WHAT IF NO ONE EVER ASKED...
WHAT IF?

Innovation happens when you see past what is... and imagine what could be. Through the years, Agilent's commitment to connection, community, and collaboration have transformed our analytical labs, our industries... and our world.

This poster showcases just a few of Agilent's key innovations in column chemistries and instrumentation.

See how Agilent has led the way in lasting innovation for more than 50 years.
www.agilent.com/chem/innovation

Agilent Technologies




1938
A New Beginning
Bill Hewlett and Dave Packard start their business in a one-car garage, with $538. Their first product: an audio oscillator.

In 1987, the garage is registered as a California Historical Landmark.

Did you know...
The Hewlett-Packard audio oscillator was used to test equipment during the making of Walt Disney's "Fantasia" in 1939.

1973
5830 GC
The first microprocessor-controlled GC makes its debut.

Robert Metcalfe figures out a simple way to link computers together. He names it "Ethernet."

1973
HP 1010 HPLC
Weighing more than half a ton, the 1010 is the first HPLC instrument with the Hewlett Packard label. The columns are packed with state-of-the-art 57 µm particles.




1976
HP 5992A
The first benchtop GC/MS is introduced.

Viking 1 successfully lands on Mars and remains operational for six years.

1979
Fused Silica Capillary Columns
This breakthrough technology simplifies GC analysis and allows more compounds to be analyzed.

The smallpox virus becomes the first human disease to be rendered extinct.

1985
LC/MS Thermospray Interface
HP advances LC/MS with the Thermospray Interface for the 5988A LC/MS, allowing it to be used with reversed phase solvents.

The Internet's Domain Name System (DNS) is created.

1994
HP 4500 ICP/MS
The world's first benchtop ICP-MS enables routine trace-metal analysis.

Andrew Wiles proves Fermat's Last Theorem—*Guinness'* "most difficult mathematical problem."




Did you know...
Agilent introduced the world's brightest LED in 1994. Combining intensity, reliability, and low power consumption, it replaced incandescent lamps in many new applications.

1995
1100 Series HPLC
The easy to use, modular design leads it to become the world's most popular HPLC.

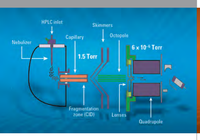
The DVD, an optical disc computer storage media, makes its appearance.

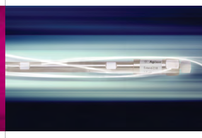
1995
6890 GC
First GC to include Retention Time Locking and Backflush to prevent sample matrix from contaminating the GC system.

The World Trade Organization was founded.

1997
1100 Series LC/MSD
Agilent designs its first benchtop LC/MSD.

Dolly the sheep becomes the first successfully cloned mammal.



1997
Orthogonal ESI Source
This Agilent LC/MS source sets a new standard for cleanliness and interference control.

Toyota Prius, the first full-production hybrid vehicle, is unveiled in Japan.

2001
Poroshell 300
Groundbreaking particle technology is built into these first commercially available superficially porous columns.

The first draft of the Human Genome Project is published.

2003
Agilent LC/MSD TOF
Featuring an innovative invar flight tube, it is one of the industry's first accurate mass LC/MS instruments.

Apple introduces the iTunes Store.

2003
ZORBAX RRHT
The industry's first sub-2 µm columns combine speed with resolution.

The first cold cathode fluorescent lamps (CCFLs) debut.




Did you know...
Agilent made a cameo appearance in movies like "The Incredible Hulk," "Transformers," and "Spiderman." In "The Avengers," Tony Stark's workbench featured several Agilent (now Keysight) electronic measurement instruments.

2005
HPLC-Chip/MS
This system is the industry's first microfluidic HPLC-Chip/MS for proteomics.

HP introduces nanotechnology that could replace traditional transistors on computer chips.

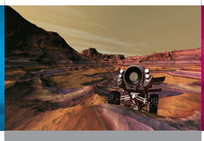
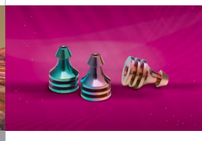
2005
Multimode Ion Source
More than an Agilent first, this time-saving source is also a world first.

The first human face transplant is performed in France.

2008
Agilent J&W Ultra Inert
Never before have GC columns provided consistent column inertness and exceptionally low column bleed.

The Large Hadron Collider (LHC) is inaugurated.



2011
Inert OneNeb Nebulizer
ICP-OES and MP-AES are now more sensitive and tolerant to dissolved solids.

The first artificial organ transplant is achieved, using an artificial windpipe coated with stem cells.

2011
4100 MP-AES
This breakthrough elemental analysis instrument runs entirely on air.

The global population reaches seven billion—only 12 years after reaching six billion.

Did you know...
In 2011, Agilent J&W UltiMetal GC columns headed to Mars aboard NASA's Curiosity Rover in the search for evidence of life.

2013
UltiMetal Plus Inert GC Ferrules
Analysts can worry less about leaks, column breakage, and fitting damage.

Peter Higgs and Francois Englert win the Nobel Prize for discovering the Higgs boson ("God Particle").




2013
PLOT PT GC Columns
Damaging particles are trapped at both column ends for worry-free analysis.

Elon Musk announces "hyperloop"—a giant, pneumatic tube transport system project.

2014
A-Line Quick Connect Fittings
Anyone can now make perfect LC connections with ease.

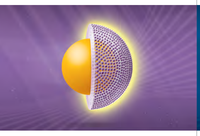
NASA's Voyager 1, launched in 1977, enters interstellar space.

2014
1290 Infinity II LC
Unique Dual-Needle technology for faster sample injection cycles.

The first commercial brain scan, recording thought and memories for future playback, debuts.

2014
4300 Handheld FTIR
Lightweight ergonomics allow non-destructive sample testing anywhere.

Mangalyaan, a space probe of the Indian Space Research Organization, orbits Mars.





2014
Poroshell HPH
The first superficially porous, sub-3 µm columns for high pH.

Juliano Pinto, a paraplegic, gave the first kick of the World Cup using a robotic suit.

2015
EMR—Lipid dSPE
This novel sorbent selectively removes lipids from food samples, using QuEChERS methodology.

100th Anniversary of Albert Einstein's general theory of relativity.

2015
Self Tightening Column Nut
No more loose GC connections! This column nut maintains a leak-free seal with graphite/polyimide ferrules.

Traces of liquid water are discovered on Mars.

2016
AdvanceBio SEC Columns
A newly designed silica particle eliminates roadblocks to mAb characterization.

German scientists are the first to sustain a hydrogen plasma—a key step towards workable nuclear fusion.

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