

3440-30/5.01-31

NBI

C-20

Expte. Results

IRON Catalyst SYNTHESIS

Nos 629-750

3 Parts

Part 2

Kessick 646-700, vom 6.12.43 - 21.3.44

Kers. Nr.	Kontakt Nr.	Kontakt Zusammensetzung	Fällungs-mittel	Reduktion	Ofen	Durch
646	F-2093	100Fe, 5Ca, 10CaO, 30Kgr, 3KH	Na <sub>2</sub> CO <sub>3</sub>	325°, H <sub>2</sub> , N <sub>2</sub> , 24 Std., Kat.-Fab.		16 ad
647	F-2188	" " " 5 Kgr, 3KH	"	" " " halbz.		16 "
648	F-2188	" " " " "	"	" " " " "	MR1	"
649	F-2171	" " " 30 Kgr " "	"	" " " Kat.-Fab.	3	"
650	F-2185	" " " 5 Kgr "	Na <sub>2</sub> CO <sub>3</sub>	" " " halbz.	MR1	"
651	F-2185	" " " 20 Kgr "	"	" " " Labor	6	"
652	F-2190	" " " 5 Kgr, 5KH	"	" " " halbz.	11	"
653	F-2181	" " " 50 Kgr "	K <sub>2</sub> CO <sub>3</sub>	" " " Labor	13	"
654	F-2171	" " " 30 Kgr, 3KH	"	" " " Kat.-Fab.	15	"
655	F-2171	" " " " "	Na <sub>2</sub> CO <sub>3</sub>	360°, H <sub>2</sub> , N <sub>2</sub> , 23 Std, " "	3	"
656	F-2190 F-2193	" " " 30 Kgr, 3 KH	"	325°, H <sub>2</sub> , N <sub>2</sub> , 24 Std, " + halbz.	MR2	"
657	F-2201	" " " 50 Kgr "	K <sub>2</sub> CO <sub>3</sub>	360° " " , halbz.	MR1	"
658	F-2171	" " " 30 Kgr, 3KH	"	400° " " , Kat.-Fab.	9	"
659	F-2181	" " " 50 Kgr "	K <sub>2</sub> CO <sub>3</sub>	360° " 48 Std, Labor	6	"
660	F-2213	" " " 10 Kgr, 10KH	Na <sub>2</sub> CO <sub>3</sub>	325° " 24 Std,	2	"
661	F-2214	" " " 50 Kgr "	K <sub>2</sub> CO <sub>3</sub>	" " 1 Std, halbz.	50 Liter	"
662	F-2216	" " " " 3KH	KOH	370° " 24 Std, Labor	MR1	1 ad
663	F-2216	" " " " "	"	330° " 1.5 Std, " "	MR2	"
664	F-2217	" 10Kgr, " " 10 KH	NaOH	320° " " " halbz.	MR3	"
665	F-2218	" " " " "	"	" " 24 Std, " "	MR4	"
666	F-2222	" 5Ca, " 30 Kgr, 3KH	Na <sub>2</sub> CO <sub>3</sub>	380° " " " Kat.-Fab.	4	"
667	F-2218	" 10Ca, " 50 Kgr, 10KH	NaOH	325° " " " halbz.	MR3	"
668	F-2220	" 5Ca, " 25 Kgr, 3KH	KOH	325° " " " "	MR2	"
669	PN1	" " " 50 Kgr "	NaOH	380° " 24 Std, " "	MR4	"
670	F-2219	" " " " "	"	325° " 1 Std, Labor	MR5	"
671	PN2	" " " 30 Kgr "	"	" " " " halbz.	MR1	"
672	F-2219/11	" " " 50 Kgr "	K <sub>2</sub> CO <sub>3</sub>	380° " 24 Std, Labor	7	"
673	690/Lurgi	" " " " "	KOH	" " " " "	8	"
674	691/Lurgi	" " " " "	Na <sub>2</sub> CO <sub>3</sub>	" " " " "	3	"

Formel Nr.	Kontakt Nr.	Kontakt Zusammensetzung	Fällungs mittel	Reduktion	Gfex	Druck atm
675	PN3	100% 50% 100% 30% 30%	$N_2 CO_2$	325° $H_2 H_2$ , 100%, halbes.	NR3	10,0
676	PN4	" " " " "	$N_2 CO_2$	317-323° " " "	NR2	"
677	PN5	" " " 50% " "	" "	327° " " "	NR4	"
678	PN5	" " " 30% " "	$N_2 CO_2$	325° " " "	NR7	"
679	PN6	" " " " "	$CO_2 H_2$	" " " " "	NR8	"
680	PN7	" " " " "	$N_2 H_2$	315-317° " 1/2 H <sub>2</sub> O	NR1	"
681	F-2010	" " " 50% " "	$N_2 CO_2$	320° " " 1/2 H <sub>2</sub> O, Laber	"	"
682	PN9	" " " " "	$CO_2 H_2$	351° " " 1/2 H <sub>2</sub> O, halbes.	NR3	"
683	PN11	" " " 30% " "	$N_2 CO_2$	325° " " 1/2 H <sub>2</sub> O	NR7	"
684	PN10	" " " 50% " "	" "	354° " " 1/2 H <sub>2</sub> O	NR5	"
685	PN17	" " " " "	$N_2 CO_2$	320° " " "	NR2	"
686	PN12	" " " 30% 100%	$N_2 CO_2$	" " " " "	NR1	"
687	PN15	" " " 50% " "	$N_2 CO_2$	" " " " "	NR4	"
688	PN16	" " " " 30% $CO_2$	" "	" " " " "	NR3	"
689	F-2011	" 20% " " 30% $CO_2$	" "	" " " " "	NR4	"
690	PN17	" 50% " 15% 30% $CO_2$	" "	" " " " "	NR1	"
691	PN18/19	" " " 50% 15% $CO_2$	" "	" " " " "	NR5	"
695	F-2010	" " " 50% 30% $CO_2$	" "	350° " " " Laber	"	"
696	F-2013	" " " 30% " "	" "	317-320° " " " Lab. Lab.	NR7	"
697	F-2013	" " " " "	" "	325° " " " "	NR9	"
698	F-2013	" " " " "	" "	" " " " "	NR2	"

100 Fe 5 Cu 10 CaO 30 Kgr. 3% KOH impr.

Nass: Soda-fällung.  
Imprägniert mit 3% KOH.

Feucht: Nach Kartrocknung Kartformung in der Fadenpresse.

Trocken: Im Trockenschrank Kartwerkstatt bei Ca 140°.

Produkt: Dauer: 24 Std.  
 Nr. 17 Gas: H<sub>2</sub> N<sub>2</sub>  
 Temp.: 325°  
 Durchsatz: 55 cm<sup>3</sup> / 300 L Std.  
 Druck: normal

	unred.	red.	
g Kat. / Liter		790	Korngröße ..... 2.0 mm
g Fe / Liter			Fe in 2% Ess. ll. .... 74.0 %
Porenvolumen %		74.5%	Fe-Met. aus H <sub>2</sub> Entk. .... %
Bau. Wärme		2.2°	Kohlensstoff ..... %
Menge Katorim Ofen: 5000 cm <sup>3</sup> = 3920 g im Brauch-Ofen			

Korninh. abgestellt, da Umsatz zu niedrig!

