| K | CASI Cleanroom Rates - Effective for FY26 (J | uly1, 2025 | <u>- June 30</u> | 0, 2026) | | |
|---------------------------------------|---|------------------------|---|--------------------|------------------|--------------------------|
| Item Description | Details | Internal (OUS) rate | External academic, non-profit, govt. | Internship** | Industry rate | Daily / Hourly |
| Houry rate | Hourly rate covers entry to clean room, gowning, and access to basic priocess tools including benches, spinners, microscope and filmetrics. | 35 | 50 | 72.5 | 110 | Hourly. Min charge \$10. |
| Engineering time | Training, maintence, and service fee for Engineer assistance | 90 | 112.5 | 112.5 | 112.5 | Hourly |
| User training and set-up | Issue gown, gowning and safety training, Nemo registration, notebook | 125 | 150 | 150 | | per user |
| Cap and Notch Values | Monthly fee cap value and notch value. Usage above notch is 30% of regular fees | 30% after notch | \$4000 notch; 30% after notch | notch | after notch | NA |
| NOTE: 100 | I Rates: All hourly use items will have a \$5 min fee, or 15 minu High res with plenty of advanced features. Not located in cleanroom - | te minimum u | seage ree- w | nich ever is great | er. | |
| Keyence VHX 7000 | does not require hourly lab access fee to use | 30 | 45 | 60 | 90 | hourly |
| Filmetrics F40 | Standard thin film measurement | included | included | included | included | hourly |
| Flexus FLX 2320 | Thin Film stress measurement | 5 | 5 | 10 | 15 | hourly |
| Olympus Inspection Microscope | Inspection microscope | included | included | included | included | included |
| KLA Profilometer | Stylus profilometer | 20 | 20 | 30 | 40 | Hourly |
| PlasmaTherm DSE-III | Deep Si etch system (flourine based) | 30 | 30 | 57.5 | 85 | Hourly |
| PlasmaTherm PECVD | Primary plasma deposition system (**Specialty gases my require additional consumable fees.**) | 40 | 40 | 62.5 | 85 | Hourly |
| PlasmaThrerm Corial RIE | Primary plasma etch system (flourine based) | 30 | 30 | 57.5 | 85 | Hourly |
| AJA E-beam Evaporator | Metal evaporator. Basic metals will be provided. **Precious metals to be purcahsed from the Cleanroom.** | 30 | 30 | 57.5 | 85 | Hourly |
| AJA Sputterer | Basic targets will be provided. **Users required to purchase AJA custom targets from Cleanroom.** | 30 | 30 | 57.5 | 85 | Hourly |
| ADT Dicing Saw | Primary wafer dicing saw | 30 | 30 | 47.5 | 65 | Hourly |
| Heidelberg Direct Laser Writer | MLA 150 - Foundation for photolithography | 40 | 40 | 62.5 | 85 | Hourly |
| YES HMDS priming oven | For substrate priming | 10 | 10 | 20 | 30 | Hourly |
| Anatech Asher | For substrate sufrace conditioning/PR stripping | 15 | 15 | 30 | 45 | Hourly |
| SUSS MA6/BA6 aligner | Primary UV aligner/exporure tool | 30 | 30 | 52.5 | 75 | Hourly |
| Photoresist bench (includes spinners) | For PR dispensing and spinning | included | included | included | included | included |
| Solvent bench | For Solvent processing | included | included | included | included | included |
| Acid bench | For Acid processing | included | included | included | included | included |
| Developer bench | For Acid processing | included | included | included | included | included |

^{*} All visitors, tours, workshop, and instructional guest users require approval to enter from the Cleanroom Engineer.

KC effective ratefor comparison

KC (Proposed rates)

Lab access

daily rate N/A

hourly rate 35/hr

2100 cap, 4100

caps notch; 30% after

EQUIPMENT only (not inc. access)

| Profilometer | 20/hr | 55/hr |
|--------------------------------|----------|-------|
| Keyence / High res microscope | | 35/hr |
| Regular microscope | included | 35/hr |
| | | |
| Optical Thin Film thickness me | | 35/hr |
| Thin Film Stress Measurement | 5/hr | 40/hr |
| PECVD | 40/hr | 75/hr |
| DRIE | 30/hr | 65/hr |
| E-beam Evap | 30/hr | 65/hr |
| Sputterer | 30/hr | 65/hr |
| Thermal Evap | 30/hr | 65/hr |

| Direct laser writer | 40/hr | 75/hr |
|---------------------|----------|-------|
| | | |
| Acid Bench | included | 35/hr |
| | | |
| Litho bench | included | 35/hr |
| | | |
| O2 Asher | 15/hr | 50/hr |
| | | |
| Developer Bench | included | 35/hr |
| | | |
| HF bench | included | 35/hr |

