



AGILENT ANALYTICAL METHOD GUIDE

PROVEN SOLUTIONS FOR CLINICAL RESEARCH AND FORENSIC TOXICOLOGY



Agilent Technologies

HIGH-THROUGHPUT QUANTITATION FOR CLINICAL RESEARCH

Our portfolio of instruments for clinical research includes offerings for conventional high-throughput quantitative analysis, as well as enabling increased throughput up to four-times that of standard LC/MS with our new StreamSelect LC/MS platform. Explore the products and analytical methods shown here to discover how Agilent can help you achieve your laboratory's goals for routine and robust quantitation.



Proven analytical methods

Urinary Vanillylmandelic, Homovanillic, and 5-Hydroxyindoleacetic Acids

by LC/MS/MS

[5991-6053EN](#)

Urinary Catecholamines, Metanephrines, and 3-Methoxytyramine

in a Single LC/MS/MS Run

[5991-6194EN](#)

Rapid Analysis of 25-OH Vitamin D in Serum

Using an Agilent Triple Quadrupole LC/MS System with Automated Online Sample Cleanup

[5991-2035EN](#)

Maximizing Triple Quadrupole Mass Spectrometry Productivity

with the Agilent StreamSelect LC/MS System

[5991-2900EN](#)

Rapid Analysis of Cyclosporine A, Everolimus, Sirolimus, and Tacrolimus

Drugs in Whole Blood Using an Agilent Triple Quadrupole LC/MS/MS System with Automated Online Sample Cleanup

[5991-3344EN](#)

Rapid Analysis of Mycophenolic Acid in Human Plasma

Using an Agilent Triple Quadrupole LC/MS/MS System with Automated Online Sample Cleanup

[5991-3343EN](#)

Sensitive Detection of Three Forms of Thyroid Hormone in Human Serum

Using the Agilent 6490 Triple Quadrupole LC/MS System

[5991-2017EN](#)

Ultra Fast Analysis of

Hydroxymidazolam in Plasma Using the Agilent RapidFire High Throughput Mass Spectrometry System

[5990-9767EN](#)

Ultrafast Analysis of Selective Serotonin Reuptake Inhibitors (SSRIs)

in Human Serum by the Agilent RapidFire High-Throughput Triple Quadrupole Mass Spectrometry System

[5991-3767EN](#)

Ultrafast Analysis of Clozapine and Norclozapine in Serum

Using the Agilent RapidFire High-Throughput Mass Spectrometry System

[5991-3766EN](#)

A Sensitive LC/MS/MS Method for the Quantitation of Telmisartan in Human Plasma

Using the Agilent 6460 Triple Quadrupole LC/MS with Jet Stream Technology

[5990-8669EN](#)

Ultrafast Analysis of Tacrolimus in Whole Blood

Using the Agilent RapidFire High-Throughput Mass Spectrometry System

[5990-9994EN](#)

Two Minute Quantitative Analysis of Immunosuppressant Drugs

[5990-9868EN](#)



Agilent InfinityLab Poroshell 120 columns



Agilent StreamSelect LC/MS System

FORENSIC TOXICOLOGY

Agilent has supported forensic toxicologists for decades with reliable analytical tools and powerful software. In addition to our complete portfolio of GC/MS, LC/MS and high-throughput RapidFire MS products, we support forensic toxicology analysis with analyzers, application kits, and large compound libraries so you can confidently identify and quantify the contents of a myriad of analytes.

You know how difficult it can be to analyze today's designer drugs—synthetic analogs of illegal drugs developed to circumvent drug laws—due to matrix interferences. Agilent has succeeded in using a combination of separation technologies and powerful libraries to manage this challenging problem.



Proven analytical methods

Ultrafast Analysis of Barbiturates

in Urine by the Agilent RapidFire High-Throughput Triple Quadrupole Mass Spectrometry System

[5991-2285EN](#)

Ultrafast Analysis of a Tricyclic Antidepressant Drug Panel in

Human Serum by the Agilent RapidFire High-Throughput Triple Quadrupole Mass Spectrometry System

[5991-3494EN](#)

Ultrafast Screen for Synthetic

Cannabinoids in Urine Using the Agilent RapidFire High-Throughput Mass Spectrometry System

[5991-2286EN](#)

Ultrafast Analysis of THCCOOH in

Urine Using the Agilent RapidFire High-Throughput Mass Spectrometry System

[5990-9763EN](#)

Ultrafast Analysis of Benzodiazepines

in Urine by the Agilent RapidFire High-Throughput Triple Quadrupole Mass Spectrometry System

[5991-0833EN](#)

Ultrafast Screen for Bath Salts in

Urine Using the Agilent RapidFire High-Throughput Mass Spectrometry System

[5991-1881EN](#)