Dr. Linder

ata	ata -sta-1	°C
16		200,4
17		203,4
18		206,2
19		208,8
20		211,4
22		216,2
24		220,8
26		225



100 Fe 5 Cu 10 CaO 5 Kgr. 3% KOH impr.

Mass                      Sodafällung 7 kg Fe  
3x aufgeschlämmt.

Feucht:                      Imprägniert mit 3% KOH in der Federnpresse.

Trocken:

Produkt: Dauer: 24 Std.

Nr. 21a Gas: H<sub>2</sub> / N<sub>2</sub>

Temp.: 325°

Durchsatz: -

Druck: normal

	unred.	red.	
g Kat. / Liter			Korngröße ..... mm
g Fe / Liter			Fe in 2% Essigl. .... %
Porenvolumen %		74.4 %	Fe-Met. aus H <sub>2</sub> Entl. .... %
Ben.-Körnung		1.8°	Kohlenstoff ..... %
Menge Katalim Ofen: 5000 cm <sup>3</sup> ~ 5010 g Kontakt    Ein-Rohr-Ofen			

Zs. Lenz

früher abgestellt wegen in geringen Umfassen, hervor-  
geringer durch die ein starkes Dampf-Eithöhlung!





100 Fe 5 Cu 10 CaO 5 Mg. 3% KOH impr.

Nass Sodafällung 7 kg Fe  
3x aufgeschlämmt.

Feucht: Imprägniert 3% KOH in der Fadzengasse.

Trocken: Trockenschrank Katorwärkstatt ca 140°.

Produkt. Dauer: 24 Std.

Nr. R 13 Gas: H<sub>2</sub>N<sub>2</sub>  
a+b

Temp.: 385°

Pureität: \_\_\_\_\_

Druck: normal

	unred.	red.	
g Kat. / Liter		—	Korngröße ..... 1-3 mm
g Fe / Liter			Fe in 2% Extrakt. .... 83,4 %
Porenvolumen %		69,7 %	Fe-Mkt. aus H <sub>2</sub> Entk. .... %
Bea.-Wärme		1,3°	Kohlenstoff ..... %

Menge Kator im Ofen: 5000 cm<sup>3</sup> = 4390 g Kontakt

Aus 20.12. Feinsieb abgebrochen, Aufahrt bei  
 im hohen Temp.!

Datum	18.12.43	19.12.43	20.12.43			
Betr. Std.	8	30	57			
Temp °C	168°	201°	206°			
Druck atü	10.0	10.0	10.0			
Durchsatz nL / Std. u.L. Kator	457 / 9.3	405 / 8.1	440 / 8.8			
Krszf. 11X	-	-	-			
Kontr % <sup>gcm</sup> ber.	32.7	30.8	26.4			
Vol % CO <sub>2</sub>	6.6	10.2	7.0	24.8	2.0	23.8
" " C <sub>2</sub> H <sub>4</sub>	0.0	0.3	0.1	0.4	0.0	0.9
" " O <sub>2</sub>	0.2	0.1	0.2	0.0	0.2	0.1
" " CO	38.4	24.3	37.9	18.9	37.8	13.7
" " H <sub>2</sub>	48.2	38.8	48.0	46.3	44.3	46.3
" " CH <sub>4</sub>	0.2	9.1	0.3	1.1	0.1	1.9
CZ.	-	1.00	-	1.00	-	1.00
Vol % N <sub>2</sub>	6.4	9.2	6.5	8.5	6.6	9.3
N <sub>2</sub> -Feinberfg. %	18.1	26.9	19.7	24.1	19.1	26.9
CO + H <sub>2</sub> Umsatz, % U	51.1	39.8	48.8			
CO als CH <sub>4</sub> , % M	26.7	2.6	4.7			
1 CO x H <sub>2</sub> , % X	1.00	0.49	0.52			
Ausbeute g/cbm ber.	66.3	60.0	81.5			
R. Prod. % g/cbm						
Gasol g/cbm						
- 200°						
200 - 290°						
290 - 320°						
320 - 460°						
> 460°						
Par. > 290°						
Siedelage						
SPZ Vol %						
- 200°						
200 - 290°						
290 - 320°						
ölschne 10-haltige						
- 200°						
Ben. %						
200 - 320°						

Mr. 751 Labor-Harbit - Kat. Fabrik Kat. Nr.: F21712/RL4 Vers. Nr. 649

100 Fe 5 Cu 10 CaO 30 Agr. 3% KOH impr.

Nass :

Feucht : Imprägniert mit 3% KOH.

Für die Kexformung in der Fadenpresse vorgetrocknet.

Trocken:

Produkt. Dauer : 24 Std.

Mr. R24 Gas : H<sub>2</sub> N<sub>2</sub>

Temp. : 325°

Purettalk. :           

Druck. : normal

	unred.	red.	
g Kat. / Liter		835	Korngröße ..... 2 ..... mm
g Fe / Liter			Fe in 2% Essigl. .... 80,5 %
Porosvolumen %		68,4%	Fe-Met. aus H <sub>2</sub> Entk. .... 9%
Benz.-Wärme		31°	Kohlenstoff ..... - %

Menge Katalim Ofen:  $1280 \text{ cm}^3 = 993 \text{ g}$  Kontakt in 16 Röhren

Nickelgehalt niedrig, Mangan im geringen

H<sub>2</sub> Rest Menge vorläufig als CO/H<sub>2</sub> (vergl. 729).

Datum	21.12.43	22.12.43	23.12.43	24.12.43	26.12.43	27.12.43	28.12.43	29.12.43	30.12.43									
Betr. Std.	18	46	66	90	138	162	185	209	233									
Temp °C	200°	205°	210°	215°	218°	218°	218°	220°	220°									
Druck atü	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0									
Durchsatz ml/Std. u. L. Kator	151/109	137/109	151/118	121/99	154/120	141/100	147/110	163/96	157/100									
Kristf. 1x	-	-	-	-	-	-	-	-	-									
Kont. % <sup>gsm.</sup> ber.	14.7	17.5	35.9	23.3	34.7	30.0	37.4	18.2	11.4									
-Vol % CO <sub>2</sub>	6.5	15.5	6.7	25.2	6.4	26.2	6.0	23.8	6.8	24.9	6.6	13.9	6.8	22.2	7.2	24.2	6.6	23.3
" " C <sub>2</sub> H <sub>4</sub>	0.0	0.9	0.0	0.6	0.0	0.6	0.1	0.9	0.0	0.5	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.1
" " O <sub>2</sub>	0.0	0.2	0.2	0.1	0.0	0.2	0.1	0.0	0.0	0.2	0.1	0.0	0.2	0.3	0.0	0.0	0.0	0.1
" " CO	38.5	18.6	38.5	20.1	38.6	18.0	38.8	20.7	38.8	20.6	38.3	21.0	37.6	22.0	37.6	21.8	38.3	31.1
" " H <sub>2</sub>	42.2	45.1	48.3	44.2	49.8	45.3	48.5	45.1	46.6	44.2	49.0	45.8	49.1	46.2	48.2	44.6	49.1	45.8
" " CH <sub>4</sub>	0.2	1.5	0.2	1.0	0.2	1.2	0.2	1.1	0.1	1.1	0.1	0.8	0.1	1.1	0.2	1.6	0.2	1.4
CZ.	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00
Vol% N <sub>2</sub>	6.0	8.2	6.1	8.8	5.4	8.5	6.3	8.4	5.7	8.5	5.9	8.4	5.9	8.1	6.2	7.5	5.8	7.9
N <sub>2</sub> -Feinbest. %	17.5	23.9	17.8	25.6	16.9	25.0	18.4	24.0	16.2	24.9	16.7	24.1	16.8	23.8	18.0	22.0	16.7	22.7
CO <sub>2</sub> -H <sub>2</sub> Umratz. % U	46.5	48.6	54.2	42.1	51.8	46.1	44.7	38.0	43.5									
CO als CH <sub>4</sub> % M <sub>CO</sub>	3.6	2.0	2.2	6.6	6.4	2.1	3.2	5.6	3.5									
1CO x H <sub>2</sub> X	0.64	0.72	0.77	0.61	0.78	0.72	0.76	0.67	0.68									
Ausbeute g/ubm ber	73.7	83.2	100.0	63.3	76.4	81.5	78.2	37.5	70.7									
ft. Prod. g/g/cm						51.4		68.0										
Gasol g/ubm						2.1		3.2										

