

OUR GLOBAL PARTNERS

























Total Organic Carbon (TOC Analyzer)

- Measures total amount of organic carbon present in a water sample.
- Based on 680°C Catalytic Combustion & NDIR Detection.
- Range: 4 µg/L to 25,000 mg/L.
- Software for intuitive operability and a wealth of functions.

TOC Monitoring of Process Water:

- Pre-treated Water: Chlorination of clarifiers is controlled to avoid THC formation by monitoring TOC. Backwashing of Sand Filters can be planned using TOC monitoring. Organics removal efficiency by Activated carbon filters can be checked by monitoring TOC.
- Treated Water: Organic fouling of Strong Base Anion (SBA) resins in De-Mineralization (DM) plant can be monitored using TOC. Thereby Rejuvenation / Replacement of resins can be planned.
- Boiler Water: TOC limits in boiler feed water are very stringent, typically ranging from 0.1-0.5mg/L. TOC monitoring of boiler water can help to --- prevent scaling and corrosion of boilers caused by organic acids, identify chloride and sulfate contaminants in condensate by decreasing cation conductivity, identify chloride leakage from Condenser Polishing Unit (CPU) by detecting CO2.
- Cooling Water: TOC limits in cooling water are 70-80ppm. TOC monitoring can help --- detect leaks during cooling system start up, determine tower cycles, manage biofouling in condenser, prevent biofouling / Microbiologically Influenced Corrosion (MIC) in cooling tower nozzles, walls, bay etc.

UV-VIS Spectrophotometer

- Range: 320-1100nm (VIS), 190-1100nm (UV VIS)
- 10/16/20/50 mm cuvette sizes.
- Scan speed: 700-2000 nm/min
- Backlit 7" colour display for extensive graphical evaluation
- > 200 pre-programmed methods, 1000 user-defined methods, 20 profiles for kinetics & spectra
- Storage with Identification Number (ID).
- Special procedures such as Free NH3, CO2, SAC and Color
- COD, NO3, and NO2 via spectral photometric measurement (Reagent Free) in the UV-VIS range

Handheld Meters - Analog

- Up-to-date multi-parameter instruments for analog sensors: pH/mV/ISE, conductivity and dissolved oxygen
- Simultaneous measurement and documentation of up to two parameters
- Robust and waterproof housing.
- Backlit LCD display. Memory 5000 records
- All conventional sensors connectable

Handheld Meters - Intelligent Digital Sensors (IDS)

- Mobile Multi-Parameter measurement with IDS Sensors
- Up to 10 parameters: pH / Oxi / conductivity / turbidity / DO / ORP etc.
- Rugged, dust and waterproof IP67
- Single-piece keypad with embossed keys
- Triple, dual or single channel versions
- Rechargeable battery for economic operation
- Wireless ready wherever cables are not suited
- Large memory. USB communication.



Colorimeters

- Intuitive and easy operation.
- Backlit display.
- More than 180 programs for standard parameters.
- 16 mm / 28 mm cuvette sizes.
- Robust and waterproof (IP67).
- Energy-efficient LED optics.
- Equipped with 6 wavelengths.
- Test kits for every demand: from high precisely to easy, fast and economic.
- Storage with Identification Number (ID).
- Datafilter for easy selection of data sets.
- Optional parameters: Free NH3 & CO2 / pH, ORP & Turbidity.

Benchtop Meters - Analog

- 2-channel pH/ORP/ISE
- Memory 500 manual/5000 automatic
- Pre-set ions: Ag, Br, Ca, Cd, Cl, CN, Cu, F, I, K, Na, NO3, Pb, S, NH3, NH4,
- Adjustable AutoRead criteria (low/medium/high)
- Optional built-in printer

Benchtop Meters - Intelligent Digital Sensors (IDS)

- Multi-Parameter measurement in the lab with IDS Sensors
- Up to 11 parameters : pH / ORP / cond. / DO / ISE / turbidity etc.
- Wireless or tethered work according your convenience & use future options
- Triple, dual or single channel versions for all purposes
- Large memory. USB communication.
- Suitable for different applications with stand and power supply

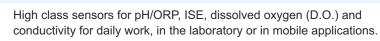


pH/ORP, ISE, Dissolved Oxygen, Conductivity: Sensors



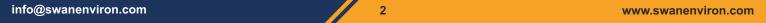






- A variety of sensors support reliable and secure results in different applications.
- Types: pH Electrodes, Oxygen Sensors, Conductivity Cells and Process Sensors.







