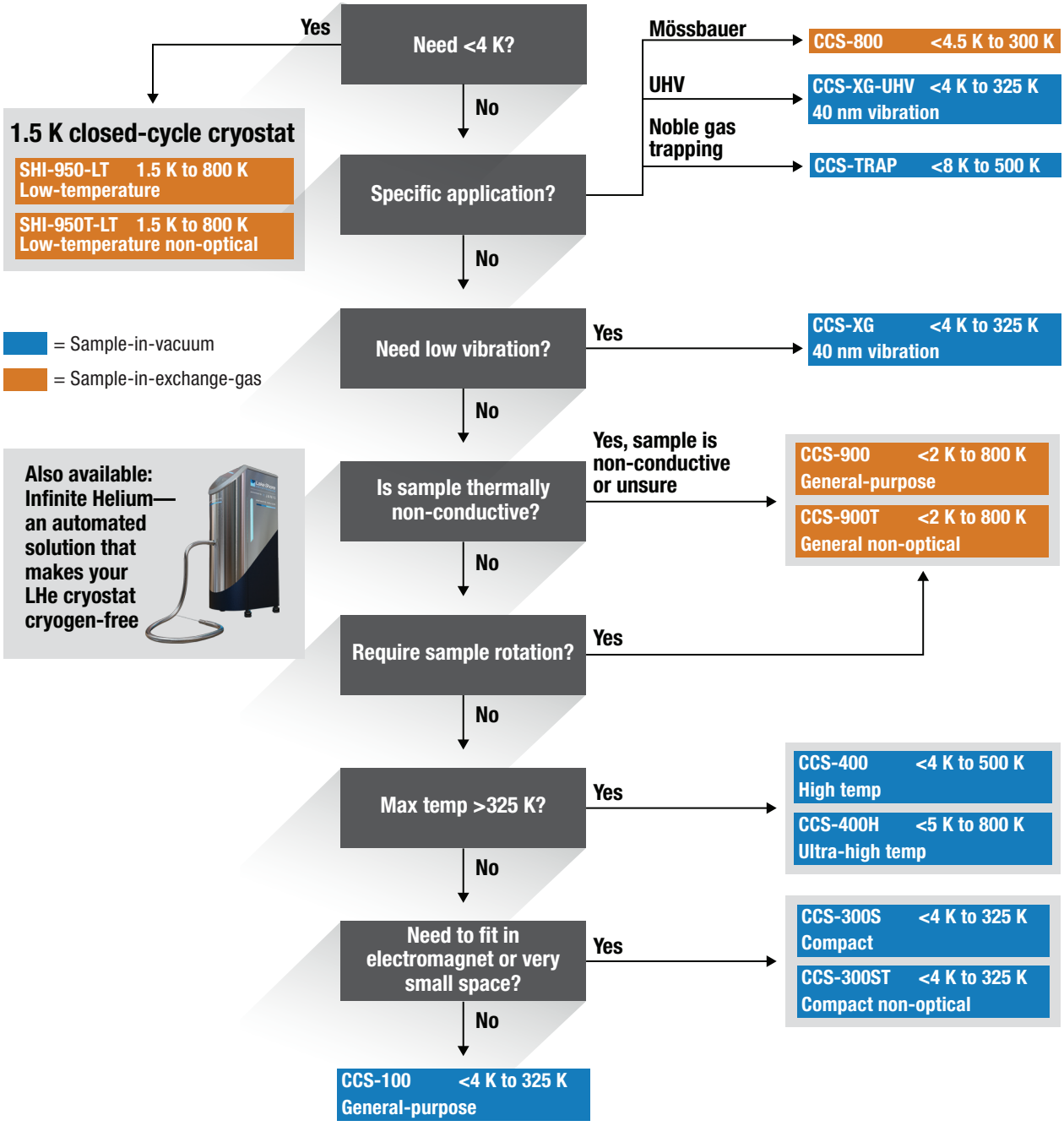
Lake Shore CRYOTRONICS

environment by JANIS

How to choose the right cryostat for you

Use these cryogen-free and LHe and LN_2 decision trees to help you choose the cryostat that fits your specific application and experimental needs.

Cryogen-free



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LHe and LN_2

Also available:
Infinite Helium—an automated solution that makes your LHe cryostat cryogen-free

Application-specific?

Yes

NMR

STVP-NMR Non-optical	<2 K to 325 K

or

UHV

ST-400 High-temp	2 K to 500 K
ST-400-H Ultra-high temp	2 K to 800 K

or

Microscopy/low-vibration

ST-500 <15 nm vibration	3.5 K to 475 K
ST-500-C <15 nm vibration, compact	6 K to 475 K

or

FTIR

VPF-FTIR	65 K to 500 K
ST-FTIR	2.5 K to 500 K
STVP-FTIR	<2 K to 325 K

No

Is sample thermally non-conductive?

Yes, sample is non-conductive or unsure

No, sample is conductive

Is sample throughput critical?

Yes, <10 min sample change

No

Require sample rotation?

Yes

No

Need to fit in electromagnet or very small space?

No

Yes

ST-300	2 K to 420 K Magnetotransport
ST-300-C	2 K to 420 K Magnetotransport Compact

CryoComplete™ with VPF-100	
VPF-100	65 K to 325 K
VPF-100-H	65 K to 800 K
ST-100	2 K to 500 K
ST-100-H	2 K to 800 K

For optical applications

VNF-100	65 K to 325 K
STVP-100	<2 K to 325 K

For high-temp (non-optical) applications

VNF-100-TH	65 K to 500 K
STVP-100-TH	<2 K to 420 K

Best for non-conductive samples (works equally well with conductive samples). Best for temperature uniformity.

= LHe/LN_2 sample-in-vacuum

= LN_2 sample-in-vacuum

= LHe/LN_2 sample-in-flowing-vapor

= LN_2 sample-in-flowing-vapor