

# ASPHIRE

# SPECTRO

*Analyze Differently*



maximize productivity with reliable metals analysis

• Ferrous • Non-ferrous metals • Alloys

# ASPHIRE

# SPECTRO

## OVERVIEW

Established in 2016, Asphire System provides a wide range of Optical Emission Spectrometer, Concomitant Accessories, and Services to meet the spectrochemical needs of metal industries. Our product portfolio covers Optical / Spark Emission Spectrometers, Sample Preparation Machines, Argon Purifiers, Small Sample Adapters, Magnetic Holders for spectrometers.

Today the Company Founders is having the experience over 22 years serving the needs of Industry and has a true experience spread across the globe.

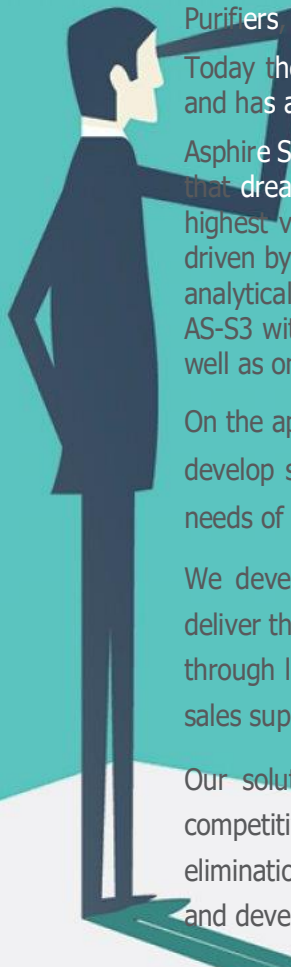
Asphire System is boon to the industry for Micro, Small and Medium Enterprises, Clusters and is making that dream of the world come true to ensure that every customer has a spectrometer to deliver the highest value for their specific applications for producing quality material. Our product philosophy is driven by the focus on offering a range of tailor-made models, to meet specific customer needs – both analytical and financial. On the outset, we offer the world's widest span of high-end R&D-grade Model AS-S3 with wavelength from 115 ~ 800 nm positioned to be the best-in-class in terms of features as well as on economic value.

On the applications front, Asphire Systems is having in-house R&D and Application team, we routinely develop software and hardware solutions and applications that are customized to meet the specific needs of specific customers.

We developed all our offerings – products, applications, and services – with the commitment to deliver the highest standards of quality, reliability, and uptime. We also offer the lowest lifecycle costs through low maintenance cost, backed with routine follow-up on our installed instruments and after-sales support to our customers.

Our solutions have helped clients improve the quality of their products and also provided cost competitive solutions w.r.t the competition and saved their revenues through material cost savings, elimination of rework / rejections, drastic improvements in productivity and of course, in the research and development process.

Presently, our instruments backed several leading companies across various industries and geographical markets. With the rapid increase of Asphire System footprints, we have expanded our installation base of 400+ customers already.



# ASPHIRE SPECTRO



## Asphire AS-S3 Technical Specifications

### CMOS/CCD

- High resolution CMOS/CCD multi detectors

### Optics

- Stabilized against temperature fluctuations
- Effective wavelength range: 115-800 nm, the applicable and configured wavelength range is based on the customer's application requirements
- Automated profiling

### Analysis Modules

- Optimized to customer requirements
- Expansion of additional modules on-site possible

### Spark Stand

- Open spark stand for high sample throughput and various kinds of sample geometries
- Minimized argon consumption Controlled with Software
- Optimized argon flow
- Reduced cleaning intervals
- Spark stand plate easily exchangeable

### Excitation System.

Fully digitalized plasma generator with digital discharge definition, digital pulse generation and digital offline pulse control  
Max. spark frequency: 1000 Hz

### Readout System

Single board readout system  
Dedicated controlled System for each CMOS/CCD detector

### Spectrometer PC (minimum configuration)

- Intel® Core™ i3/i5/i7
- 8 GByte RAM
- 500 GB SSD
- DVD +/- RW Drive
- Graphic adapter
- USB ports
- Audio sound card
- 2 Network adapters
- Windows 10/11™ 64 Bit Professional Operating System
- Keyboard and mouse
- Monitor
- Printer