Siedebz.:	- 200°
	200 - 290°
	290 - 320°
	320 - 460°
	> 460°
Par. > 290°	
SPZ Vol. %	- 200°
	200 - 290°
	290 - 320°
alkaline 10-haltig	- 200°
Gew. %	200 - 320°

Produkt abget. d. B. H. K. gemessen

Strommessung abget. d. H. K. 1

205°    210°    215°    218°

220°



# Gasol ausbeute.

Versuch Nr. 649...

<b>Datum:</b>	vom bis	24.12. 27.12. <sup>43</sup>	27.12. 30.12. <sup>43</sup>	30.12.43 3.1.44
<b>Zeit:</b>	vom bis	9 <sup>00</sup> 9 <sup>20</sup>	9 <sup>00</sup> 9 <sup>40</sup>	9 <sup>00</sup> 9 <sup>40</sup>
<b>Eingangsgas</b>		10.-Gas	10.-Gas	10.-Gas
	Nm <sup>3</sup>	10,76	9,24	13,60
<b>Restgas</b>	N/2	101,0	32,0	106,0
<b>Gasol</b>	l			
mit %	CO <sub>2</sub>	41,7	36,9	33,9
	C <sub>3</sub> H <sub>6</sub>	29,5	32,5	35,1
	C <sub>2</sub> H <sub>4</sub>	1,8	2,1	3,1
	O <sub>2</sub>	0,8	0,4	0,8
	CO	5,2	4,2	3,5
	H <sub>2</sub>	3,0	2,1	2,7
	CH <sub>4</sub>	11,9	13,8	10,8
	N <sub>2</sub>	6,1	8,0	10,1
	C-Z.	3,30	2,83	3,86
	entsprechen g/l	0,857	0,912	0,992
<b>Ausbeute:</b>	g Gasol	26,5	29,1	105,0
	g / Nm <sup>3</sup> Eingangsgas	2,1	3,2	4,7

**Bemerkungen:**

100 Fe 5 Cu 10 CaO 5 Agr. 3% KOH impr.

Nass Sodafällung 7 kg Fe  
3x aufgeschlämmt.

Feucht Imprägniert mit 3% KOH in der Fädenpresse.

Trocken: Tropfenschränk Katorwerkstatt bei ca 140°.

Redukt. Dauer: 24 Std.

Mr.: Gas: H<sub>2</sub>/N<sub>2</sub>

Temp.: 225°

Purchsatz: \_\_\_\_\_

Druck: normal

	unred.	red.	
g Kat. / Liter		7.80	Korngröße ..... mm
g Fe / Liter			Fe in 2% Essigl. .... %
Porenvolumen %		71.8	Fe-Met. aus H <sub>2</sub> Entk. .... %
Bezcz.-Wärme		2.2°	Kohlenstoff ..... %
Menge Kator im Ofen: 5100 cm <sup>3</sup> = 4470 g Kontakt			

Kontakt wegen starker Methan- u. Kohlenstoffbildung  
 (vorwiegend Gasdurchgang) abgesetzt.

Datum	27.12.43	27.12.43	28.12.43	28.12.43
Betr. Std.	150	154	175	179
Temp. °C	206°	206°	205°	206°
Druck atü	10.0	10.0	10.0	10.0
Durchsatz ml/Std. L Kator	427/10	427/10	427/10	427/10
Kritf. 11X	-	-	-	-
Kontf. % <sup>gem.</sup> ber				
Vol % CO <sub>2</sub>	6.6	37.7	6.6	37.5
" " C <sub>1</sub> H <sub>4</sub>	0.0	2.5	0.0	1.1
" " O <sub>2</sub>	0.1	0.2	0.1	0.2
" " CO	33.0	5.0	33.0	5.7
" " H <sub>2</sub>	49.0	42.0	49.0	49.7
" " CH <sub>4</sub>	0.1	3.7	0.1	3.7
CZ.	-	100	-	100
Vol % N <sub>2</sub>	5.9	9.3	5.9	8.9
N <sub>2</sub> Feinbestf. %	16.9	27.1	16.9	26.5
CO + H <sub>2</sub> Umsatz % U	66.5	64.4	74.7	77.9
CO atü CH <sub>4</sub> % M	6.0	6.1	23.3	35.2
1 CO x H <sub>2</sub> X	0.65	0.62	0.85	0.80
Ausbeute g/cbm ber	104.2	95.6	43.1	35.0
R. Prod. 99 g/cbm				
Gasol g/cbm				
- 200°		69.0		
200-290°		80.9		
290-320°				
>320-460°		2.6		
>460°				
Par. >290°				
SPZ Vol %				
- 200°		85.0		
200-290°		22.0		
290-320°				
definierte 10-nährige Ber. %		20	61.2	
200-320°		68.5	72.3	

200-290° 290-320° 460-600° 600-800° 800-1000°





Datum	21.12.43	21.12.	21.12.	21.12.	21.12.	21.12.	21.12.	21.12.	22.12.	22.12.
Betr. Std.	8	9	10	11	12	13	17	21	25	
Temp °C	141.0	151.0	156.0	162.0	169.0	176.0	182.0	184.0	186.0	
Druck atü	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
Durchsatz AL/Std. u. L. Kator	364/44	687/55	873/55	336/64	359/41	341/45	373/73	375/74	360/71	
Kristf. 1+x	-	-	-	-	-	-	-	-	-	-
Kontr. % <sup>gem.</sup> ber.		77.5	10.2	20.2	25.5	25.0	24.5	23.5	21.8	
Vol % CO <sub>2</sub>	6.0 0.2	6.0 7.8	6.0 12.5	6.0 14.4	6.0 18.2	6.0 22.4	6.5 21.9	6.5 22.0	6.7 21.0	
" " CnHm	0.0 0.1	0.0 0.2	0.0 0.0	0.0 0.2	0.0 0.1	0.0 0.2	0.0 0.3	0.0 0.3	0.0 0.6	
" " O <sub>2</sub>	0.0 0.1	0.0 0.0	0.0 0.2	0.0 1.0	0.0 0.2	0.0 0.2	0.0 0.2	0.0 0.1	0.2 0.0	
" " CO	34.5 29.5	38.5 27.0	38.5 24.9	38.5 23.7	38.5 27.4	38.5 16.7	38.5 21.4	38.5 21.3	38.5 22.5	
" " H <sub>2</sub>	48.8 57.6	48.8 57.0	48.8 55.5	48.8 53.7	48.8 51.8	48.8 51.7	48.8 47.7	48.8 42.5	48.8 42.3	
" " CH <sub>4</sub>	0.2 0.1	0.2 0.5	0.2 0.1	0.2 0.4	0.2 0.3	0.2 0.2	0.2 0.5	0.2 0.9	0.2 0.9	
CZ.	-	-	1.00	-	1.00	-	1.00	-	1.00	-
Vol % N <sub>2</sub>	6.0 6.4	6.0 7.5	6.0 6.9	6.0 7.6	6.0 8.0	6.0 8.0	6.0 8.0	6.0 7.9	6.1 7.7	
N <sub>2</sub> Feinbestg. %	17.5 18.6	17.5 21.2	17.5 19.5	17.5 22.1	17.5 23.5	17.5 22.3	17.5 23.2	17.5 22.9	17.8 22.8	
CO + H <sub>2</sub> Umsatz. % U	-	20.6	-	29.7	32.6	41.5	40.0	39.7	37.0	
CO als CH <sub>4</sub> % M	-	1.2	-	0.5	-	1.5	0.9	2.3	2.4	
1 CO x H <sub>2</sub> X	-	0.11	-	0.32	0.45	0.39	0.57	0.56	0.54	
Rückbeute g/cbm ber	-	-	-	88.9	93.8	92.6	75.0	71.4	62.0	

