

# Comparison of FY21 services/rates with FY20 services/rates

FY21 rates are planned to take effect on July 1, 2020.

Abbreviations: INT = Internal; ENP = External Non-Profit; ISB = Indiana Small Business; EFP = External For-Profit; F/A = Facilities & Administrative Costs (55% Overhead, included in listed external prices)

FY21 Recharge	FY21 Service Name	INT	ENP/ISB + F/A	EFP + F/A	Unit	FY20 Recharge	FY20 Service Name	INT	ENP + F/A	ISB + F/A	EFP + F/A	Unit
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	(PCB) LPKF Milling System	70	107.79	107.79	121.70	use
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	Disco Dad Dicing Saw #2	30	79.54	79.54	89.80	hour
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	DiscoDad Dicing Saw	30	79.54	79.54	89.80	hour
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	JFP Wire Bonder	20	68.58	68.58	77.41	hour
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	LPKF Plater	50	76.45	76.45	86.31	use
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	LPKF Press	30	65.83	65.83	74.33	use
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	Pick and Place Machine	24	36.83	36.83	41.59	use
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	West Bond	30	45.00	45.00	50.80	hour
General Labs	Advanced Packaging and Assembly	40	75.95	85.25	hour	Scifres	Westbond 7476E Wedge Bonder	21	31.70	31.70	35.79	use
General Labs	Basic Packaging and Assembly	20	41.85	46.50	hour	Scifres	Critical Point Dryer (CPD)	30	49.59	49.59	55.99	hour
General Labs	Basic Packaging and Assembly	20	41.85	46.50	hour	Scifres	Table-Top Inkjet System	24	37.11	37.11	41.90	hour
General Labs	Basic Packaging and Assembly	20	41.85	46.50	hour	Scifres	ULS Engraver	8	17.60	17.60	19.86	hour
General Labs	Center for Atomic Force Microscopy	44	68.20	75.95	hour	AFM	Nanotec AFM 1	25	39.00	51.00	77.01	hour
General Labs	Center for Atomic Force Microscopy	44	68.20	75.95	hour	AFM	Nanotec AFM 2	25	39.00	51.00	77.01	hour
General Labs	Center for Atomic Force Microscopy	44	68.20	75.95	hour	AFM	Agilent 5500	25	39.00	51.00	77.01	hour
General Labs	Center for Atomic Force Microscopy	44	68.20	75.95	hour	AFM	Asylum MFP3D Bio AFM	44	68.00	89.01	136.00	hour
General Labs	Center for Atomic Force Microscopy	44	68.20	75.95	hour	AFM	Asylum Cypher	44	68.00	89.01	136.00	hour
General Labs	Daily Entry Surcharge: Biological Lab	6	13.95	15.50	day	3D Cell Culture	Fluorescence Microscope	8	14.00	14.00	14.00	hour
General Labs	Daily Entry Surcharge: Biological Lab	6	13.95	15.50	day	BioLabs	Zetasizer	4	7.01	7.01	7.01	hour
General Labs	Daily Entry Surcharge: Biological Lab	6	13.95	15.50	day	BioLabs	Olympus FV1000 Confocal Microscope	25	39.00	39.00	44.01	hour
General Labs	Daily Entry Surcharge: Biological Lab	6	13.95	15.50	day	BioLabs	Cell Culture BioHood Surcharge	25	39.00	39.00	44.01	use
General Labs	Daily Entry Surcharge: General Lab	2	3.10	3.10	day	Scifres	KOH Bath System	7	10.33	10.33	11.68	use
General Labs	Femto Laser/Raman Spectrometer	30	46.50	52.70	hour	Femto/Raman	Femtosecond Laser	30	47.00	47.00	53.00	hour
General Labs	Femto Laser/Raman Spectrometer	30	46.50	52.70	hour	Femto/Raman	Raman Spectrometer	27	42.01	42.01	48.01	hour
General Labs	General Roll to Roll	120	209.25	235.60	hour	Scifres	Mirwec	42	69.54	69.54	78.51	hour
General Labs	General Roll to Roll	120	209.25	235.60	hour	Scifres	Screen Printer	70	310.16	310.16	350.17	use
General Labs	General Roll to Roll	120	209.25	235.60	hour	Scifres	PPSI Inkjet	300	2302.31	2302.31	2599.39	use
General Labs	Kratos XPS	40	65.10	72.85	hour	Surface Analysis	Kratos XPS	35	73.01	95.00	145.01	hour
General Labs	Laser Doppler Vibrometry (LDV)	26	40.30	46.50	hour	LDV	Micro System Analyzer	6	10.00	13.01	30.00	hour