### Software

- Asphire Analytical Software for analytical operation and calibration
- Continuous automatic hardware diagnosis in the background
- Automatic alloy verification and identification
- Result Manager
- Maintenance Scheduler

### Environmental Conditions

- Room temperature: 18-28°C maintained with AC
- Relative humidity: <80 %, non-condensing
- Atmosphere: free of corrosive vapors and high dust pollution

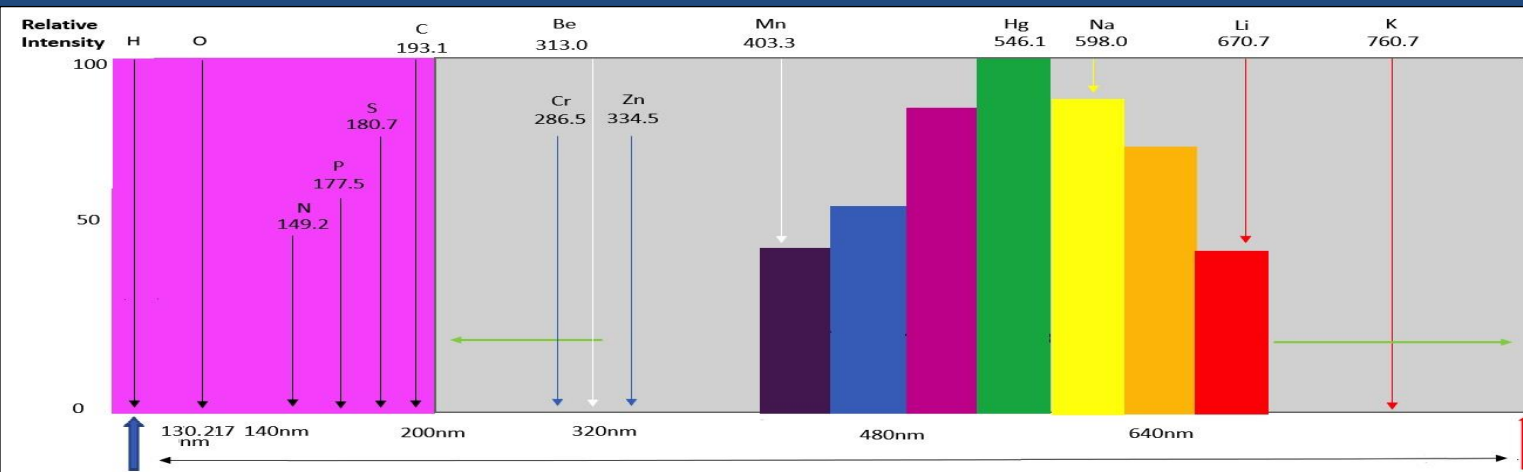
### Spectrometer Data

- 220 V 50 Hz 1 Ph. Earthing below 1 V
  - Max. 800 VA during sparking
  - Version (Higher End):
- | Benchtop       | Floor model |
|----------------|-------------|
| Depth: 800 mm  | 800 mm      |
| Width: 700 mm  | 700 mm      |
| Height: 450 mm | 1250 mm     |
| Weight: 70 kg  | 120 kg      |

Asphire Spectro Model AS-S3 is an Optimum Decision to the quick analysis with high accuracy and precision for the customer. These Laboratory Instruments can work due to the excitations of the electrons via the addition of energy which is in the form of some wavelength of the electromagnetic radiation which is usually light or ultraviolet.

AS-S3 is an advanced CCD/CMOS based Optical Emission Spectrometer and have the multi base and matrices (Ferrous, Aluminum, Copper, Nickel, Zinc, Tin, Lead, Titanium etc.) for Metal Analysis.

AS-S3 is one of the lightest ultra- compact spark Emission, Excellent performance, and competitive price. AS-S3 Model have 55+ elements and we can also upgrade as per customer requirements.

