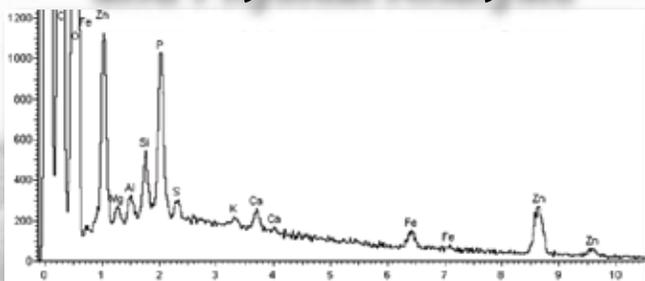


EmeraChem Catalyst Management Services

In addition to offering the finest in catalytic emissions control products, EmeraChem offers a full suite of catalyst management services. As an OEM catalyst developer and manufacturer, EmeraChem brings expertise in catalysis and nano-phase surface chemistry. Services include performance testing, chemical/physical analysis, chemical cleaning, long-term monitoring, and precious metal reclaim. Science developed in America, all products made in America.

Catalyst Chemical and Physical Analysis



Catalyst Performance Testing



Catalyst Precious Metal Reclaim



Catalyst Monitoring



Catalyst Cleaning

EmeraChem Catalyst Management Services

Catalyst Performance Testing

- EmeraChem characterizes the performance of full-size commercial catalyst elements and test buttons using a large pilot reactor.
- Temperature, flow rate, and inlet emission levels are controlled to match field operating conditions.
- CO, SO₂, NO, VOCs, and other gases are metered into the system and measured. EPA methods and protocols and a CEM system are used to measure catalyst performance over a range of operating conditions.
- EmeraChem interprets and reports the analytical results and recommends expected life and actions to take to reverse catalyst degradation and restore lost performance.

Catalyst Chemical and Physical Analysis

- Characterizing catalyst properties identifies causes for lower performance, and actions to reverse degradation and extend catalyst operating life.
- EmeraChem utilizes nano-scale microscopic and chemical methods to characterize excessive temperatures, masking of active catalytic sites, and precious metal poisoning.
- Diagnostic analyses are applied in an economical stepwise sequence based on the type of catalyst, operating service, and other factors.

Catalyst Cleaning

- Catalyst performance can oftentimes be restored using EmeraChem's proprietary 4-step chemical cleaning process. The process alkaline and acidic solutions in a recirculation system.
- A small-scale process is used for reciprocating engines (1 – 40 elements) and a large-scale process is used for combustion turbines (40 to 1000 elements).
- Cleaning can be performed at EmeraChem's manufacturing facility or at the customer's site.

Catalyst Precious Metal Reclaim

- Emission control catalysts utilize precious metals such as platinum, palladium, and rhodium. At the end of the catalyst's service life, these precious metals can be reclaimed and recovered.
- EmeraChem offers advanced chemical recovery methods to return the most value to you.

Catalyst Monitoring

- Monitoring services are available to track the condition and performance of catalyst through periodic analysis and testing.
- Utilizing the full-suite of services described above, the cost of catalyst ownership can be minimized.