General Labs	Laser Doppler Vibrometry (LDV)	26	40.30	46.50	hour	LDV	Vacuum Chamber	13	21.01	27.01	60.01	hour
General Labs	Maxwell Roll to Roll System	200	310.00	350.30	hour	Scifres	Roll-to-Roll System - Cleanroom	68	105.22	105.22	118.80	hour
General Labs	Omicron Surface Analysis Cluster	18	37.20	41.85	hour	Surface Analysis	Omicron	100	305.00	396.00	609.00	use
General Labs	Optics and Spectroscopy Lab	32	49.60	55.80	hour	Optics	SNSOM/Luminescence Mapping	79	123.00	123.00	215.01	use
General Labs	Optics and Spectroscopy Lab	32	49.60	55.80	hour	Optics	Spectrophotometer Lambda 950	68	105.00	105.00	184.01	hour
General Labs	Optics and Spectroscopy Lab	32	49.60	55.80	hour	Optics	Micro-Sample Spectrometer	70	108.01	108.01	189.01	hour
General Labs	Optics and Spectroscopy Lab	32	49.60	55.80	hour	Optics	Vector 22	78	120.90	120.90	211.58	hour
General Labs	Optics and Spectroscopy Lab	32	49.60	55.80	hour	Optics	Raman Spectrometer T64000	31	48.01	48.01	84.00	hour
General Labs	Optics and Spectroscopy Lab	32	49.60	55.80	hour	Optics	NSOM / Luminescence Mapping	19	30.00	30.00	44.01	hour
General Labs	Optics and Spectroscopy Lab	32	49.60	55.80	hour	Optics	V-VASE Spectroscopic Ellipsometer	16	25.01	25.01	44.01	hour
General Labs	Panalytical X-Ray Diffractometer (XRD)	29	46.50	52.70	hour	Epitaxy	PANalytical XRRD-Normal Scan	45	107.00	107.00	188.00	hour
General Labs	Panalytical X-Ray Diffractometer (XRD)	29	46.50	52.70	hour	Epitaxy	PANalytical XRRD-RSM Scan	270	270.00	270.00	270.00	hour
General Labs	Probe Station	25	46.50	52.70	hour	Scifres	Hall Effect System	10	37.25	37.25	42.04	use
General Labs	Probe Station	25	46.50	52.70	hour	Scifres	Jandel 4-point probe system	6	34.15	34.15	38.54	hour
General Labs	Probe Station	25	46.50	52.70	hour	Scifres	MMIIIProbe 3 (Cleanroom Probe 1)	17.5	29.83	29.83	33.67	hour
General Labs	Probe Station	25	46.50	52.70	hour	Scifres	MMIIProbe 2	17	29.14	29.14	32.90	hour
General Labs	Probe Station	25	46.50	52.70	hour	Scifres	MMIProbe 1	17	29.14	29.14	32.90	hour
General Labs	Probe Station	25	46.50	52.70	hour	Scifres	MMR Probe Station #2	26	66.42	66.42	74.99	hour
General Labs	Pulsed Laser Deposition (PLD), Per Use	400	620.00	700.60	use	Epitaxy	PVD Products NanoPLD + LPX305iLaser	400	634.00	634.00	716.01	use
General Labs	Raith eLine E-Beam Writer	37	69.75	79.05	hour	Raith	Raith E-Beam	34	61.00	61.00	69.01	hour
General Labs	Scientific Staff Time, 3D Cell Culture	51	79.05	88.35	hour	3D Cell Culture	Raith Labor Rate	42	66.00	66.00	74.00	hour
General Labs	Scientific Staff Time, Center for AFM	25	38.75	43.40	hour	AFM	N/A	N/A	N/A	N/A	N/A	N/A
General Labs	Scientific Staff Time, Kratos XPS	94	145.70	164.30	hour	Surface Analysis	Analysis Rate	70	98.01	127.01	195.01	hour
General Labs	Scientific Staff Time, Optics	81	125.55	141.05	hour	Optics	Staff/Training Time	66	102.01	102.01	178.01	hour
General Labs	Scientific Staff Time, Probe Station	88	136.40	153.45	hour	Scifres	Scientific Staff Time	70	122.36	122.36	138.16	hour
General Labs	Scientific Staff Time, Roll to Roll	86	133.30	150.35	hour	Scifres	Scientific Staff Time	70	122.36	122.36	138.16	hour
General Labs	Scientific Staff Time, Roll to Roll	86	133.30	150.35	hour	Scifres	Scientific Training Time	70	110.36	110.36	124.61	hour
General Labs	Scientific Staff Time, Spintronics	96	148.80	168.95	hour	Scifres	Scientific Training Time	70	110.36	110.36	124.61	hour
General Labs	Spintronics	10	24.80	27.90	hour	Scifres	MPMS	7.5	39.16	39.16	44.21	hour