Total Organic Carbon (TOC Analyzer)

TOC Monitoring of Drinking Water:

- TOC limits for drinking water typically range between 1 to 3 ppm.
- Limits primarily imposed to control carcinogenic DBPs viz., THMs and HAAs, which form during chlorination when Chlorine mixes with Organics. Continuous TOC monitoring before chlorination was also mandated.
- Organics removal efficiency by DWTPs can be optimized by monitoring TOC & alkalinity levels of intake water. Alkalinity hinders TOC removal. Depending on the levels suitable treatment processes can be taken.



Chlorine Determination Kits

- To determine Free chlorine, Total Chlorine & Ozone in drinking water
- Add DPD Test Tablets to water sample and do colorimetric analysis
- Free/Total Chlorine range: 0-10 ppm.
- Ozone range: 0-1ppm.
- Colorimetric analysis using Color chart / Slide Comparator Kit / Photometer
- Application: to ensure safe drinking water reaches end consumer (Free Cl range: 0.2-0.5ppm)
- Advantages: distinguishes Free CI from Total CI; more accurate with less rate of error; not carcinogenic method, as per IS 3025:2021.







Water Quality Test Kits





- Prefilled reagents. Add sample. Do colorimetric comparison.
- · Results in 30s. Easy & highly accurate.
- Anyone can use it anywhere.
- Free from toxic or hazardous substances.
- 70+ test parameters viz., Ammonium, Total Nitrogen, Arsenic, Fluoride, lead etc.
- Capture color samples with a smartphone app and digitize the assessment results.

Digital Multi Parameter Test Kit

- Eliminate guesswork out of water analysis.
- Parameters: Free chlorine (DPD), Total Chlorine (DPD), Bromine (DPD), pH, Alkalinity, Calcium hardness, Cyanuric acid, Iron and Copper



- Results on digital display.
- Rugged kit features Handheld Photometer, economical liquid reagents along with easy to use TesTabs® tablets.
- Can also measure Biguanide with optional additional reagents.
- Free Chlorine, Total Chlorine, Bromine, and pH: Using liquid reagents. 288tests/60mL bottle.
- Alkalinity, Calcium Hardness, Cyanuric Acid, Copper and Iron: Using 1 TesTabs® tablet/test. 100 tablets in kit.

Automated Water Analyzer

- Future of water testing!
- Revolutionary Technology!!!
- Simply Inject Sample, Insert Disk, Press "Run"
- Auto: Mixing Timing Measuring
- 10 Tests in 60 Seconds
- Accurate Wet Chemistry Methods
- Drinking water parameters (Water Link Spin Touch DW):
 - Treated Water: Free Cl, Total Cl, Combined Cl, pH, Total Hardness, Total Fe, Cu, Total Alkalinity
 - Well Water: pH, Total Hardness, Total Fe, Ferric Iron, Ferrous Iron, Cu, NO₃, NO₂, Total Alkalinity
- Boiling and Cooling waters (Water Link Spin Touch BC): Total Alkalinity, Br, Free Cl, Total Cl, Combined Cl, Cu, Ca Hardness, Total Hardness, Total Fe, Phosphate and Silica

Trimeter for Turbidity, Chlorine, Color

- Ranges Turbidity: 0-4,000 NTU, CI: 0-10ppm, Colour: 0-800CU
- Meets ISO 7027/EPA 180.1 for turbidity meters
- Records upto 4,000 time-stamped data points
- Stored tests can be viewed on the meter or downloaded to a PC.



Pocket Testers

- Multi parameter options:
 - Salt / TDS / Cond. / Temp
 - Salt / TDS / pH / Temperature



• Built in Battery. Optional Memory storage. Large Display Reagents also available .

On-line Multi Parameter Analyzer (CI, Turb., pH, Temp.)