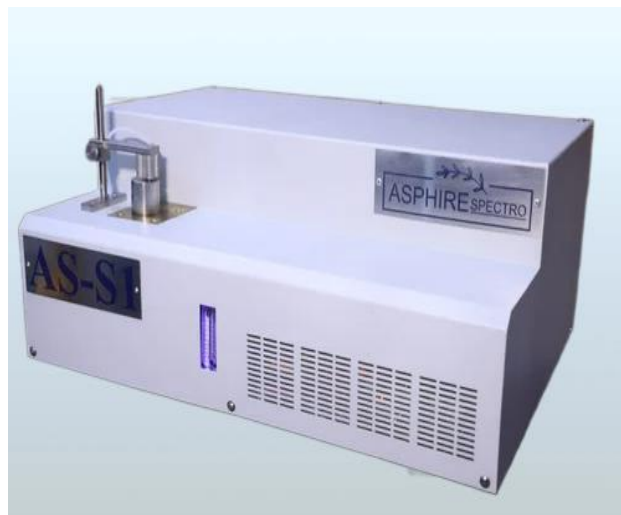




## A TYPICAL ANALYTICAL RESULT OF ASPHIRE OES

**Base : Fe | Matrix : MS/CS/LAS | Customer Sample LS01**

	Elements	Scan1	Scan2	Scan3	Scan4	Scan5	Mean	SD
Select Channel	C	0.1463	0.1463	0.1451	0.1451	0.1451	0.1456	0.0007
	Si	0.3994	0.3994	0.3989	0.3989	0.3989	0.3991	0.0003
Standardisation	Mn	0.6450	0.6450	0.6447	0.6447	0.6447	0.6448	0.0001
	P	0.0394	0.0394	0.0393	0.0393	0.0393	0.0394	0.0001
Scan	S	0.0434	0.0434	0.0433	0.0433	0.0433	0.0433	0.0001
	Cr	5.9534	5.9534	5.9627	5.9627	5.9627	5.9590	0.0051
	Mo	0.6819	0.6819	0.6804	0.6804	0.6804	0.6810	0.0009
Retrieve Data	Ni	0.2646	0.2646	0.2633	0.2633	0.2633	0.2638	0.0007
	Al	0.1512	0.1512	0.1501	0.1501	0.1501	0.1505	0.0006
Stop Initial Purge	Cu	0.0529	0.0529	0.0528	0.0528	0.0528	0.0528	0.0001
	Ti	0.0894	0.0894	0.0894	0.0894	0.0894	0.0894	0.0000
Exit	V	0.0726	0.0726	0.0721	0.0721	0.0721	0.0723	0.0003
	Nb	0.0308	0.0308	0.0305	0.0305	0.0305	0.0306	0.0002
	W	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	0.0000
	Co	0.2133	0.2133	0.2107	0.2107	0.2107	0.2117	0.0014
	B	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0000
	Sn	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0000
	As	0.0247	0.0247	0.0245	0.0245	0.0245	0.0245	0.0001
	Pb	0.0253	0.0253	0.0252	0.0252	0.0252	0.0252	0.0001
	Ca	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0000
	N	0.0271	0.0271	0.0270	0.0270	0.0270	0.0270	0.0000
	Sb	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.0000
	Bi	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0000
	Fe	91.1189	91.1189	91.1199	91.1199	91.1199	91.1195	0.0005
	CE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