Ultrafast Forensic Screen for

Amphetamines in Urine Using the Agilent RapidFire High-Throughput Mass Spectrometry System

[5991-1571EN](#)

Ultrafast Analysis of Methadone

and Metabolite EDDP in Urine by the Agilent RapidFire High-Throughput Mass Spectrometry System

[5991-1572EN](#)

Ultrafast Analysis of Buprenorphine and Norbuprenorphine in Urine

Using the Agilent RapidFire High-Throughput Mass Spectrometry System

[5991-1376EN](#)

Extraction of Benzodiazepines in Urine with Polymeric SPE Cation Exchange,

Agilent Bond Elut Plexa PCX

[SI-01334](#)



Agilent 6460 Triple Quadrupole LC/MS System



Agilent RapidFire 300 High-throughput Mass Spectrometry System



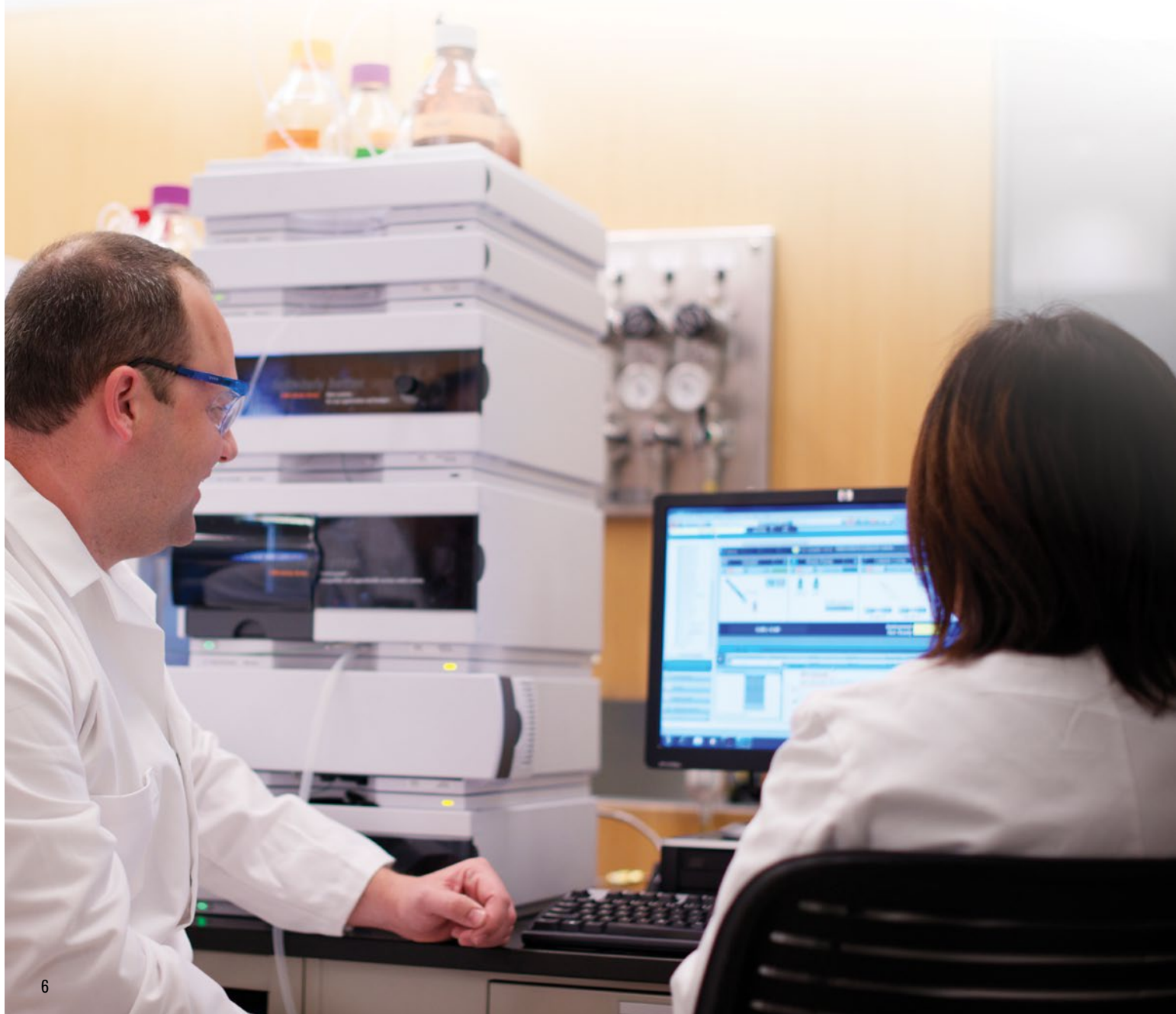
Agilent 5977B GC/MSD System



Agilent Bond Elut SPE sample preparation

AUTOMATED PEPTIDE AND METABOLITE QUANTITATION

Peptide and metabolite quantitation are areas of increasing focus for many clinical researchers who are interested in quantifying potential biomarkers, but preparing samples and developing methodology for targeted biomarker quantitation can be labor intensive and time consuming when done manually. Let us help you automate sample preparation procedures and speed up method development so you can increase accuracy, reproducibility, and speed to opportunity.