- CI Range: 0-20 mg/L; Turbidity Range: 0-100 NTU; pH Range: 0-14; Temp. Range: 0-60 deg C
- Digital electrode/sensor with strong anti-interference ability
- · Automatic alarm, calibration
- Automatic temperature compensation function
- Historical data storage. (upto1 million data)
- Supports SD card,
- · Supports Analog / Digital outputs,
- Supports Bluetooth / Micro printer







Water Resources

Total Organic Carbon (TOC Analyzer)

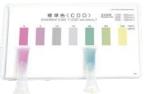
TOC Monitoring of Source Water

- Rivers, lakes, groundwater, rainwater and seawater are Source water. It is not pure as it gets mixed with
 point source pollutants (e.g., industrial discharges, agricultural runoffs) and non-point source pollutants (e.g.,
 decay of naturally occurring organic matter). River/Lake bank erosion due to human activities & weather,
 also change quality of source water.
- TOC standards & monitoring are essential to control pollution from man-made sources, thereby protect source water resources.
- · Many countries have defined TOC limits for source water, typically ranging from 4 to 5 ppm.
- TOC can serve as a key tool to assess and manage water quality in a Water Quality Tagging System. This mapping/tagging of critically polluted river stretches and lakes is helpful in obtaining valuable info to control waste water discharges, thus thereby protect aquatic life.



Water Quality Test Kits







- Prefilled reagents. Add sample. Do colorimetric comparison.
- Results in 30s. Easy & highly accurate.
- Anyone can use it anywhere.
- · Free from toxic or hazardous substances.
- 70+ test parameters viz., COD, Phosphate, Ammonium, Nitrate, Nitrite etc.
- Capture color samples with a smartphone app and digitize the assessment results.

Aquaculture Water Analyzer

- Simple to operate: Inject Sample, Insert Disk, Press "Run"
- Auto: Mixing, Timing, Measuring
- 10 Tests in 60 Seconds
- · Accurate Wet Chemistry Methods
- Water Link Spin Touch FX:
 - Fresh Water: Alkalinity,
 Ammonia, Hardness, Nitrate,
 Nitrite, pH, Phosphate
 - Salt Water: Alkalinity, Ammonia, Calcium, Magnesium, Nitrate, Nitrite, pH, Phosphate

Fresh Water / Salt Water Test Kits

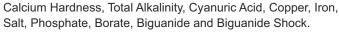
- Fresh Water: NH3-N, NO2-N, pH, Total Alkalinity, CO2, Chloride, DO, Total Hardness.
- · A complete outfit for pond fish culture.
- Salt Water: NH3-N, NO3-N, NO2-N, pH, Total Alkalinity, CO2, DO, Salinity.
- Monitor nine parameters most critical for the salt water aquaculturist.
- Unit is supplied complete with labware, accessories, sampling bottle, reagents for 50 tests of 9 important test factors.





Pool & Spa Water Analyzer

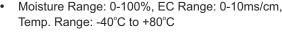
- Simple to operate: Inject Sample, Insert Disk, Press "Run"
- · Auto: Mixing, Timing, Measuring
- 10 Tests in 60 Seconds
- · Accurate Wet Chemistry Methods
 - Water Link Spin Touch: Free Chlorine (DPD), Total Chlorine (DPD), Bromine (DPD), pH,



Basic Pool and Spa Test Kit

- Measures: Free Chlorine, Total Chlorine, Bromine and pH.
- Waterproof photometer.
- · Bluetooth Connectivity.
- Convenient carrying case for on-site testing.
- Optional test factors: Total Alkalinity,
 Calcium Hardness, Cvanuric Acid, Ir
- Calcium Hardness, Cyanuric Acid, Iron, Copper and Biguanide Photometer uses instrument grade tablets packaged in blister-
- Protometer uses instrument grade tablets packaged in blister style foil.





- Special design for penetration into soil.
- Fast response. Stable sensing ability.
- Low power consumption, reliable function Portable design and easy testing
- IP68 fully waterproof.
- Resistant to long-term electrolysis, corrosion resistance, vacuum potting. Can be buried for long time.
- Less affected by soil salt content. Suitable for all soils.

Soil Testing Outfit

- Measure: pH, NO3-N, P, K, Humus (Organics), Ca, Mg, NH3-N, Mn, Al, NO2-N, Sulfate, Chloride, Ferric Iron
- Furnished in lightweight carrying cases with components securely mounted in removable foam trays.
- Provides flexibility to make quick problem determinations in the field.
- Colorimetric test methods are used for most test factors. Ca, K, Sulfate, Chloride based on Turbidity measurements.