## Asphire AS-S1 Technical Specifications

CMOS/CCD	<ul style="list-style-type: none"><li>High resolution CMOS/CCD multi detectors</li></ul>	Spectrometer PC (minimum configuration)	<ul style="list-style-type: none"><li>Intel® Core™ i3/i5/i7</li><li>8 GByte RAM</li><li>500 GB SSD</li></ul>										
Optics	<ul style="list-style-type: none"><li>Stabilized against temperature fluctuations</li><li>Effective wavelength range: 170-430 nm, the applicable and configured wavelength range is based on the customer's application requirements</li><li>Automated profiling</li></ul>		<ul style="list-style-type: none"><li>DVD +/- RW Drive</li><li>Graphic adapter</li><li>USB ports</li><li>Audio sound card</li><li>2 Network adapters</li><li>Windows 10/11™ 64 Bit Professional Operating System</li><li>Keyboard and mouse</li><li>Monitor</li><li>Printer</li></ul>										
Analysis Modules	<ul style="list-style-type: none"><li>Optimized to customer requirements</li><li>Expansion of additional modules on-site possible</li></ul>		Software <ul style="list-style-type: none"><li>Asphire Analytical Software for analytical operation and calibration</li><li>Continuous automatic hardware diagnosis in the background</li><li>Automatic alloy verification and identification</li><li>Result Manager</li><li>Maintenance Scheduler</li></ul>										
Spark Stand	<ul style="list-style-type: none"><li>Open spark stand for high sample throughput and various kinds of sample geometries</li><li>Minimized argon consumption Controlled with Software</li><li>Optimized argon flow</li><li>Reduced cleaning intervals</li><li>Spark stand plate easily exchangeable</li></ul>	Environmental Conditions	<ul style="list-style-type: none"><li>Room temperature: 18-28°C maintained with AC</li><li>Relative humidity: &lt;80 %, non-condensing</li><li>Atmosphere: free of corrosive vapors and high dust pollution</li></ul>										
Excitation System.	Fully digitalized plasma generator with digital discharge definition, digital pulse generation and digital offline pulse control Max. spark frequency: 1000 Hz	Spectrometer Data	<ul style="list-style-type: none"><li>220 V 50 Hz 1 Ph. Earthing below 1 V</li><li>Max. 800 VA during sparking</li><li>Version (Higher End):</li></ul>										
Readout System	Single board readout system Dedicated controlled System for each CMOS/CCD detector		<table><tr><th>Benchtop</th><th>Floor model</th></tr><tr><td>Depth: 800 mm</td><td>800 mm</td></tr><tr><td>Width: 700 mm</td><td>700 mm</td></tr><tr><td>Height: 450 mm</td><td>1250 mm</td></tr><tr><td>Weight: 70 kg</td><td>120 kg</td></tr></table>	Benchtop	Floor model	Depth: 800 mm	800 mm	Width: 700 mm	700 mm	Height: 450 mm	1250 mm	Weight: 70 kg	120 kg
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Depth: 800 mm	800 mm												
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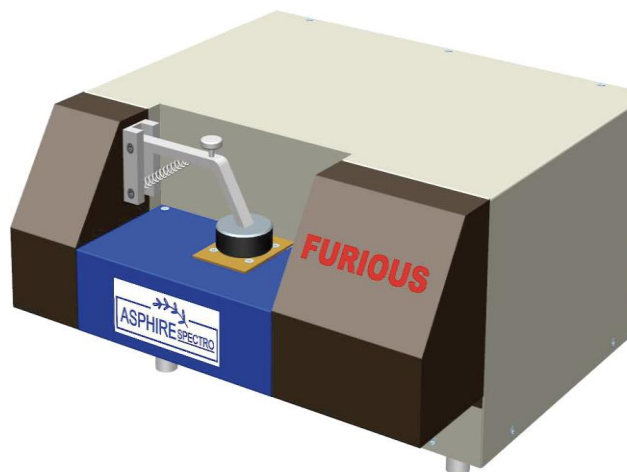
Asphire Spectro Model AS-S1 is an Optimum Decision to the quick analysis with high accuracy and precision for the customer. These Laboratory Instruments can work due to the excitations of the electrons via the addition of energy which is in the form of some wavelength of the electromagnetic radiation which is usually light or ultraviolet.

AS-S1 is an advanced CCD/CMOS based Optical Emission Spectrometer and have the multi base and matrices (Ferrous, Aluminum, Copper, Nickel, Zinc, Tin, Lead, Titanium etc.) for Metal Analysis.