Proven analytical methods

Application Kits for Standardizing MRM-based Quantitative Plasma Proteomic Workflows on the Agilent 6490 LC/MS System

[5991-3601EN](#)



Agilent AssayMAP
Bravo platform

Accurate Serum Apolipoprotein A-I and B Measurement Using the Agilent 1290 Infinity LC and 6490 Triple Quadrupole LC/MS System

[5991-2901EN](#)



Agilent 1290 Infinity II LC System

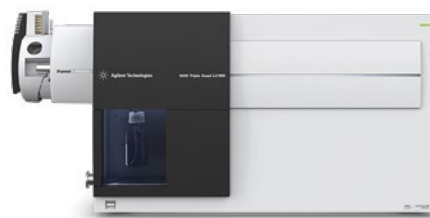
Workflow Automation for LC/MS: In-Solution Protein Digestion, Peptide Cleanup, and Strong Cation-Exchange Fractionation of Peptides Enabled

by AssayMAP Technology

[5991-3602EN](#)

Comprehensive Profiling of Free and Conjugated Estrogens by Capillary Electrophoresis-Time of Flight-Mass Spectrometry

[5990-9669EN](#)



Agilent 6495 Triple Quadrupole LC/MS System



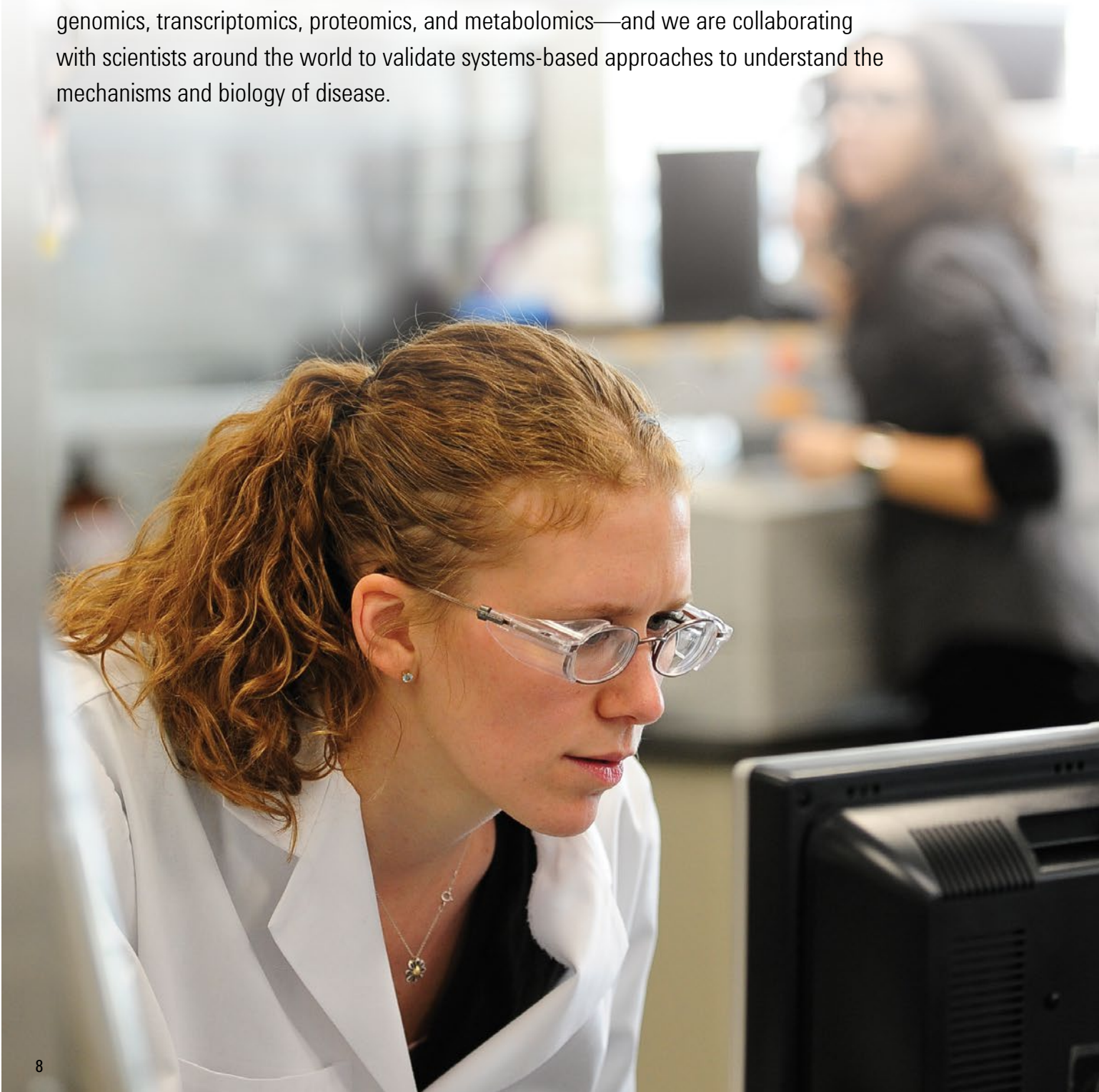
Agilent 7100 Capillary Electrophoresis System