River Water Quality Monitoring System

- Measurement directly in the water body or with flow-through armature
- Measurable Parameters: Color, TOC/COD/BOD, NO3, NO2, TSS
- Reagent-free measurement
- Reliable and high accuracy by turbidity compensation
- Continuous, Digital, Compliant
- Multi-functional slide and shock-absorption-rings
- Robust materials such as Titanium and Peek
- Integrated ultrasonic cleaning minimal maintenance
- Spectral Range: 200-720nm for UV-VIS Sensors; 200-390nm for UV Sensors





Multi Parameter Water Quality Monitoring Probe

- Standard parameters: pH, ORP, Cond., TDS, SSG, Resistivity, Salinity, DO, Depth & Temp.
- Aux port 1-4: Any ISE or optical sensor.
- Cable lengths: 3/10/20/30m (permanent use)
- 100m cable can be used for 12h submersion.
- Hard anodised Marine grade aluminium.
- Software to download recorded data, analysis, reporting and google map creation.
- IP68 Protection. Suits fresh and salt waters.

CTD (Conductivity, Temperature & Depth) Logger

- Highly accurate water level, temp., cond., and salinity measurements in groundwaters and surface waters.
- Piezoresistive ceramic pressure sensor.
- Excellent durability and long-term stability.
- Cond. range: 0-2,00,000us/cm; Salinity range: 0-70PSU.
- Titanium body. Best material in harsh or saline waters.
- Lithium battery with capacity for 5,00,000 data points.
- Software for basic and advanced data compensation.
- With the PC kit, See logger location in Google Earth.

Digital Water Level Recorders (DWLRs)

Measures ground/surface water level continuously. Widely used in Mines, Industries, Institutes, city flood control and city water supply & drainage etc. We are the leading supplier in India (Model SLL99 under MII) with 14,000+ No.s Installations (NHP, ABHY projects etc.).

- Fully sealed, submersible level transmitter with high accuracy.
- Highly reliable & stable pressure sensor
- Titanium / other Construction. Good automatic control
- The water-proof cable connects with sealed housing.
- Compact size, light weight and easy installation and operation.

Datalogger (with Telemetry) Features:

- Capture data in digital (RS485 MODBUS, RS 232) format.
- Data logger with inbuilt Telemetry Module for seamless data transfer
- Remote data acquisition through GPRS or GSM protocol.
- Data sent to a centralized data collection website.



Datalogger



Water Level Indicator

- Level range: 30/50/100/150/200/250/300m
- Quick response circuit design, high detection speed, high sensitivity.
- Suits to various environmental & regional water
- Low power consumption. Battery-powered, Battery life 2 years.
- Cable has a ruler scale to measure the water level directly.
- Electrode oxidation rust prevention for long-term sensitivity.

- For continuous level measurement of liquids.
- Universally implementable radar sensor
- Suitable for level measurement in storage containers, reactors and process vessels, even under difficult process conditions.
- Exact measuring results independent of pressure, temperature, gas and steam
- Maintenance-free operation through non-contact measuring principle



Flow Meter

- For forward/reverse volume flux measurement.
- Good linearity, Good Sensitivity, High accuracy,
- Low power consumption
- Good Low flow
- Dot matrix LCD display
- Suitable for measurement of liquid-solid twophase fluids such as sewage, slurry, pulp, coal slurry, pulp etc.
- Corrosion/abrasion resistant Lining and electrodes (optional)
- EEPROM prevents loss of the stored data in case of sudden power outages.

Weather Station

- Measurable Parameters: Wind speed, Wind Direction, Temperature, Relative Humidity, Rainfall, Pressure, Solar Radiation.
- Parameter combination as per requirement.
- Easy to use, integrate and install.
- No moving parts achieve maintenance-free
- Integrated heater to avoid freezing.
- Works with Solar panels also.
- USB output & Analog output options are available.
- Built-in data pre-processing. Configuration tool for PC.