AS-S1 is one of the lightest ultra- compact spark Emission, Excellent performance, and competitive price. AS-S1 Model have 25+ elements and we can also upgrade as per customer requirements

# maximize productivity with reliable metals analysis

• Ferrous • Non-ferrous metals • Alloys



## Asphire AS-S2 Technical Specifications

CMOS/CCD	<ul style="list-style-type: none"><li>High resolution CCD Single detector</li></ul>	Spectrometer PC (minimum configuration)	<ul style="list-style-type: none"><li>Intel® Core™ i3/i5/i7</li><li>8 GByte RAM</li><li>500 GB SSD</li></ul>									
Optics	<ul style="list-style-type: none"><li>Stabilized against temperature fluctuations</li><li>Effective wavelength range: 170-410 nm, the applicable and configured wavelength range is based on the customer's application requirements</li></ul>		<ul style="list-style-type: none"><li>DVD +/- RW Drive</li><li>Graphic adapter</li><li>USB ports</li><li>Audio sound card</li><li>2 Network adapters</li><li>Windows 10/11™ 64 Bit Professional Operating System</li><li>Keyboard and mouse</li><li>Monitor</li><li>Printer</li></ul>									
Analysis Modules	<ul style="list-style-type: none"><li>Optimized to customer requirements</li></ul>		Software	<ul style="list-style-type: none"><li>Asphire Analytical Software for analytical operation and calibration</li><li>Continuous automatic hardware diagnosis in the background</li><li>Result Manager</li><li>Maintenance Scheduler</li></ul>								
Spark Stand	<ul style="list-style-type: none"><li>Open spark stand for high sample throughput and various kinds of sample geometries</li><li>Minimized argon consumption Controlled with Software</li><li>Optimized argon flow</li><li>Reduced cleaning intervals</li><li>Spark stand plate easily exchangeable</li></ul>		Environmental Conditions	<ul style="list-style-type: none"><li>Room temperature: 18-28°C maintained with AC</li><li>Relative humidity: &lt;80 %, non-condensing</li><li>Atmosphere: free of corrosive vapors and high dust pollution</li></ul>								
Excitation System.	Fully digitalized plasma generator with digital discharge definition, digital pulse generation and digital offline pulse control Max. spark frequency: 1000 Hz	Spectrometer Data	<ul style="list-style-type: none"><li>220 V 50 Hz 1 Ph. Earthing below 1 V</li><li>Max. 800 VA during sparking</li><li>Version (Higher End):</li></ul>									
Readout System	Single board readout system Dedicated controlled System for each CCD detector		<table><tr><td><b>Benchtop</b></td><td><b>Floor model</b></td></tr><tr><td>Depth: 700 mm</td><td>700 mm</td></tr><tr><td>Width: 600 mm</td><td>600 mm</td></tr><tr><td>Height: 400 mm</td><td>1250 mm</td></tr><tr><td>Weight: 60 kg</td><td>100 kg</td></tr></table>	<b>Benchtop</b>	<b>Floor model</b>	Depth: 700 mm	700 mm	Width: 600 mm	600 mm	Height: 400 mm	1250 mm	Weight: 60 kg
<b>Benchtop</b>	<b>Floor model</b>											
Depth: 700 mm	700 mm											
Width: 600 mm	600 mm											
Height: 400 mm	1250 mm											
Weight: 60 kg	100 kg											

Asphire Spectro Model AS-S2 is an Optimum Decision to the quick analysis with high accuracy and precision for the customer. These Laboratory Instruments can work due to the excitations of the electrons via the addition of energy which is in the form of some wavelength of the electromagnetic radiation which is usually light or ultraviolet.

AS-S2 is an advanced CCD based Optical Emission Spectrometer and have the single base and multi matrices (Ferrous, Aluminum, Copper, Nickel, Zinc, Tin, Lead, Titanium etc.) for Metal Analysis.