ft. Prod. 19 g/cbm

Gasol g/cbm

- 200°

200-290°

290-320°

320-460°

> 460°

Par > 290°

Siedelage.

SPZ Vol. %

- 200°

200-290°

290-320°

als fine 10-hellige  
- 200°

Ben. %

200-320°

100 Fe 5 Cu 10 CaO 20 Mg 3% KOH impr.

Mass Sodafällung  
3x aufgeschlämmt.

Feucht: Imprägniert mit 3% KOH.

Trocken:

Produkt. Dauer: 24 Std.  
 Nr. R. ~~27~~ Gas: H<sub>2</sub>Ne  
 Temp.: 325°  
 Durchsatz: \_\_\_\_\_  
 Druck: normal

	unred.	red.	
g Kat. / Liter		580	Korngröße ..... 1-3 mm
g Fe / Liter			Fe in 2% Extr. .... 90.8% %
Porenvolumen %		71.1%	Fe-Met. aus H <sub>2</sub> Extr. .... %
Berl. Härte		1.4°	Kohlenstoff ..... %

Menge Katalim Ofen:  $4 \cdot 260 \text{ cm}^3 = 1040 \text{ cm}^3 = 1.04 \text{ dm}^3$  Kontakt im 41. Rohren

Nr 752 Kator Nr: F2185/R36 Ofeninhalt: 4.7 Liter Ofen Nr: 6 Versuch Nr: 657 1

Datum	22.12.43	23.12.43	24.12.43	26.12.43	27.12.43	28.12.43	29.12.43	29.12.43	30.12.43									
Betr. Std.	2	18	42	90	90	115	139	145	703									
Temp °C	200°	200°	205°	210°	210°	210°	210°	210°	210°									
Druck atü	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0									
Durchsatz mL / Std. u. L. Kator	522/11.48	422/10.2	537/11.3	596/12.7	522/12.7	607/14.1	559/11.8	578/12.5	657/13.5									
Kristf. 1x	-	-	-	-	-	-	-	-	-									
Kontr. % <sup>gem.</sup> ber.	15.1	11.6	24.6			37.3	25.4	15.5	55.0									
Vol. % CO <sub>2</sub>	6.7	22.5	6.4	13.5	6.0	17.8	6.6	26.1	6.6	27.2	6.8	30.0	7.2	29.1	7.2	29.6	6.6	31.2
" " C <sub>1</sub> H <sub>4</sub>	0.0	0.4	0.0	0.1	0.1	0.5	0.0	1.5	0.0	1.1	0.0	1.3	0.0	1.1	0.0	1.4	0.0	1.7
" " O <sub>2</sub>	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.0	0.1	0.0	0.2	0.0	0.1
" " CO	38.5	18.5	38.6	31.2	38.8	27.1	38.3	17.9	38.3	12.7	37.6	13.1	37.6	14.5	27.6	13.4	38.3	11.7
" " H <sub>2</sub>	48.3	57.6	49.8	47.8	48.5	45.0	49.0	44.1	49.0	44.2	49.4	43.7	48.8	44.4	48.8	43.9	49.1	43.9
" " CH <sub>4</sub>	0.2	0.6	0.2	0.7	0.2	0.9	1.1	1.7	0.1	2.4	0.1	2.5	0.2	2.5	1.2	2.6	0.2	2.7
CZ.	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00
Vol. % N <sub>2</sub>	6.1	7.4	5.4	6.7	6.3	8.4	5.9	8.6	5.9	8.3	5.9	9.6	6.2	8.3	6.2	8.4	5.8	8.7
N <sub>2</sub> -Feinbestg. %	17.8	11.0	16.0	19.8	18.4	24.2	16.9	24.7	16.9	24.2	16.8	27.0	18.0	24.1	18.0	24.2	16.7	25.7
CO + H <sub>2</sub> Umsatz. % U	32.5	27.6	32.1	51.3	51.2	59.3	49.2	50.2	58.8									
CO als CH <sub>4</sub> % MeO	1.3	3.0	2.8	4.2	6.0	5.1	6.4	6.6	5.2									
1 CO x H <sub>2</sub> % X	0.24	0.84	0.78	0.73	0.68	0.70	0.59	0.59	0.67									
Ausbeute g / lbrn. ber	68.8	52.5	63.9	85.1	79.0	100.9	66.3	67.6	96.2									
R. Prod. g / lbrn						46.19			62.4									
Gasol g / lbrn						4.7												
- 230°						7.3			72.0									
200 - 290°						26.9			26.5									
290 - 320°						-			-									
320 - 460°						-			-									
> 460°						-			-									
Par. > 290°						-			-									
SPZ Vol. %						39.0			37.0									
- 200°																		
200 - 290°																		
290 - 320°																		
olefine 10-haltige - 200°																		
Ben. %																		
		205°	210°						215°									

Produkt abget. v. B. A. H. F. ...  
 Produkt abget. v. B. A. H. F. ...  
 Produkt abget. v. B. A. H. F. ...  
 Produkt abget. v. B. A. H. F. ...