Total Organic Carbon (TOC) Analyzer

TOC Monitoring of Waste Water:

- TOC is the key parameter to monitor organic load in Sewage and Effluent Treatment Plants (STPs & ETPs).
- Online TOC monitoring offers significant opportunities to optimize plant performance.
- It offers shorter measurement cycles without hazardous chemicals, making it a safer and more efficient
- Empowers Operators: While making critical process decisions in real-time viz., managing variable organic loads, equalization of tank capacity, balancing C:N:P ratio etc.
- Process Control: TOC monitoring before biological treatment helps to maintain optimal Food-to-Microorganism (F:M) Ratio.
- Asset Protection: TOC monitoring helps in early detection of high organic loading, reduce membrane fouling and protect assets.
- ZLD Support: Knowing TOC level of final treated water in a Zero Liquid Discharge (ZLD) plant helps to decide the suitable application.

COD System

- Quick, easy and accurate
- Hg-free reagents also available
- Automatic Data Storage
- IP68 waterproof case
- Digestor with 24 round cells
- Easy & fast 8 stored programs
- 8 user-defined programs from room temperature/25-170°C with high temperature digestion

Water Quality Test Kits

- Prefilled reagents. Add sample. Do colorimetric comparison.
- Results in 30s. Easy & highly accurate.
- Free from toxic or hazardous substances.
- 70+ test parameters viz., COD, Total Hardness, Ni, Cr, Zn, CN, Mn, H₂O₂, Phenol, Cu, pH, Residual CI, Fats & Oils etc.
- Smartphone app to digitize assessment results



BOD System

- Maximum versatility for aerobic BOD determination
- Ease-of-use, Modular system
- Robust and long-term stable measuring principle – pressure measurement
- Easy switch to Echem parameters.
- Memory for 360 measuring points.
- Backlit graphic LCD and control LED
- Bluetooth data transfer to PC.



BOD by DO Method

- Self-stirring dissolved oxygen sensor StirrOx® G for the measurement of the biochemical oxygen demand (BOD) according to the dilution method
- Permanent flow for accurate measured values with built-in stirrer
- Accurate results due to minimal use of oxygen
- Perfectly adapted to BOD measurement in Karlsruhe and Winkler bottles

Online TOC / BOD / COD / TN Analyzer

- Rapid method for determination of organic load and thus early warning and pollution control management.
- High performance on-line Total Organic Carbon (TOC) analyzer using the established 680°C Catalytic Combustion and Non-Dispersive Infrared (NDIR) Detection method based on USEPA / ASTM methods.
- Measurement ranges from 0-20,000 mgC/L full-scale
- Reliable sample injection system. Superior sampling units. On-Line calibration, MCERTS certification.
- TOC can be easily Correlated with BOD/COD
- Total Nitrogen (TN) measurement by 720°C Thermal decomposition / Chemiluminescence detection : as per EN 12260 & ASTM D - 8083

Applications:

- Practical alternative to COD/BOD for plant control, process management and monitoring of influent and effluent water in wastewater treatment plant
- Management of various plant waters. (i.e.: Washing, Rinsing, Cooling, Circulating, Boiler, Condensate, and other plant liquids)
- Monitoring of Surface Water (Rivers, Lakes and Streams)
- Water Quality Monitoring for regulatory reporting
- TOC/COD control for pharma effluent feeding to MEE (Multiple Effect Evaporators)
- High sensitivity measurement option for pure and process waters.



Online pH, TSS / MLSS, Conductivity Analysers







- Continuously measure pH, TSS / MLSS, Conductivity parameters
- Microprocessor based digital program controller.
- Automatic Cleaning Control (Air jet, Water jet) Function
- Isolated DC (4-20/0-20/0-24mA) output transmission
- Built-in backlight graphical LCD
- Temperature compensation.
- Manual/Auto calibration
- Real Time Trend Analyzer Function
- CE Mark Accredited



Effluent Quality Monitoring System (EQMS)

Effluent Quality Monitoring System (EQMS) is integrated with multi channel analysers which accepts sensors like pH, TSS, DO, Temperature, Oil in water, Conductivity, Flow etc., & analyzers like TOC, TP etc. with all options connected to data logging system and PC/client server.

Turnkey Solutions:

- SWAN offers turnkey solutions for EQMS that span from design and detailed engineering, system integration, supply to installations, commissioning and uploading of data to PCB and company corporate servers.
- Offers associated products viz., prefabricated shelter, UPS, PC, Display Boards, Wi-Fi units, Gateways, A/D converters etc.
- Provides most economical and sustaining customized solutions as per your requirement.
- Dedicated trained and experienced service team for after sales support across India.

