

# BSD-C200

## Automatic Chemisorption Analyzer



- ◆ Automatic Chemisorption Analyzer with Double Furnace
- ◆ Auto-cycle Lifetime Evaluation of Catalyst



### Main Function

- ◆ TPD;
- ◆ TPR;
- ◆ TPO;
- ◆ TPSR;
- ◆ TPS
- ◆ Pulse Titration
- ◆ Auto-cycle Lifetime Evaluation

### Desorption Kinetics

- ◆ Desorption Activation Energy (Ed)
- ◆ Preexponential Factor A of Desorption (Ad)
- ◆ Desorption Order (n)

### Technical Parameter

- ◆ Heating Furnace: Double auto-switch heating furnace with air cooling system
- ◆ Temperature Range: from room temp to 1200°C
- ◆ Heating Speed Rate Range: from 1°C /min to 100°C /min
- ◆ Analytic Gas Inlets: 12 inlets
- ◆ MFC:3 MFC inlets, support 3-gas mixed test;
- ◆ Adsorbate Gas: All kinds of gas and vapor
- ◆ Vacuum Pump: Removal residual gas in free space, accuracy improved;
- ◆ Vapor Generation System: Generate vapor to test;
- ◆ Cold Trap: Eliminate negative impact from low boiling point vapor for concentration detect;
- ◆ Pulse Titration: Support pressure from Atmospheric to 1MPa/3MPa/10MPa Optional;
- ◆ Test Pressure Range: From Atmospheric to 1MPa/3MPa/10MPa
- ◆ Combustible Gas Alarm: Double alarms to monitor different areas which improve safety;
- ◆ Sample tube: U-shape with temp reference tube
- ◆ Thermostatic System: Keep gas pipeline and TCD system thermostatic;
- ◆ Built-out Injector: Support 1ml sample injector, other volume optional;
- ◆ TCD Detection Mode: Two modes 'High smart' and 'Wide range' for strong and weak signal;
- ◆ Detection System: TCD system, MASS& Infrared Spectrometer.

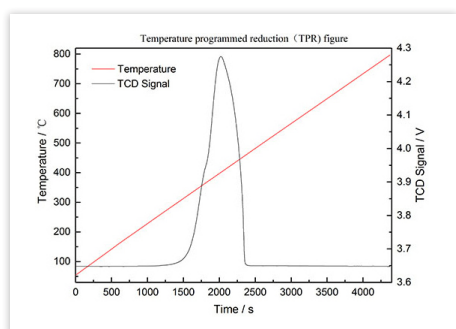
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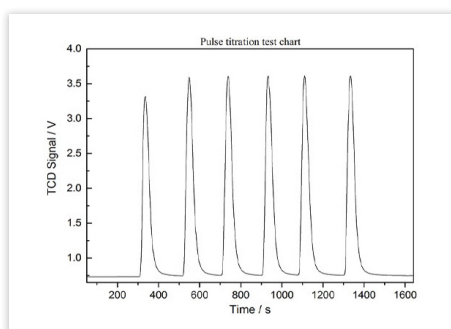
## Technical Advantage

- ◆ Automatic Chemisorption Analysis: Pretreatment with one furnace and the other prepare for test, auto-switching without manual operation;
- ◆ Temperature Reference Tube: Built-in temperature sensor in reference tube of sample, ensure accuracy of temperature;
- ◆ Auto Air-cooling System: Put air-cooling tube and temp detector in air-cooling station, auto-detecting furnace temp at cooling station to prepare for next analysis;
- ◆ Catalytic and Chemisorption Performance under complex condition Evaluation: multi-step continuous analysis, auto- execute analysis according to edited multi-step test plan;
- ◆ Lifetime and Chemisorption Stability Analysis: Automatic analysis with auto-loop running of pretreatment and test;
- ◆ High Configuration: Vapor generation and pulse titration included under standard configuration;
- ◆ Support Three gases Testing: Support 3 MFC for gas and support mixing 3 gases chemisorption analysis;
- ◆ High Accuracy and Reliability: Durable and high quality hardware;
- ◆ Suggested Detection System: MASS on-line Mass Spectrometer, FT-IR Infrared Spectrometer (Optional) suitable for INFICON, Nicolet iS20, Nicolet Summit (Nicolet iS5);

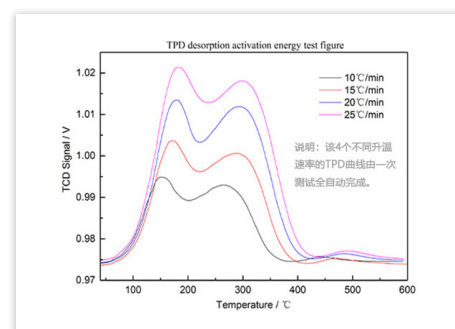
## Test Reports



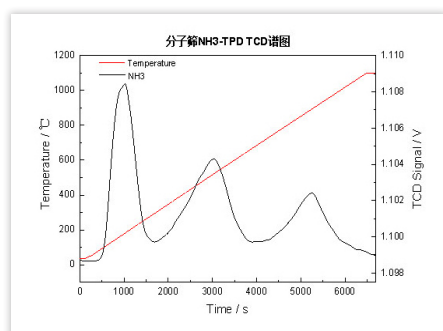
TPR Figure



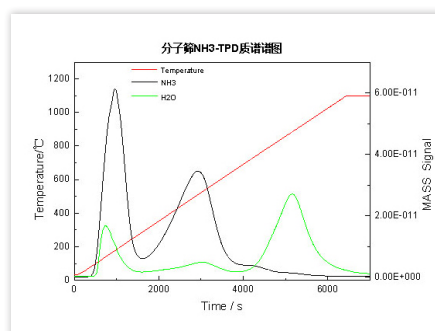
Pulse Titration Figure



TPD Desorption Activation Energy Figure



NH3-TPD TCD Figure of Molecular Sieve



NH3-TPD mass spectrometry spectrum of Molecular Sieve

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