№ 752		Kator. №. F. 2185 / 226		Göminhill. 4.7		Liter		Open № 6		Version of 05.7		2							
Barum		3.1.43	2.1.44	3.1.44	4.1.44	5.1.44	6.1.44	7.1.44	8.1.44	9.1.44									
Bar. Sea		187	235	259	283	307	331	355	329	403									
Temp °C		215°	215°	215°	215°	215°	215°	220°	220°	220°									
Pecok alt		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0									
Pecok alt m. sh. i. l. date		626/133	667/242	625/33	554/116	617/34	597/22	718/153	648/35	648/132									
Korrek 1-X		-	-	-	-	-	-	-	-	-									
Korrek 1-X 100% 100%			60.7	64.5	72.2	65.7	66.8	68.8	68.7	63.8									
Vol % CO <sub>2</sub>		6.6	32.5	6.4	34.2	6.7	34.2	6.4	34.1	6.5	32.3	6.2	31.6	6.4	31.9	6.4	31.2	7.0	32.7
C <sub>2</sub> H <sub>2</sub>		0.0	1.6	0.0	1.8	0.0	2.0	2.0	2.5	0.0	1.4	0.0	1.9	0.0	1.6	2.0	2.1	2.1	1.7
O <sub>2</sub>		0.2	0.2	0.0	0.2	0.2	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1
CO		37.9	11.7	38.4	9.6	37.8	9.2	38.1	11.8	39.0	11.8	38.5	13.1	38.6	3.3	38.1	14.8	37.8	13.5
H <sub>2</sub>		49.5	43.5	48.8	41.8	49.3	42.0	49.5	42.1	48.5	42.6	42.6	42.8	48.9	43.9	49.5	42.8	48.8	42.6
F		87.4	54.2	87.2	50.8	87.1	51.2	87.1	53.9	87.5	54.4	87.1	55.9	87.5	52.0	87.6	54.6	87.6	53.7
CH <sub>4</sub>		0.2	3.1	0.2	3.0	0.2	3.6	0.2	3.6	0.3	3.1	0.3	2.8	0.2	2.1	0.2	3.1	0.3	2.3
C <sub>2</sub> H <sub>4</sub>		-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00
Vol % N <sub>2</sub>		57.6	2.4	6.2	10.3	5.8	9.0	6.2	8.8	5.7	8.7	5.9	8.7	5.9	9.2	5.7	9.0	6.1	9.1
H <sub>2</sub> Feinberg 78		16.4	25.0	17.9	29.5	17.1	26.5	17.8	24.7	16.4	25.0	16.9	25.3	16.8	26.2	15.9	25.5	16.9	26.0
CO - H <sub>2</sub> Normal % U		59.3	64.6	62.1	55.3	59.3	57.1	59.8	61.1	59.0									
Coal C <sub>2</sub> H <sub>4</sub> % M <sub>2</sub>		11.1	11.3	15.5	9.9	13.1	2.8	2.4	18.7	9.3									
100% x H <sub>2</sub>		X	0.68	0.71	0.70	0.43	0.64	1.68	0.25	0.74	0.74								
Hardness g/cm sec		92.5	104.0	95.1	111.3	93.7	90.3	111.6	97.3	97.6									
H <sub>2</sub> Rec. 74 g/cm			59.6		2.3		75.0		64.5										
G <sub>2</sub> 100° H <sub>2</sub> cm			3.6				2.4												
- 200°			72.8		66.7		51.5		61.5										
200-290°			25.2		31.2		12.5		8.8										
290-320°			-		-		2.3		4.7										
320-460°			-		-		32.1		13.8										
> 460°			-		-		-		9.3										
Rec > 290°			-		-		34.4		27.8										
- 200°			47.0		64.0		48.0		29.0										
200-290°			-		-		70.0		50.0										
290-320°			-		-		75.0		52.0										
Outline o. n. 100° - 200°																			
Gas % 200-320°																			

220°

Paraffin gelblich braun

Datum	11.1.44
Rekt. Zeit	435
Temp. °C	2200
Druck auf Vaccinometer	100
Druck auf in Liter in Liter	639
Wahl 1-X	-
Temp. Rel. gem. bei	6,676
Vol. % CO <sub>2</sub>	68 36.8
CO <sub>2</sub>	0.0 0.1
O <sub>2</sub>	6.6 0.1
CO	32.1 13.2
H <sub>2</sub>	48.5 43.2
F	26.5 57.6
CH <sub>4</sub>	0.1 3.0
C <sub>2</sub>	- 1.00
Vol. % N <sub>2</sub>	64 9.2
H <sub>2</sub> Feinberg %	11.1 26.8
CO + H <sub>2</sub> Vomslag % U	54.8
CO als CH <sub>4</sub> % M <sub>2</sub>	1.0
CO: x H <sub>2</sub>	X 0.66
Feinanalyse	
g/cm bei	2.1
d. P. bei 11.1.44	
Gas %	g/cm
- 200°	
200-290°	
290-320°	
320-460°	
> 460°	
Bei > 290°	
- 200°	
200-290°	
290-320°	
Defline 0. m. bei 200	
Gas % 220-320°	

Menge abged. Form. in  
 Liter

# Gasoläusbeute.

Versuch Nr. 651.

<b>Datum:</b>	<i>von</i>	24.12.43	30.12.43	2.1.44	4.1.44
	<i>bis</i>	28.12.43	2.1.44	4.1.44	6.1.44
<b>Zeit:</b>	<i>von</i>	9 <sup>00</sup>	9 <sup>00</sup>	9 <sup>00</sup>	9 <sup>00</sup>
	<i>bis</i>	9 <sup>40</sup>	9 <sup>40</sup>	9 <sup>00</sup>	9 <sup>40</sup>
<b>Eingangsgas</b>		10.-Gas	10.-G	10.-Gas	10.-Gas
<b>Nm<sup>3</sup></b>		44,10	47,00	28,30	29,10
<b>Restgas N/l</b>		24,0	26,0	28,0	41,0
<b>Gasol l</b>					
<b>mit %</b>	<b>CO<sub>2</sub></b>	37,0	36,2	26,1	28,8
	<b>C<sub>3</sub>H<sub>8</sub></b>	24,0	18,0	36,4	39,1
	<b>C<sub>2</sub>H<sub>4</sub></b>	0,8	0,6	1,5	2,2
	<b>O<sub>2</sub></b>	1,4	1,1	0,5	0,5
	<b>CO</b>	5,3	5,3	3,5	2,8
	<b>H<sub>2</sub></b>	5,3	6,5	3,0	3,3
	<b>CH<sub>4</sub></b>	13,3	15,2	15,9	16,2
	<b>N<sub>2</sub></b>	12,9	17,1	13,1	8,1
	<b>G-Z.</b>	3,45	2,95	3,36	2,86
	<b>entsprechen g/l</b>		0,871	0,653	1,076
<b>Ausbeute:</b>	<b>g Gasol</b>	20,9	17,0	30,0	23,1
	<b>g/Nm<sup>3</sup> Eingangsgas</b>	4,7	3,6	1,1	2,4

**Bemerkungen:**

100 Fe 5 Cu 10 CaO 5 Kgr. 5% KOH impr.

Nass

Sodafällung

3x aufgeschlämmt.

Feucht

Imprägniert mit 5% KOH

Trocken:

Produkt: Dauer: 24 Std.

Mr. R 27 Gas: H<sub>2</sub>N<sub>2</sub>

Temp.: 325°

Durchsatz: \_\_\_\_\_

Druck: normal

	unred.	red.	
g Kat. / Liter		855	Korngröße..... 1-3 mm
g Fe / Liter			Fe in 2% Extrakt..... 29.5 %
Porosvolumen %		66.7°	Fe-Met., aus H <sub>2</sub> Extrakt..... %
Bezt.-Wärme		1.6°	Kohlenstoff..... %

Menge Katal im Ofen: 1600 cm<sup>3</sup> = 13.13 g Kontakt in 16 Röhren

Fließtemp. 3 auf 5% KOH ergeb. keine größere O<sub>2</sub>-Entf.





