Energy ratio 2000 / 1000	4.00	0.80	1.59	Pass

PV Noise level

P-P noise 4050 - 3950 (%T)	0.25	0.00	0.05	Pass
P-P noise 2050 - 1950 (%T)	0.221	0.00	0.036	Pass
P-P noise 1050 - 950 (%T)	0.10	0.00	0.04	Pass
P-P noise 550 - 450 (%T)	1.50	0.00	0.26	Pass
RMS noise 4050 - 3950	0.05	0.00	0.01	Pass
RMS noise 2050 - 1950	0.039	0.00	0.008	Pass
RMS noise 1050 - 950	0.014	0.00	0.009	Pass
RMS noise 550 - 450	0.30	0.00	0.06	Pass

PV Detector linearity

Slope	1.10	0.90	0.97	Pass
Intercept (%T)	1.00	-1.00	0.00	Pass

USP Wavenumber accuracy

Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.7	Pass
Peak at 2849.5 (cm-1)	2850.5	2848.5	2849.4	Pass
Peak at 1942.9 (cm-1)	1943.9	1941.9	1942.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1583.0	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.5	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass

Performed by: _____ Title: _____ Date: _____

Approved by: _____ Title: _____ Date: _____

Comments: _____

Digital comment(s):
No digital comments found.

ValPro Qualification Report

Qualification test: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV
Operator: OMNICAdmin
Date: Wednesday, January 8, 2025 8:41:55 AM (GMT-06:00)
Instrument: Nicolet iS20 Serial number: BEP2210424
Filename: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV_20250108_084155.spg

Test description	High limit	Low limit	Measured	Result
CP Wavenumber accuracy				
Peak at 3027.0 (cm-1)	3032.0	3022.0	3025.6	Pass
Peak at 2851.0 (cm-1)	2856.0	2846.0	2849.4	Pass
Peak at 1601.0 (cm-1)	1602.0	1600.0	1601.1	Pass
Peak at 1028.0 (cm-1)	1029.0	1027.0	1028.4	Pass
Peak at 907.0 (cm-1)	908.0	906.0	906.6	Pass
CP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
CP Peak Resolution				
Peaks between 3120 and 2850 cm-1	7	7	7	Pass
JP Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.5	3058.5	3059.7	Pass
Peak at 2849.5 (cm-1)	2851.0	2848.0	2849.4	Pass
Peak at 1942.9 (cm-1)	1944.4	1941.4	1942.6	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1583.0	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.5	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass
JP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
JP Repeatability				
Peak at 3027.1 (cm-1)	5.00	-5.00	-0.02	Pass
Peak at 1028.3 (cm-1)	1.00	-1.00	0.00	Pass
Intensity at 2849.5 (%T)	0.50	-0.50	-0.04	Pass
Intensity at 1028.3 (%T)	0.50	-0.50	-0.04	Pass
PHEUR Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.7	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass
Peak at 906.6 (cm-1)	907.6	905.6	906.7	Pass
PHEUR Optical resolution				
Resolution 2870 - 2849.5 (Abs)	10.00	0.33	0.45	Pass
Resolution 1589 - 1583 (Abs)	10.00	0.08	0.13	Pass
PV Energy ratio				
Energy ratio 4000 / 2000	1.00	0.20	0.35	Pass
Energy ratio 2000 / 1000	4.00	0.80	1.60	Pass

PV Noise level

P-P noise 4050 - 3950 (%T)	0.25	0.00	0.04	Pass
P-P noise 2050 - 1950 (%T)	0.221	0.00	0.018	Pass
P-P noise 1050 - 950 (%T)	0.10	0.00	0.04	Pass
P-P noise 550 - 450 (%T)	1.50	0.00	0.33	Pass
RMS noise 4050 - 3950	0.05	0.00	0.01	Pass
RMS noise 2050 - 1950	0.039	0.00	0.003	Pass
RMS noise 1050 - 950	0.014	0.00	0.008	Pass
RMS noise 550 - 450	0.30	0.00	0.05	Pass