| Effective rate |
|-----------------|
| averages across |
| inctitutos |

| institutes | UTAH | ATAMI-OSU | Mich | Caltech |
|------------|------------------|------------------|--------------------|----------------------|
| | NA Equip only | NA Equip only | \$29 Equip only | NA 40/hr |
| | \$3,000 | \$750 | none | \$1600; 50% after |
| 42.19 | 17/hr | 41/hr | 18/hr | included |
| 49.92 | 25/hr | 35/hr | N/A | included |
| 35.06 | 25/hr | 26/hr | 12/hr | included |
| 39.81 | 11/hr | 41/hr | 5/hr | included |
| 79.58 | 11/hr | N/A | 11/hr | included |
| 73.79 | 90/hr | N/A | 41/hr (GS | 67/hr |
| 69.21 | 85/hr | N/A | 47/hr | 50/hr |
| 69.94 | 75/hr | n/A | 44/hr | 24/hr |
| 69.94 | 80/hr | 57/hr | 44/hr | 37/hr |
| 49.90 | NA | N/A | 30/hr | N/A |

| | | | 32/hr | 47.50/hr |
|-------|--------|-------|-----------|----------|
| 64.57 | 75/hr | N/A | * uPG 501 | *DWL 66 |
| | | | | |
| 32.67 | 17/hr | | 16/hr | included |
| | | | | |
| 42.44 | 100/hr | 22/hr | 12/hr | included |
| | | | | |
| 42.81 | 45/hr | 22/hr | 16/hr | included |
| | | | | |
| 31.84 | 17/hr | 22/hr | 10/hr | included |
| | | | | |
| 32.79 | NA | 22/hr | 12/hr | included |

Caltech effecitve rate for comparison Stanford

Stanford effecitve rate for comparison Berkeley

NA

50/hr

NA

55.20/hr

1600 access cap; 3800

Equipment cap; 10%

after equip cap

\$3500; 25% after

| 40/hr | no cost | 50/hr | 22/hr |
|--------|----------|--------|---------|
| 40/hr | 35/hr | 85/hr | 22/hr |
| 40/hr | included | 50/hr | 22/hr |
| 40/hr | included | 50/hr | 22/hr |
| 40/hr | N/A | 50/hr | 22/hr |
| | | - | |
| 107/hr | 50/hr | 100/hr | 45/hr |
| 90/hr | 50/hr | 100/hr | 45/hr |
| 64/hr | 35/hr | 85/hr | 45/hr |
| 77/hr | 35/hr | 85/hr | 45/hr |
| 40/hr | 35/hr | 85/hr | No cost |

| | 35/hr | | 45/hr |
|---------|----------|-------|----------|
| 87.5/hr | MLA 150 | 85/hr | MLA 150 |
| | | | |
| 40/hr | included | 50/hr | included |
| | | | |
| 40/hr | 10/hr | 60/hr | included |
| | | | |
| 40/hr | 20/hr | 70/hr | included |
| | | | |
| 40/hr | 10/hr | 60/hr | included |
| | | | |
| 40/hr | included | 50/hr | included |

| Berkeley effecitve rate for |
|-----------------------------|
| comparison |

UCSB

UW

MIN

Max

NA \$27 39.50/hr Equip only

2200 cap; 4600

none notch; 33% after

| | | 7 | | |
|---------|--|--|---|---|
| 39.50 / | | | | |
| hr | 55/hr | included | \$ | 55.00 |
| 39.50 / | | | | |
| hr | N/A | included | \$ | 37.50 |
| 39.50 / | | | | |
| hr | 11/hr | included | \$ | 37.50 |
| 39.50 / | | | | |
| hr | 55/hr | included | \$ | 37.50 |
| 39.50 / | | | | |
| hr | N/A | included | \$ | 37.50 |
| 39.50 / | | | | |
| hr | 55/hr | \$ 37.50 | \$ | 90.00 |
| 39.50 / | | | | |
| hr | 77/hr | \$ 37.50 | \$ | 98.00 |
| 39.50 / | | | | |
| hr | 77/hr | \$ 24.00 | \$ | 77.00 |
| 39.50 / | | | | |
| hr | 77/hr | \$ 35.00 | \$ | 98.00 |
| 39.50 / | | | | |
| hr | no cost | \$ 30.00 | \$ | 37.50 |
| | hr 39.50 / hr | hr 55/hr 39.50 / hr N/A 39.50 / hr 11/hr 39.50 / hr 55/hr 39.50 / hr 55/hr 39.50 / hr 77/hr 39.50 / hr 77/hr 39.50 / hr 77/hr 39.50 / hr 77/hr | hr 55/hr included 39.50 / \$ 37.50 39.50 / \$ 37.50 39.50 / \$ 24.00 39.50 / \$ 35.00 39.50 / \$ 35.00 | hr 55/hr included \$ 39.50 / nr included \$ 39.50 / hr included \$ 39.50 / included \$ 39.50 / included \$ 39.50 / included \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ 39.50 / \$ |

| | 39.50 / | 33/hr | | |
|----------|---------|------------------|-------------|--------------|
| 100.2/hr | hr | * Heidelberg LDR | \$ 32.00 | \$ 75.00 |
| | 39.50 / | | | |
| 55.2/hr | hr | 11/hr | \$ 11.00 | \$ 37.50 |
| | 39.50 / | | | |
| 55.2/hr | hr | 11/hr | \$ 10.00 | \$ 100.00 |
| | 39.50 / | | | |
| 55.2/hr | hr | 55/hr | \$ 16.00 | \$ 55.00 |
| | 39.50 / | | | |
| 55.2/hr | hr | 11/hr | \$ 10.00 | \$ 37.50 |
| | 39.50 / | | | |
| 55.2/hr | hr | 11/hr | \$ 11.00 | \$ 37.50 |