General Labs	Spintronics	10	24.80	27.90	hour	Scifres	PPMS	12	18.26	18.26	20.62	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	BioLabs	Special Projects Hourly Staff Rate	55	85.01	85.01	97.00	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	Epitaxy	Special projects hourly labor rate	53	82.00	107.00	143.01	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	Femto/Raman	Training/Staff Time	37	57.00	57.00	65.01	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	LDV	Special Hourly Projects Rate	36	56.01	73.01	170.01	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	Raith	Special Projects Hourly Staff Rate	44	73.01	73.01	83.01	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	Scifres	Engineering Staff Time	65	117.88	117.88	133.09	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	Scifres	Engineering Staff Time	65	117.88	117.88	133.09	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	Scifres	Engineering Training Time	65	136.20	136.20	153.78	hour
General Labs	Technical Staff Time	61	114.70	130.20	hour	Scifres	Engineering Training Time	65	136.20	136.20	153.78	hour
Scifres	Atomic Layer Deposition (ALD)	9	17.05	18.60	hour	Scifres	Fiji200 ALD	53	81.91	81.91	92.48	use
Scifres	Basic Etching	20	40.30	44.95	hour	Scifres	Branson	11	18.79	18.79	21.21	hour
Scifres	Basic Etching	20	40.30	44.95	hour	Scifres	Xef Etcher	19	28.83	28.83	32.55	hour
Scifres	Basic Etching	20	40.30	44.95	hour	Scifres	RIE	20	29.94	29.94	33.79	hour
Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	2D CVD	14	21.43	21.43	24.20	hour

Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	Axix CVD	19	29.14	29.14	32.91	hour
Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	Easy Tube 3000	20	32.28	32.28	36.45	hour
Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	Parylene CVD	12.5	22.84	22.84	25.78	hour
Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	ProTemp Tube 02	29	43.56	43.56	49.19	hour
Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	ProTemp Tube 03	43	82.37	82.37	92.99	hour
Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	ProTemp Tube 06	50	103.67	103.67	117.06	hour
Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	ProTemp Tube 09	70	177.70	177.70	200.62	hour
Scifres	Chemical Vapor Deposition (CVD)	44	86.80	97.65	hour	Scifres	PECVD	58	89.55	89.55	101.10	hour
Scifres	Daily Entry Surcharge: Cleanroom	27	51.15	57.35	day	Scifres	Vacuum Oven	10	15.02	15.02	16.96	hour
Scifres	Flexible Substrate PVD, Per Use	150	283.65	319.30	use	Scifres	Airco E-Beam Evaporator	100	155.44	155.44	175.50	use
Scifres	Flexible Substrate PVD, Per Use	150	283.65	319.30	use	Scifres	E-Beam Evaporator for Organics	123	190.16	190.16	214.68	use
Scifres	Flexible Substrate PVD, Per Use	150	283.65	319.30	use	Scifres	Organic Sputtering System	120	257.77	257.77	291.02	use
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Alpha-Step IQ	12	20.05	20.05	22.62	hour
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Bruker Optical Profileometer	26	39.36	39.36	44.43	hour
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Dimension 3100 AFM	21	31.86	31.86	35.96	hour
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Ellipsometer	20	48.50	48.50	54.77	hour
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Filmetrics F10-RT	8	11.04	11.04	12.47	hour
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Filmetrics F40	8	11.04	11.04	12.47	hour
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Leica Confocal Microscope	45	289.02	289.02	326.31	use
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Olympus BX-60 Microscope	6	12.81	12.81	14.47	hour
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	P-7 Profiler	23	34.77	34.77	39.27	use
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Stress Machine	80	124.36	124.36	140.42	hour
Scifres	General Metrology	25	48.05	55.80	hour	Scifres	Veeco Dimension AFM (nanoman)	10	14.36	14.36	16.20	hour
