## Quantification of Amines

- Very sensitive
- For laboratory and industrial utilization
- Fast analysis and identification

Amine analyser utilizing ion chromatography is an essential instrument in gas refineries for monitoring and analyzing amine compounds used in gas treatment processes. Amines, such as monoethanolamine (MEA), diethanolamine (DEA) and trimethyl amine TMA (as byproduct) are commonly employed to remove acidic gases like hydrogen sulfide (H_2S) and carbon dioxide (CO_2) from natural gas. The ion chromatography system separates and quantifies these amines, ensuring the optimal performance of the gas sweetening process. Accurate monitoring of amine concentrations helps in maintaining the efficiency of the absorption and regeneration cycles, preventing corrosion, foaming, and amine degradation. This analytical approach ensures that the gas refining process operates smoothly, efficiently, and safely, minimizing downtime and reducing operational costs. The high sensitivity and specificity of ion chromatography make it a reliable method for tracking amine levels, thus safeguarding the quality of the treated gas and prolonging the lifespan of refinery equipment.
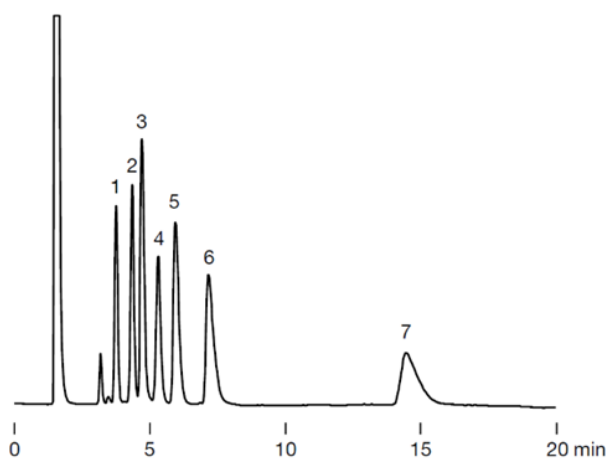
	Samples	Concentrations (µg/L)
1	Monoethanolamine	10
2	Diethanolamine	20
3	N-Methylethanolamine	20
4	Triethanolamine	30
5	N-Methyldiethanolamine	30
6	N,N-Diethylethanolamine	30
7	N-(2-Aminoethyl) ethanolamine	30

Fig.1 Amine analysis using conductivity measurements