

TECH INFO

LASER WAVELENGTH CHARTS

Spectral colors and wavelengths

This chart shows colors of the visible light spectrum, and the associated wavelengths in nanometers. Ranges are traditionally given as: ultraviolet light, 100-400 nm; visible light, 400-750 nm; and infrared, 750 nm-1 mm.



TECH INFO ON OTHER PAGES

[How gas-ion lasers work](#)

[Laser wavelength charts](#)

Features of Lexel lasers:

[Laser head](#)

[Plasma tube](#)

[Optical resonator](#)

[Power supply](#)

- [Power supply interior](#)

[Single-frequency operation](#)

- [Model 503 Etalon](#)

- [Typical frequency stability](#)

Major laser wavelengths

This chart shows common types of lasers, and the major wavelengths associated with them. (Additional charts showing ion lasers' major wavelengths are on [this page](#).)

Lexel model numbers are given for applicable Gas-Ion and deep UV Gas-Ion Second Harmonic Generation (SHG) lasers. For more information, click on the Lexel model number link. Note that additional custom laser wavelengths may be possible; [contact](#) Cambridge Lasers for more information.

Lasing Medium	Laser Type	Wavelength	Lexel Model
FAR INFRARED			
Er:Glass	Solid State	1540 nm	
NEAR INFRARED			
Cr:Forsterite	Solid State	1150-1350 nm	
HeNe	Gas	1152 nm	
Argon	Gas-Ion	1090 nm	85/95 Argon
Nd:YAP	Solid State	1080 nm	
Nd:YAG	Solid State	1064 nm	
Nd:Glass	Solid State	1060 nm	
Nd:YLF	Solid State	1053 nm	
Nd:YLF	Solid State	1047 nm	
InGaAs	Semiconductor	980 nm	
Krypton	Gas-Ion	799.3 nm	85/95 Krypton
Cr:LiSAF	Solid State	780-1060 nm	
GaAs/GaAlAs	Semiconductor	780-905 nm	
Krypton	Gas-Ion	752.5 nm	85/95 Krypton
Ti:Sapphire	Solid State	700-1000 nm	
VISIBLE			
Ruby	Solid State	694 nm	
Krypton	Gas-Ion	676.4 nm	85/95 Krypton
Krypton	Gas-Ion	647.1 nm	85/95 Krypton, ColorPro III/III-HP, BeamPro R
InGaAlP	Semiconductor	635-660 nm	
HeNe	Gas	633 nm	

Ruby	Solid State	628 nm	
HeNe	Gas	612 nm	
HeNe	Gas	594 nm	
Cu	Metal vapor	578 nm	
Krypton	Gas-Ion	568.2 nm	<u>85/95 Krypton, ColorPro III/III-HP, BeamPro R</u>
HeNe	Gas	543 nm	
DPSS	Semiconductor	532 nm	
Krypton	Gas-Ion	530.9 nm	<u>85/95 Krypton, ColorPro III/III-HP, BeamPro R</u>
Argon	Gas-Ion	514.5 nm	<u>85/95 Argon, ColorPro III/III-HP, BeamPro V/X</u>
Cu	Metal vapor	511 nm	
Argon	Gas-Ion	501.7 nm	<u>85/95 Argon, ColorPro III/III-HP, BeamPro V/X</u>
Argon	Gas-Ion	496.5 nm	<u>85/95 Argon, ColorPro III/III-HP, BeamPro V/X</u>
Argon	Gas-Ion	488.0 nm	<u>85/95 Argon, ColorPro III/III-HP, BeamPro V/X</u>
Argon	Gas-Ion	476.5 nm	<u>85/95 Argon, ColorPro III/III-HP, BeamPro V/X</u>
Argon	Gas-Ion	457.9 nm	<u>85/95 Argon, ColorPro III/III-HP, BeamPro V/X</u>
HeCd	Gas-Ion	442 nm	
N2+	Gas	428 nm	
Krypton	Gas-Ion	416 nm	
NEAR ULTRAVIOLET			
Argon	Gas-Ion	364 nm (UV-A)	<u>85/95 Argon special order optics</u>
XeF	Gas (excimer)	351 nm (UV-A)	
N2	Gas	337 nm (UV-A)	
XeCl	Gas (excimer)	308 nm (UV-B)	
FAR ULTRAVIOLET			
Krypton SHG	Gas-Ion/BBO crystal	284 nm (UV-B)	<u>95-SHG-284</u>
Argon SHG	Gas-Ion/BBO crystal	264 nm (UV-C)	<u>85-SHG, 95-SHG-257/257X special order</u>
Argon SHG	Gas-Ion/BBO crystal	257 nm (UV-C)	<u>85-SHG, 95-SHG-257/257X</u>
Argon SHG	Gas-Ion/BBO crystal	250 nm (UV-C)	<u>95-SHG-257/257X special order</u>
Argon SHG	Gas-Ion/BBO crystal	248 nm (UV-C)	<u>85-SHG, 95-SHG-244/244X special order</u>
KrF	Gas (excimer)	248 nm (UV-C)	
Argon SHG	Gas-Ion/BBO crystal	244 nm (UV-C)	<u>85-SHG, 95-SHG-244/244X</u>
Argon SHG	Gas-Ion/BBO crystal	238 nm (UV-C)	<u>95-SHG-244/244X special order</u>
Argon SHG	Gas-Ion/BBO crystal	229 nm (UV-C)	<u>85-SHG, 95-SHG-229</u>
KrCl	Gas (excimer)	222 nm (UV-C)	
ArF	Gas (excimer)	193 nm (UV-C)	

See also

Argon and krypton ion laser wavelength diagrams, on the page [How Gas Ion Lasers Work](#)

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[HOME PAGE](#)

LASERS

Visible gas-ion lasers

- [For science and industry: Lexel 85/95 series](#)
[85/95 detailed specifications](#)
- [For laser displays: Lexel ColorPro/BeamPro series](#)

Deep UV gas-ion laser

- [For science and industry: Lexel 95-SHG](#)

TUBES

[Ceramic replacement tube for Lexel lasers](#)

Ceramic replacement tubes for other lasers

- [Lexel Beta-I tube for Coherent brand lasers](#)
- [Lexel Beta-I tube for Spectra-Physics brand lasers](#)

SUPPORT

Service/support

- [Set up new service request](#)
- [Check progress of existing service request](#)

[Service history of your Lexel laser](#)

[Service contract options](#)

[Manuals and documentation](#)

TECH INFO

General topics

- [How gas-ion lasers work](#)
- [Laser wavelength charts](#)

Features of Lexel lasers

- [Laser head](#)
- [Plasma tube](#)
- [Optical resonator](#)
- [Power supply](#)
 - [Power supply interior](#)
- [Single-frequency operation](#)
 - [Model 503 Etalon](#)
 - [Typical frequency stability](#)

COMPANY

[Quality: Why choose Lexel](#)

[Lexel company profile](#)

[Careers](#)

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[Headquarters office](#)

[International distributors](#)