Scifres	ICP Etching	55	103.85	117.80	hour	Scifres	AOE Etcher	85	152.40	152.40	172.07	hour
Scifres	ICP Etching	55	103.85	117.80	hour	Scifres	ASE Etcher	37	57.04	57.04	64.41	hour
Scifres	ICP Etching	55	103.85	117.80	hour	Scifres	Panasonic	69	105.79	105.79	119.43	hour
Scifres	ICP Etching	55	103.85	117.80	hour	Scifres	AJA Ion Mill	60	99.58	99.58	112.43	hour
Scifres	JEOL JBX-8100FS E-Beam Writer	88	151.90	170.50	hour	Scifres	JEOL	88	145.91	145.91	164.72	hour
Scifres	Lithography Aligners	44	103.85	116.25	hour	Scifres	MJB-3 Wafer Aligner	26	39.48	39.48	44.58	hour
Scifres	Lithography Aligners	44	103.85	116.25	hour	Scifres	MJB-4 Wafer Aligner	26	39.48	39.48	44.58	hour
Scifres	Lithography Aligners	44	103.85	116.25	hour	Scifres	Nanonex NX-2000 Nanoimprinter	30	63.03	63.03	71.17	hour
Scifres	Lithography Aligners	44	103.85	116.25	hour	Scifres	Suss MA-6 Mask Aligner	26	41.84	41.84	47.25	hour
Scifres	Lithography Aligners	44	103.85	116.25	hour	Scifres	Suss SB6e Substrate Bonder	60	120.27	120.27	135.77	hour
Scifres	Lithography Aligners	44	103.85	116.25	hour	Scifres	Heidelberg	68	105.39	105.39	118.98	hour
Scifres	Lithography Spinners	22	43.40	49.60	hour	Scifres	Spinners (5)	6	7.17	7.17	8.08	hour
Scifres	Lithography Spinners	22	43.40	49.60	hour	Scifres	Automatic Developer	24	36.57	36.57	41.28	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	Ammonia (NH3) Anneal (N2 Anneal)	19	28.29	28.29	31.95	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	Blue M Oven	10	13.99	13.99	15.78	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	Jipelec RTA	18	38.88	38.88	43.90	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	Nitric Oxide Anneal	20	31.00	31.00	35.00	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	ProTemp Tube 01	20	31.13	31.13	35.14	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	ProTemp Tube 04	26	38.85	38.85	43.87	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	ProTemp Tube 05	19	28.74	28.74	32.45	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	ProTemp Tube 07	26	38.85	38.85	43.87	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	ProTemp Tube 08	16	23.58	23.58	26.62	hour
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	Spin Rinse Dryer	6	15.57	15.57	17.58	use
Scifres	Oxidation/Annealing Furnace	22	41.85	46.50	hour	Scifres	RCA Hood	19	29.24	29.24	33.02	hour
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	PVD Products Nirtide Sputter	85	138.00	138.00	155.00	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	Cha E-Beam Evaporator	64	98.31	98.31	111.00	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	Electrodeposition_1	9	13.29	13.29	15.01	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	Electrodeposition_PAR	7	11.07	11.07	12.50	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	WAFAB Electroplating System	60	127.80	127.80	144.29	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	Kurt J Lesker E-Beam	92	142.22	142.22	160.57	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	Leybold E-Beam Evaporator	100	154.52	154.52	174.46	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	PVD Electron Beam Evaporator #1	75	115.79	115.79	130.75	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	PVD Electron Beam Evaporator #2	100	207.35	207.35	234.10	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	PVD Sputt. System - Magnets	80	125.99	125.99	142.23	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	PVD Sputt. System - Metals/Dielectrics	80	124.05	124.05	140.05	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	Veeco Thermal Evaporator	125	316.48	316.48	357.33	use
Scifres	PVD and Electroplating, Per Use	100	193.75	218.55	use	Scifres	Iko Electroplating System	62	94.82	94.82	107.06	hour