AFARAK



Industrial Inorganic Chemical Laboratory



About Us



What We Can Do for You

Being the production laboratory of a world-leading manufacturer of low carbon ferrochromium – especially for the super alloy industry – we exactly know about the importance of analyzes matching special customer requirements.

Since our establishment in 1917, we gain experience related to the analytics of nonferrous metal, additives and foundry products daily. Our business is governed by a large spectrum of inorganic analytics.

Our clients expect fast and in the first instance precise answers. We are able to grant this by skilled employees, continuously growing know-how and our laboratories provided with state-of-the arts analytics. Our clients are industry, universities and engineering companies and we provide them a large range of most different services.

Starting with analytics of metallic materials and mineral substances, over the determination of elements in organic matrices, up to production- and educts inspections at metallurgy companies and their suppliers – at our premises the client is provided with a broad analytic spectrum up to trace analysis and determination of environmental parameters.

All determinations are realized in compliance with the relevant regulations and standards. We are represented at the chemist board of VDEH, in DIN standard commissions and other task groups and always happy to transfer our knowledge to our customers. Furthermore we participate in the establishment of reference materials that are used worldwide.











We Answer Your Question

Analytics of raw material, operating supply items, intermediate and final substances are the crucial basis for decisions by production managers in charge, purchase and sales staff, QA specialists and engineers. Only a fast and precise analysis assures quality on a high level and is important for further product development.

For routine analysis and further special applications we are provided with state-of-the art measuring procedures to process even the most difficult problems!



... And many other elements

Classic Wet Chemistry

Based on our know-how of many years and the high qualification standard of the employees, we also cope, further to instrumental analytics, with the classic procedures of an ironworks laboratory.

Trace Analysis with ICP-OES

The spectroscopic ICP method enables us to determine metal and nonferrous material in the most different matrices very thoroughly within the ppm range.





Finding Trace Elements

Analysis Accuracy

To determine proof limits growing smaller and smaller requires competent personnel with experience of many years and state-of-the-art analysis technology. Therefore we are in a position to safely determine the most different elements in solid and liquid substances in a reproducible way.

We regularly certify the quality of our analytical accuracy and reproducibility by several international organizations. Furthermore, we maintain an active interchange of comparative analyzes and samples with laboratories operating globally as well, to guarantee quality assurance and comparability in the interest of our customers.



X-Ray Fluorescence Analysis

X-Ray systems look back to a long tradition within metallurgy. This also applies to us. We have a multitude of standard samples available we can vary according to the problem. Due to our equipment with wave-length and energy dispersive devices, we can grant a high precision of industrial analytics such as high-alloy steels or slags.



Finding Trace Elements



Elementary Analysis/Combustion

This procedure enables us to determine even smallest traces of the nonferrous metals C, S, N, O and H in the most different substances and materials such as alloys, pure substances, preparations, hard metal or organic matrices.





Sampling/Sample-Preparation

We will be pleased to take over the sampling and/or sample preparation of the material to be analysed for you. Professional sampling is the foundation of every analysis. Representative sampling and sample preparation of the material to be tested are the first steps and the foundation of every chemical analysis. We comply with the relevant regulations and standards (DIN, DEV, ISO). During sampling, knowledge of material properties, scopes of application and processes of production of the sample are of fundamental importance.

Mr. Radermacher, head of Analytical Services, is a publicly appointed and sworn expert for sampling, sample preparation, and analysis of Ferro-alloys, ores, raw and auxiliary materials for the metal industry as well as their intermediate products and residues. He has the necessary expertise to create representative samples and analyzes to your satisfaction, even for complex tasks.







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