Features:

- EQMS setup as per site requirement. All analyzers housed in a shelter.
- Sample line to draw the samples from remote areas to the shelter (optional).
- COD/BOD Monitoring using MCERTS Certified TOC Analyser (680°C Catalytic Combustion) which is in compliance with the regulatory methods specified in USEPA 415.1, ASTM 5310B, EN 1484 and CPCB.
- Uploading of data to CPCB, SPCBs, PCC and company Corporate Servers.
- Cloud server integration to access and download the logged data for futher analysis.
- Remote calibration facility for the analyzers.
- Monitor efficiency of ETP in treating waste water by comparing influent and effluent values.











Online Ion Analyzer (Hardness, Chloride, Sulfide, Ammonium, Fluoride etc.)

- Replaceable Electrode Cartridges: Application Specific Solution
- Low cost of Ownership
- Stores Identity and Calibration Information
- Insertion/Submersion with adjustable gland fittings and Valve Retractable
- Wide Variety of Materials of Construction
- Variable insertion length to accommodate installation in pipe tees, flow cells, or through tank walls
- 4-20 mA output with MODBUS RTU and Alarm Relays
- **HART Communication**





Online Colorimetric Analyser





- Process waters: Silica, Na etc.
- Based on Photometric principle
- Separate waste line for sample containing reagents
- Dual stream, Easy installation, Robust.
- Low reagent level alarm.
- Long autonomy, low maintenance & operating cost
- Color touchscreen interface. Automatic calibration / Validation / Cleaning



Optical Dissolved Oxygen Sensor

- Easy Installation, Simple Operation.
- Robust Design Hard to deteriorate with ABS construction
- Long Term Stability No Influence by water flow rate
- Standard Cable length: 10m
- Displays: DO concentration, Temp., DO Saturation Rate, Oxygen Partial Pressure
- New transmitter which provide excellent usability and operability.
- Intuitive and easy to understand operation
- Water jet proof type (IP65)





Real Time Microbial Monitoring System

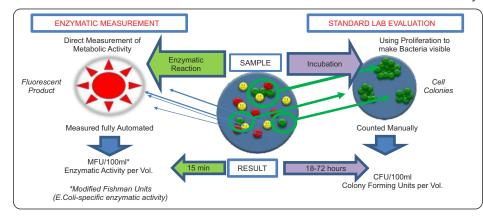
- Fluorometric measurement technology.
- Fully automated sampling, measurement, cleaning, calibration.
- 2 sample intakes.
- 15 min measurement time. 9 min cleaning cycle.
- Up to 54 measurements/day.
- Real time data.
- Online data visualization
- Automatic notification.





Stationary Model

Transportable Model





Total Coliform & E.coli Analysis Kit



+ TC - TC Blue Color

(X-Gal/MUG)



(ONPG/MUG)



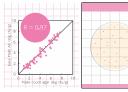
Easy to use and measure

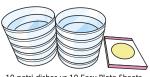
- Total coliforms / E.coli analyzed in 24 hours
- 20-50% cost savings compared to existing methods
- Easy to identify the presence/absence for TC & E.coli
- Analysis method: DST (Defined Substrate Tech.)
- Detection limit: 1 CFU in 100mL Sample
- Cultivation time: 24hr

Easy Plates

- Film media for microorganism testing.
- Sample, Incubate and Count.
- Easily distinguishable bright colored colonies.
- High correlation with plate count agar.
- Occupies only 5% space compared to traditional plates.
- Reduces waste.
- **AOAC PTM Certification**







According to the research by DNP

10 petri dishes vs.10 Easy Plate Sheets

ATP+ADP+AMP Rapid Hygiene Monitoring



- ATP bioluminescence test is useful to rapidly determine if food preparation and processing environment is clean or not.
- Provides a simple rapid test method for monitoring degree of cleanliness, hygiene and risk and acts as first step to HACCP.
- One of the quickest and most useful methods of finding and tracking the source of bacteria that can contaminate food.
- Patented technology detects not only ATP but also AMP which is derived from ATP upon processing viz., heat treatment, fermentation etc.
- The advantages of the ATP+AMP method are: quick, highly sensitive, simple to use, cheap to use improvements in product quality and shelf life.
- ATP+AMP is an excellent tool to take preventive action so that you mitigate risk at a very early stage.



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