№ 752		Kator №. F 2190/R27		Geminat. 16		Leter		Ofen № 11		Versuch № 652									
Datum		2.1.44	3.1.44	4.1.44	5.1.44	6.1.44	7.1.44	8.1.44	9.1.44	10.1.44									
Zeit		232	256	280	304	328	352	376	400	424									
Temp °C		2150	2150	2150	2150	2150	2200	2200	2200	2200									
Druck atm		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0									
Druck atm in Höhe d. L. 2.1.44		155/92	156/92	163/102	148/93	144/80	133/83	173/108	153/96	150/94									
Koeff. 1. X		-	-	-	-	-	-	-	-	-									
100 Verd. g/m sic.		63.0	62.3	60.6	68.4	70.2	76.8	58.5	64.3	64.0									
Vol. % CO <sub>2</sub>		6.4	31.7	6.7	29.7	6.4	30.0	6.5	29.2	6.7	31.1	6.4	31.5	6.4	31.2	7.0	31.0	6.7	31.0
CnHm		0.6	0.9	0.0	1.5	0.0	0.5	0.0	0.4	0.0	1.2	0.0	0.0	0.0	1.3	0.0	1.6	1.0	0.2
O <sub>2</sub>		0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.2	0.0	1.1	0.0	0.3	0.1	3.2	0.0	0.1	0.0	0.1
CO		38.4	11.9	37.8	13.7	38.1	13.7	39.0	15.6	38.5	14.9	38.6	3.0	38.1	12.5	37.8	12.4	37.8	12.3
H <sub>2</sub>		48.8	43.1	49.3	43.1	49.0	44.4	48.5	43.9	48.6	44.2	48.9	44.7	49.5	43.5	48.9	43.0	49.6	44.8
F		87.2	55.0	87.1	56.8	87.1	57.1	87.5	59.5	87.1	59.1	87.5	57.7	87.6	56.6	87.2	55.4	87.4	57.1
CH <sub>4</sub>		0.2	2.5	0.2	2.4	0.2	2.1	0.3	2.4	0.3	2.3	0.2	1.8	0.6	1.8	0.2	1.8	0.2	2.6
C%		-	100	-	100	-	100	-	100	-	100	-	100	-	100	-	100	-	100
Vol. % N <sub>2</sub>		6.2	9.8	5.8	9.6	6.2	9.3	5.7	8.3	5.9	8.2	5.9	7.7	5.7	9.5	6.0	9.1	5.7	9.5
H <sub>2</sub> Sulfid %		17.9	28.4	17.1	27.5	17.2	28.9	16.4	24.0	16.9	24.1	16.8	21.9	15.9	27.2	16.9	26.3	16.9	26.4
CO-H <sub>2</sub> Brennstoff % U		60.2	59.4	59.4	53.4	52.3	49.4	62.6	59.3	59.2									
CO <sub>2</sub> CH <sub>4</sub> % M <sub>2</sub>		10.6	10.0	2.5	11.1	11.4	11.1	6.6	5.7	11.6									
100 x H <sub>2</sub> X		0.68	0.77	0.74	0.65	0.63	0.51	0.78	0.72	0.70									
Sulfid g/cm <sup>3</sup> sec		97.4	97.2	92.4	86.7	84.0	79.9	103.3	100.5	95.0									
R. Prod. H <sub>2</sub> Sulfid			61.5				57.9												
Guss H <sub>2</sub> Sulfid							8.8												
- 200°			44.5				47.6												
200-290°			7.4				16.6												
290-320°			1.8				2.6												
320-460°			21.6				17.2												
> 460°			51.6				9.0												
Bz > 290°			45.2				35.6												
- 200°			53.0				56.0												
200-290°			51.0				57.0												
290-320°			51.0				55.5												
Alkyne 0. m. d. 200																			
F <sub>2</sub> %																			
290-320																			

Produkt H<sub>2</sub> Sulfid

710

Paraffin serwisze

№ 752	Kator. №. = 2490 / R27		Pemeriksaan: 16 Liter			Open. №. 11	Version of 652	5			
	Barum	11.1.44	2.1.44	13.1.44	13.1.44				14.1.44		
	Bar. Sea	448	472	496	503	520					
	Temp. °C	22.0°	22.0°	22.0°	22.0°	22.0°					
	Deuck airi pencetakan	10.0	10.0	10.0	10.0	10.0					
	Waktu & L. L. L. L.	135 / 25	154 / 42	172 / 11	-	179 / 112					
	Kloro 1.2 X	-	-	-	-	-					
	Waktu D. gum Kloro										
	Waktu	0.736	0.649	0.563	0.768	0.556					
	Vol % CO <sub>2</sub>	0.8	31.7	6.5	29.2	6.3	30.0	6.3	28.5	6.6	28.6
	C <sub>2</sub> H <sub>6</sub>	0.0	0.5	0.0	1.0	0.0	2.8	0.0	0.8	0.0	2.7
	O <sub>2</sub>	0.2	0.1	1.1	0.2	0.0	0.1	0.0	0.2	0.1	0.1
	CO	38.0	13.9	38.9	15.7	38.8	13.6	38.8	15.5	38.5	16.5
	H <sub>2</sub>	42.5	44.0	49.0	44.0	48.9	45.3	48.9	45.2	49.5	43.4
	F	20.5	57.9	27.9	54.7	27.7	58.9	24.7	60.7	28.0	59.9
	CH <sub>4</sub>	0.1	2.3	0.2	1.7	0.2	0.4	0.2	2.5	0.2	1.7
	C <sub>2</sub>	-	1.00	-	1.50	-	1.00	-	1.00	-	1.00
	Vol % N <sub>2</sub>	0.4	2.5	5.3	2.2	5.8	9.2	5.8	4.3	5.1	9.0
	He. Finalis %	12.1	24.6	15.5	23.9	16.1	22.6	16.1	21.0	14.9	26.8
	CO + H <sub>2</sub> Rumus % U	50.7	56.1	52.3	52.3	46.9	46.9	62.1	62.1	62.1	62.1
	CO + C <sub>2</sub> H <sub>6</sub> % M <sub>2</sub>	14.6	7.3	0.0	0.0	16.5	16.5	5.1	5.1	5.1	5.1
	CO: x H <sub>2</sub>	X	2.58	0.72	0.25	0.53	0.53	0.87	0.87	0.87	0.87
	Waktu g/cm sec	7.2	9.5	11.8	11.8	7.4	7.4	10.8	10.8	10.8	10.8
	Waktu 1/4 in		100.5								
	Waktu 1/2 in		11								
	Waktu 1 in		27.4								
	200-290°		8.5								
	290-320°		4.3								
	320-460°		18.3								
	> 460°		38.9								
	Per > 290°		61.5								
	Waktu 1/2 in		82.0								
	200-290°		74.5								
	290-320°		70.5								
	Waktu 1/2 in										
	200										
	290-320°										

Paraffin dunkelbraun

# Gasolausbeute.

Versuch Nr. 652.

