

Reference Data for Conversion Rate of BASF's Running N₂O Decomposition Equipment

Get 5 points from the output curve of the running N₂O decomposition equipment provided by BASF to calculate and average the conversion rate.

The calculation method is as follow:

The first point:

The concentration (v/v%) of N₂O feeding into the N₂O decomposition reactor: 13.53%

The concentration (ppm) of N₂O off the N₂O decomposition reactor: 1980.52ppm

Conversion rate of N₂O (The concentration (v/v%) of N₂O feeding into the N₂O decomposition reactor—The concentration (ppm) of N₂O off the N₂O decomposition reactor)/ The concentration (v/v%) of N₂O feeding into the N₂O decomposition reactor × 100% = (13.53—0.198052) / 13.53 × 100% = 98.54%.

The calculation of the second set of values to the sixth set is the same as that of the first set. Values and the calculation results are as follows:

ID	The concentration of N ₂ O feeding into the N ₂ O decomposition reactor (v/v%)	The concentration of N ₂ O off the N ₂ O decomposition reactor (ppm)	Conversion rate of N ₂ O (%)
1	13.53	1980.52	98.54%
2	13.60	1883.12	98.62%
3	13.73	1931.82	98.59%
4	13.80	1850.65	98.66%
5	13.79	2001.03	98.55%
Avg.	13.67	1911.53	98.60%