Agilent 6230B TOF LC/MS System

BIOMARKER DISCOVERY

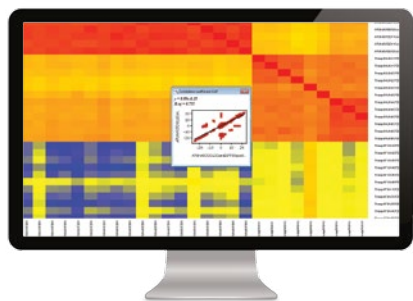
Efforts to discover biomarkers—usually present at low levels and within complex matrices—involve real challenges in terms of both sample preparation and detection. Agilent empowers an integrated approach with leading analytical products across the four major omics—genomics, transcriptomics, proteomics, and metabolomics—and we are collaborating with scientists around the world to validate systems-based approaches to understand the mechanisms and biology of disease.



Proven analytical methods

Quantitation of Cystine and Identification of Related Metabolites in White Blood Cells Using a High Resolution Accurate Mass LC/MS Approach
[5990-9234EN](#)

High Sensitivity Peptide Analysis Using the 6550 Q-TOF with iFunnel Technology
[5990-9000EN](#)



Agilent Mass Profiler Professional software

Adding Retention Times to the METLIN Personal Metabolite Database to Improve Compound Identification
[5989-8546EN](#)



Agilent 6550 Q-TOF LC/MS System with iFunnel technology

High-Throughput, High-Efficiency Metabolome Profiling Using the Agilent 6550 iFunnel Q-TOF LC/MS System
[5990-9762EN](#)

Agilent AssayMAP Bravo Technology Enables Reproducible Automated Phosphopeptide Enrichment from Complex Mixtures Using High-Capacity Fe(III)-NTA Cartridges
[5991-6073EN](#)



Agilent 7200B GC/Q-TOF System

ELEMENTAL ANALYSIS

Clinical researchers are increasingly interested in the detection and quantitative measurement of elements in biological samples. In some cases, this may be associated with the effects of metals that are involved in biological compounds and processes (such as enzymes, transport proteins, toxic or heavy metals, and metal-based drugs). However, elemental analysis can also be applied to the measurement of non-metals such as sulfur, phosphorus and the halogens, whose role is more intrinsic to normal biological processes.

Proven analytical methods

High Performance Graphite Furnace Tube for Determination of Lead in Blood

[si-1586](#)

Determination of Essential and Toxic Metals in Blood by ICP-MS

Using Calibration in a Synthetic Matrix

[5991-2991EN](#)

Simultaneous Quantitation of Peptides and Phosphopeptides by capLC-ICP-MS Using the Agilent 8800 Triple Quadrupole ICP-MS

[5991-1461EN](#)

Sensitive, High-Throughput Analysis of Lead In Whole Blood Using the Agilent 7500cx ICP-MS with ISIS-DS

[5990-5416EN](#)

Fast and Accurate Absolute-Quantification of Proteins and Antibodies Using Isotope Dilution-Triple Quadrupole ICP-MS

[5991-6118EN](#)



Agilent 7900 ICP-MS System



Agilent 8900 Triple Quadrupole ICP-MS System



FROM INSIGHT TO OUTCOME

Agilent CrossLab delivers vital, actionable laboratory insights that drive superior scientific, operational, and economic outcomes.

Our all-inclusive service plans care for your entire laboratory—with rapid on-site support, cross-vendor instrument service, remote instrument diagnostics, and more.

Our expert engineers deliver immediate solutions, whether it is instrument repairs, maintenance, compliance, or laboratory relocation—improving efficiency from one instrument to the entire lab.

Our consultants strategically partner with your team to maximize application workflow and optimize output.

Our broad array of education solutions taught by subject matter experts helps improve expertise and lab productivity.

As the global innovator of laboratory technologies, Agilent CrossLab has created the ultimate, collaborative suite of world-class services, supplies, and software depended on by more than 260,000 labs around the globe—transforming the world into a better place.

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