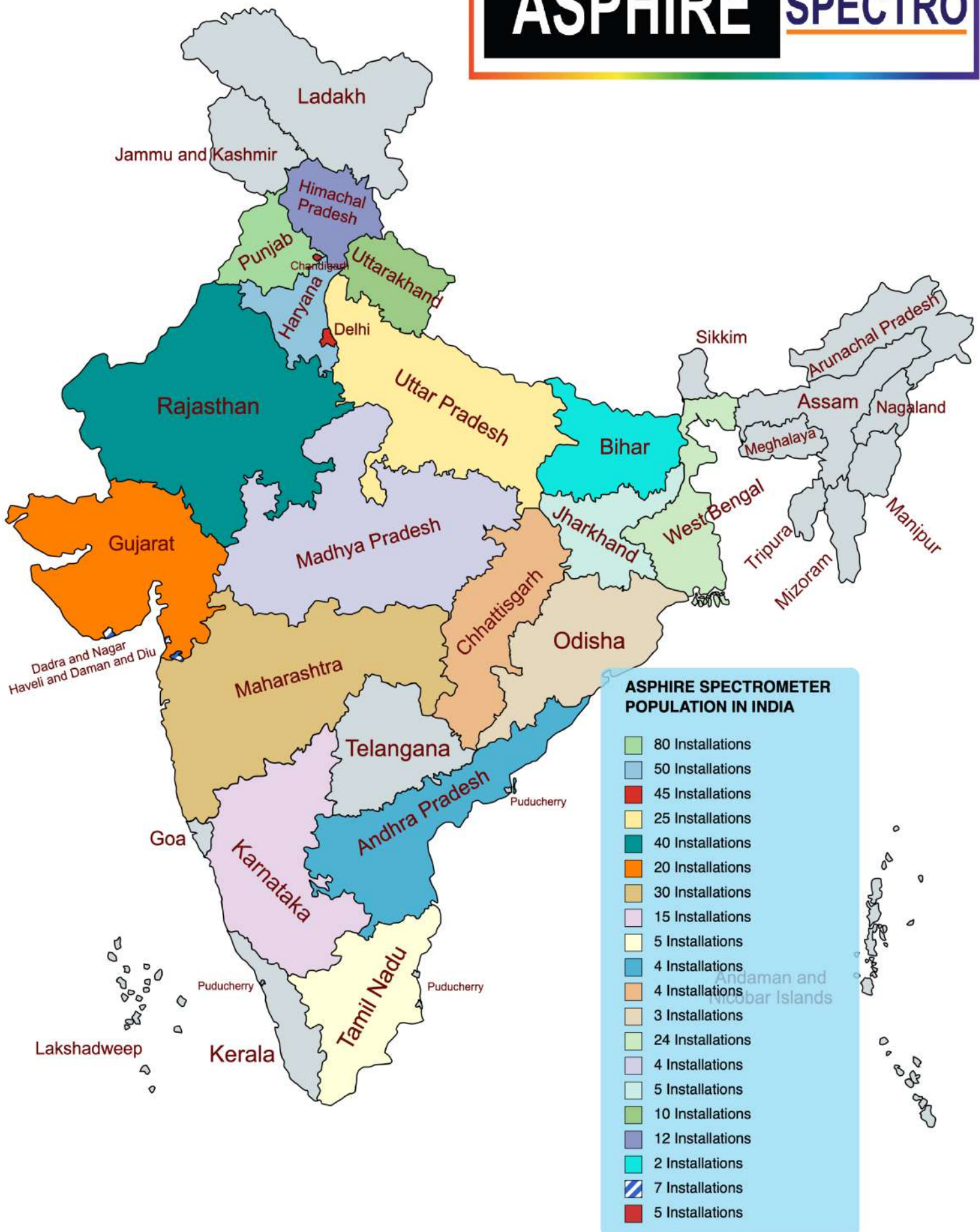
AS-S2 is one of the lightest ultra- compact spark Emission, Excellent performance, and competitive price. AS-S2 Model have 15+ elements .

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# ASPHIRE SPECTRO



customer satisfaction

## SOME OF OUR ESTEEMED CUSTOMERS



# ASPHIRE SPECTRO

## Asphire System OPC Pvt. Ltd.

Manufacturing Plant: - 999, Gandhi Colony, NIT Faridabad -121001

Ph: - +91 129 4042225 | Hand Phone: - +91 9971013042 | +91 9311816521

e-mail: - [asphiresystems@gmail.com](mailto:asphiresystems@gmail.com), [contact@asphiresystem.czom](mailto:contact@asphiresystem.czom);

Website : [www.asphiresystem.com](http://www.asphiresystem.com)