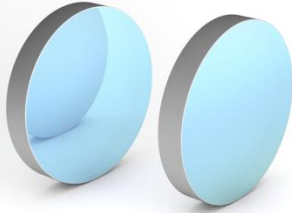


High Reflectivity Mirrors

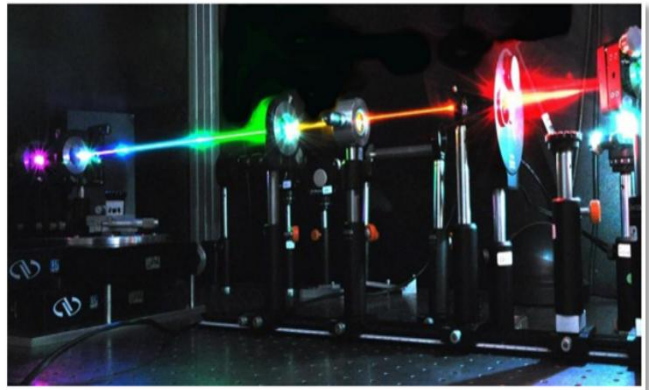


- Material from DUV to IR
- HR-266nm, HR-355nm, HR-532nm, HR-1064nm, HR-1550nm and custom wavelengths
- Best $R > 99.999\%$ @1064nm
- Surface quality: 20-10 S/D
- Custom dimension and shapes

CASTECH designs and fabricates high reflectivity mirrors with high laser damage threshold for most demanding laser applications. We utilize super polishing and ion beam figure (IBF) technologies to prepare high-quality substrates. With multiple advanced coating systems and technologies, coupled with high accuracy total loss measurement based on Cavity-Ring-Down (CRD) and LDT measurement, we are able to deliver consistent high-quality mirrors featured not only high reflectivity, but high laser damage resistance and environmental stability.

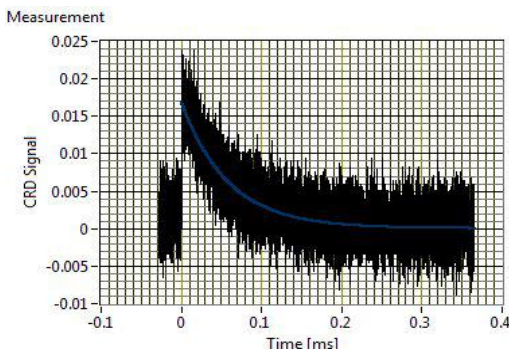
Metrology

High reflectivity in the order of $R = 99.9\sim 99.999\%$ are measured by Cavity-Ring-Down technique. CRD technique is a direct absorption technique based upon the measurement of the rate of absorption rather than the magnitude of absorption of a light pulse confined in a closed optical cavity with a high Q-factor. CRD measure instrument guarantees high reflectivity accuracy.



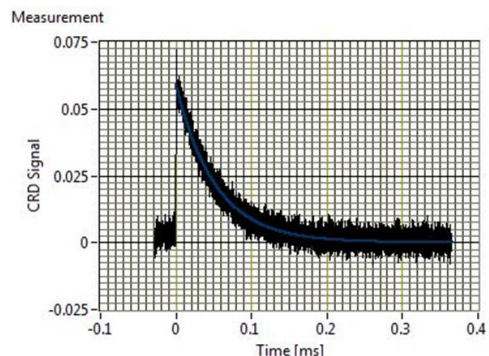
Cavity-Ring-Down (CRD) Technique

Reference Mirror: 0.999978
Calculated Reflectivity: 0.999951 +/- 0.000002



Reflectivity @532nm measured by CRD

Reference Mirror: 0.999973
Calculated Reflectivity: 0.999955 +/- 0.000002



Reflectivity @1064nm measured by CRD