<b>Datum:</b>	vom	27.12.43	3.1.44	9.1.44
	bis	30.12.43	6.1.44	18.1.44
<b>Zeit:</b>	vom	9 <sup>00</sup>	9 <sup>00</sup>	9 <sup>00</sup>
	bis	9 <sup>40</sup>	9 <sup>00</sup>	9 <sup>00</sup>
<b>Eingangsgas</b>		8.-Gas	10.-Gas	10.-Gas
<b>Nm<sup>3</sup></b>		9,86	10,98	10,54
<b>Restgas</b>	N/l	125,0	43,0	88,0
<b>Gasol</b>	l			
mit %				
	CO <sub>2</sub>	31,4	29,2	34,0
	C <sub>3</sub> H <sub>6</sub>	39,7	41,2	40,7
	C <sub>2</sub> H <sub>4</sub>	2,1	2,2	1,0
	O <sub>2</sub>	1,0	0,6	0,1
	CO	2,2	1,7	2,1
	H <sub>2</sub>	0,6	3,7	4,1
	CH <sub>4</sub>	14,9	14,0	14,7
	N <sub>2</sub>	4,5	4,4	6,3
	C-Z.	3,40	3,49	2,98
<b>entsprechen</b>	g/l	1,131	1,148	1,026
<b>Ausbeute:</b>	g Gasol	111,1	106,5	100,2
	g/Nm <sup>3</sup>			
	Eingangsgas	14,3	9,8	9,6

**Bemerkungen:**

100 Fe 5 Cu 10 CaO 50 Kgr.

**Nass**

Gefüllt mit  $K_2CO_3$  (Feilg).  
10 Kgr. vorgelegt, 40 Kgr. nachgelegt.  
mit 600 ccm W. / 25g Fe gemischt (normal).

**Feucht**

**Trocken:**

Produkt: Dauer: 24 Std.  
 Nr.: 28 Gas:  $H_2$  /  $N_2$   
 Temp.: 325°  
 Durchsatz: \_\_\_\_\_  
 Druck: normal

	unred.	red.	
g Kat. / Liter	508	335	Korngröße ..... 1-3 mm
g Fe / Liter	220		Fe in 2% Essigl. .... 91,0 %
Porenvolumen %		60,0%	Fe-Met. aus $H_2$ Entk. .... %
Bees.-Wärme	+	10	Kohlenstoff ..... %

Menge Katalin Ofen:  $1440 \text{ cm}^3 = 640 \text{ g Katalin in 10 Kohlenst.$

\* Diese Herstellungsgang ergibt hinsichtlich Fe-Gehalt und Porenverteilung  
 unterschiedliche Verhältnisse.  
 Hauptfrage: Geht es sich bei Verwendung Natur- oder Porzellan?

№ 752		Kator. №. F. 181 / R 28		Göteborg: 7.4		Leder		Blom nr 13		Versuchs nr 653		1							
Datum		26.12.43	27.12.43	28.12.43	29.12.43	30.12.43	31.12.43	1.1.44	3.1.44	4.1.44									
Boer Sid		44	68	90	114	138	162	210	234	258									
Temp °C		200°	203°	203°	205°	205°	210°	210°	210°	215°									
Fickvol. $\frac{V}{V_{O_2}}$		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0									
Fickvol. $\frac{V}{V_{CO_2}}$		188/131	143/100	157/109	147/102	153/106	159/111	205/142	147/102	176/122									
Kvot $\frac{V_{CO_2}}{V_{O_2}}$		-	-	-	-	-	-	-	-	-									
pH		4,7	7,8	6,9	7,2	6,5	6,3	4,2	6,8	5,7									
Vol% CO <sub>2</sub>		6,8	30,8	6,6	33,9	6,8	32,7	7,2	33,9	6,6	30,5	6,6	32,2	6,4	27,6	6,7	39,5	6,4	31,2
C <sub>2</sub> H <sub>6</sub>		0,0	0,9	0,0	0,8	0,0	1,1	0,0	2,3	0,0	2,5	0,0	1,1	0,0	1,6	0,0	0,5	0,0	0,5
O <sub>2</sub>		0,0	0,0	0,1	0,3	0,2	0,2	0,0	0,0	0,0	0,1	0,2	0,2	0,0	0,0	0,2	0,2	0,1	0,3
CO		38,8	13,9	38,3	18,9	37,6	10,6	37,6	9,3	38,3	11,6	37,9	9,9	38,4	14,1	37,8	14,8	38,1	11,8
H <sub>2</sub>		48,6	42,7	49,0	47,6	49,4	44,7	48,8	43,8	49,1	44,5	49,5	45,3	42,8	41,5	49,3	44,2	49,0	42,5
F		87,7	36,6	87,3	65,6	87,0	55,3	86,4	53,1	87,4	56,7	87,4	55,2	87,2	58,6	87,1	59,0	87,1	57,3
C <sub>4</sub> H <sub>2</sub>		0,1	2,8	0,1	1,7	0,1	2,0	0,2	2,5	0,2	2,0	0,2	2,4	0,2	2,5	0,2	1,9	0,2	3,0
C <sub>2</sub>		-	1,00	-	1,00	-	1,00	-	1,00	-	1,00	-	1,00	-	1,00	-	1,00	-	1,00
Vol% N <sub>2</sub>		57	16,9	5,9	8,2	5,9	8,7	6,2	8,7	5,8	8,8	5,6	8,9	6,2	2,7	5,8	8,9	6,2	10,7
N <sub>2</sub> Fickvol. $\frac{V}{V_{N_2}}$		1,0	36,6	0,9	23,9	1,0	25,5	1,0	25,3	1,0	25,4	1,0	25,5	17,9	37,2	17,1	26,4	17,1	37,2
CO <sub>2</sub> -N <sub>2</sub> $\frac{V_{CO_2}}{V_{N_2}}$		67,8	46,8	58,2	56,5	58,0	59,7	69,2	56,2	64,5									
CO <sub>2</sub> % M <sub>2</sub>		2,0	10,8	9,5	13,2	8,7	10,0	6,6	8,2	10,7									
100: x H <sub>2</sub>		0,86	0,60	0,65	0,57	0,65	0,65	0,91	0,73	0,79									
Fickvol. $\frac{V}{V_{CO_2}}$		120,5	76,0	95,3	88,0	96,3	101,0	117,1	93,3	104,0									
R. P. $\frac{V_{CO_2}}{V_{O_2}}$						70,8		50,6		58,7									
Euler's $\frac{V_{CO_2}}{V_{O_2}}$										16,5									
Scinlage																			
- 200°																			
200-290°																			
290-320°																			
320-460°																			
> 460°																			
Riz > 290°																			
- 200°																			
200-290°																			
290-320°																			
Ulyne o. m. l. l. g. g.																			
- 200°																			
200-320°																			
F <sub>100</sub> %																			
200-320°																			
Am 90			203°	205°		210°				215°									
Am 90								128											