PV Detector linearity

Slope	1.10	0.90	0.95	Pass
Intercept (%T)	1.00	-1.00	-0.02	Pass

USP Wavenumber accuracy

Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.7	Pass
Peak at 2849.5 (cm-1)	2850.5	2848.5	2849.4	Pass
Peak at 1942.9 (cm-1)	1943.9	1941.9	1942.6	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1583.0	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.5	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass

Performed by: _____ Title: _____ Date: _____

Approved by: _____ Title: _____ Date: _____

Comments: _____

Digital comment(s):
No digital comments found.

ValPro Qualification Report

Qualification test: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV
Operator: OMNICAdmin
Date: Tuesday, January 14, 2025 8:30:27 AM (GMT-06:00)
Instrument: Nicolet iS20 Serial number: BEP2210424
Filename: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV_20250114_083027.spg

Test description	High limit	Low limit	Measured	Result
CP Wavenumber accuracy				
Peak at 3027.0 (cm-1)	3032.0	3022.0	3025.6	Pass
Peak at 2851.0 (cm-1)	2856.0	2846.0	2849.5	Pass
Peak at 1601.0 (cm-1)	1602.0	1600.0	1601.1	Pass
Peak at 1028.0 (cm-1)	1029.0	1027.0	1028.4	Pass
Peak at 907.0 (cm-1)	908.0	906.0	906.7	Pass
CP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
CP Peak Resolution				
Peaks between 3120 and 2850 cm-1	7	7	7	Pass
JP Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.5	3058.5	3059.7	Pass
Peak at 2849.5 (cm-1)	2851.0	2848.0	2849.4	Pass
Peak at 1942.9 (cm-1)	1944.4	1941.4	1942.6	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1583.0	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.5	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass
JP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
JP Repeatability				
Peak at 3027.1 (cm-1)	5.00	-5.00	-0.03	Pass
Peak at 1028.3 (cm-1)	1.00	-1.00	0.00	Pass
Intensity at 2849.5 (%T)	0.50	-0.50	0.00	Pass
Intensity at 1028.3 (%T)	0.50	-0.50	-0.01	Pass
PHEUR Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.7	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass
Peak at 906.6 (cm-1)	907.6	905.6	906.6	Pass
PHEUR Optical resolution				
Resolution 2870 - 2849.5 (Abs)	10.00	0.33	0.45	Pass
Resolution 1589 - 1583 (Abs)	10.00	0.08	0.13	Pass
PV Energy ratio				
Energy ratio 4000 / 2000	1.00	0.20	0.35	Pass
Energy ratio 2000 / 1000	4.00	0.80	1.59	Pass

PV Noise level

P-P noise 4050 - 3950 (%T)	0.25	0.00	0.03	Pass
P-P noise 2050 - 1950 (%T)	0.221	0.00	0.016	Pass
P-P noise 1050 - 950 (%T)	0.10	0.00	0.04	Pass
P-P noise 550 - 450 (%T)	1.50	0.00	0.26	Pass
RMS noise 4050 - 3950	0.05	0.00	0.01	Pass
RMS noise 2050 - 1950	0.039	0.00	0.004	Pass
RMS noise 1050 - 950	0.014	0.00	0.008	Pass
RMS noise 550 - 450	0.30	0.00	0.06	Pass

PV Detector linearity

Slope	1.10	0.90	0.97	Pass
Intercept (%T)	1.00	-1.00	-0.01	Pass

USP Wavenumber accuracy

Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.7	Pass
Peak at 2849.5 (cm-1)	2850.5	2848.5	2849.4	Pass
Peak at 1942.9 (cm-1)	1943.9	1941.9	1942.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.1	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1583.0	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.5	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass

Performed by: _____ Title: _____ Date: _____

Approved by: _____ Title: _____ Date: _____

Comments: _____

Digital comment(s):
No digital comments found.