

Materials List for:

A Simple Dewar/Cryostat for Thermally Equilibrating Samples at Known Temperatures for Accurate Cryogenic Luminescence Measurements

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Materials

| Name | Company | Catalog Number | Comments |
|------------------------------|--------------------|----------------|---|
| Diode laser 405 nm | Generic | | Generic pencil-type laser pointer for luminescence excitation: 5 mW at 405 nm |
| Quartz optical dewar | Custom fabrication | | 3.5 cm id. x 25.0 cm length with 4.5 cm unsilvered region for optical access |
| Programmable 5 1/2 digit DMM | Keithley | Model 192 | High impedance DMM for reading thermocouple voltages |
| Copper thermocouple wire | Omega Engineering | SPCP-010 | 0.010 in. diameter bare copper thermocouple wire |
| Constantan thermocouple wire | Omega Engineering | SPCC-010 | 0.010 in. diameter bare Constantan (copper/nickel) thermocouple wire |
| Polychromator/Spectrograph | Jarrell-Ash | 82-415 | 0.25 m Ebert monochromator with back slit assembly removed to enable operation as a polychromator |
| CCD camera | Andor | DV-401-UV | Thermoelectrically cooled (-35 °C) CCD camera for detecting emitted light |
| Copper wire for sample loop | Generic | | 0.0150 in. diameter bare copper wire for sample loop |