Produktanalyse & A. gew. Analyse  
 Sulfonatrium-Nachweis & Jod-Nachweis



№ 752		Kator. № F. 2181		R. 8		Gemin. ill. 1.4		L. 100		Olen. № 13		Version. № 655	
Datum		14.1.44	14.1.44	15.1.44	16.1.44	17.1.44	18.1.44	19.1.44	20.1.44	21.1.44			
Bar. sea		498	503	522	546	570	594	618	642	666			
Temp °C		215°	215°	215°	215°	215°	215°	215°	215°	215°			
Druk ali pischevsta		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0			
m. like i. s. kato		143/130	-	148/103	152/106	183/124	152/116	163/113	151/105	144/100			
Kroll 1+X		-	-	-	-	-	-	-	-	-			
Kroll %		0.572	0.666	0.672	0.665	0.559	0.654	0.633	0.670	0.704			
Vol. % CO <sub>2</sub>		6.6 25.2	6.6 31.9	6.5 31.7	6.2 30.0	6.2 32.3	6.0 31.8	6.0 31.7	6.0 32.9	6.0 30.1			
C <sub>n</sub> H <sub>m</sub>		0.0 1.0	0.0 1.1	0.0 1.1	0.1 0.7	0.0 0.3	0.0 1.2	0.0 0.6	0.0 1.3	0.0 1.6			
O <sub>2</sub>		0.1 0.0	0.1 0.2	0.2 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.0 0.1	0.1 0.1	0.1 0.1			
CO		38.5 19.3	32.5 12.0	38.3 12.3	39.1 2.2	32.8 12.3	39.0 12.0	38.6 12.0	39.0 12.3	38.5 12.4			
H <sub>2</sub>		49.5 45.0	44.4 44.4	44.8 44.4	42.3 46.0	49.7 42.6	42.5 42.2	44.0 42.7	42.3 42.3	42.8 43.9			
F		88.6 64.3	82.0 56.4	82.1 56.7	82.4 52.2	82.2 54.9	81.5 54.2	82.6 54.7	81.3 53.2	82.3 50.3			
CH <sub>4</sub>		0.2 0.7	0.2 2.6	0.2 2.7	0.2 2.2	0.2 2.9	0.3 3.5	0.2 3.1	0.3 3.3	0.3 3.2			
C <sub>2</sub>		- 1.00	- 1.00	- 1.00	- 1.00	- 1.00	- 1.38	- 1.00	- 1.00	- 1.00			
Vol. % N <sub>2</sub>		5.1 8.2	5.1 4.8	5.0 4.6	6.0 2.8	5.3 9.5	6.1 9.2	6.2 9.8	6.3 9.2	6.2 8.7			
H <sub>2</sub> Fuel %		14.9 25.1	14.9 22.4	14.9 22.2	14.8 26.9	15.2 27.2	17.5 26.2	17.7 28.0	17.9 26.7	17.1 25.3			
CO <sub>2</sub> H <sub>2</sub> Umw. % Cl		52.4	57.3	56.1	55.8	65.4	59.5	60.5	59.2	54.2			
CO <sub>2</sub> H <sub>2</sub> % M <sub>2</sub>		7.6/1	11.9	12.8	10.7	9.7	10.7	13.6	14.7	16.7			
100: X H <sub>2</sub>		0.87	0.65	0.67	0.58	0.80	0.67	0.71	0.61	0.60			
g/cm <sup>3</sup> sea		105.2	92.5	90.8	90.6	102.2	97.0	95.4	91.8	82.7			
g/cm <sup>3</sup> H <sub>2</sub> sea		-	-	71.1	-	-	24.9	-	-	71.9			
g/cm <sup>3</sup> H <sub>2</sub> sea		-	-	10.6	-	-	-	-	-	9.7			
- 200°													
200-290°													
290-320°													
320-460°													
> 460°													
Bar ° 290°													
- 200°													
200-290°													
290-320°													
Define ° 0. m. d. s. p.													
- 200°													
290-320°													



	22.1.44	23.1.44	24.1.44	25.1.44	26.1.44	27.1.44	28.1.
Bar. Bar	690	714	738	762	786	810	833
Temp °C	245°	216°	215°	215°	213°	215°	213°
Reuch air	10,0	10,0	10,0	10,0	10,0	10,0	10,0
Reuch gas	185/94	144/102	137/95	135/94	128/89	181/91	133/93
Reuch 1%K	-	-	-	-	-	-	-
Reuch 2%							
Reuch 3%							
Reuch 4%							
Reuch 5%							
Reuch 6%							
Reuch 7%							
Reuch 8%							
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Reuch 93%							
Reuch 94%							
Reuch 95%							
Reuch 96%							
Reuch 97%							
Reuch 98%							
Reuch 99%							
Reuch 100%							

80mm durchfall. Kern 1. Hal. in 8. Stück gesteckt

Kern 653

1/1

Blatt 4

# Gasol ausbeute.

Versuch Nr. 453.

<b>Datum:</b>	vom bis	2. 1. 44 4. 1. 44	7. 1. 44 10. 1. 44	12. 1. 44 15. 1. 44	18. 1. 44 21. 1. 44
<b>Zeit:</b>	vom bis	9 <sup>00</sup> 9 <sup>00</sup>	9 <sup>00</sup> 9 <sup>00</sup>	9 <sup>00</sup> 9 <sup>00</sup>	9 <sup>00</sup> 9 <sup>00</sup>
<b>Eingangsgas</b>		10. - Gas	10. - Gas	10. - Gas	10. - Gas
<b>Nm<sup>3</sup></b>		7, 76	11. 01	10, 98	10, 97
<b>Restgas</b>	N/l	130.0	120.0	106.0	92.0
<b>Gasol</b>	l				
<b>mit %</b>					
	CO <sub>2</sub>	36.2	31.9	30.3	30.8
	C <sub>3</sub> H <sub>6</sub>	34.3	33.0	35.9	39.2
	C <sub>2</sub> H <sub>4</sub>	2.9	2.7	4.4	2.5
	O <sub>2</sub>	6.6	0.8	1.3	0.2
	CO	1.7	1.9	2.6	2.4
	H <sub>2</sub>	3.2	2.8	2.2	0.9
	CH <sub>4</sub>	12.6	15.3	15.9	14.5
	N <sub>2</sub>	8.5	11.6	7.4	6.5
	C-Z.	3.43	3.61	3.27	3.15
<b>entsprechen</b>	g/l	0, 985	1, 039	1, 092	1, 154
<b>Ausbeute:</b>	g Gasol	128, 0	134, 1	116, 0	106, 0
	g/Nm <sup>3</sup> Eingangsgas	16, 5	11, 3	10, 6	9, 7

**Bemerkungen:**

Mr. 751 Labor: Arbeit - Nat. Fabrik Nat. Nr.: F 8171/R 29 Vers. Nr.: 654

100 Fe. S. Cu 10. CaO 30. Kgr. 3% KOH impr.

Nass

Feucht

Imprägniert mit 3% KOH.

Für die Verformung in der Fadenpresse vorgetrocknet.

Trocken:

24 St. lang bei 420° in Luft erh. Fest.

Produkt: Dauer: 24 Stk.

Nr.: R 29 Gas: H<sub>2</sub>Ne

Temp.: 325°

Durchsatz: \_\_\_\_\_

Druck: normal

Kontakt 24 Stk. bei 420° ~~gemessen~~

	unred.	red.	
g Kat. / Liter	735	645 <sup>2</sup>	Korngröße ..... 2. mm
g Fe. / Liter			Fe in 2% Ess. ll. .... 64,3 %
Porosvolumen %	60,0	65,8%	Fe-Met. aus H <sub>2</sub> Entk. .... %
Benz. Wärme	1,3°	3,4°	Kohlenstoff ..... %
Menge Katalim Ofen: 1360 cm <sup>3</sup> = 1060 g Kontakt in 1/6 Rohren.			



No 752

Kator. No. F2131/229

Open m. d. 1.4

Letor

Open No 15

Desiccator No 654

2

	Datum	10.1.44	11.1.44	12.1.44	13.1.44	13.1.44	14.1.44	15.1.44	16.1.44	17.1.44										
	Refr. Ind	258	282	306	330	337	354	378	402	426										
	Temp °C	220	220	220	220	220	220	220	220	220										
	Pressure at distillation	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0										
	Pressure at analysis	145/1.5	141/1.4	156/1.2	115/1.5	-	145/1.07	151/1.11	135/1.00	154/1.20										
	Wt. loss	-	-	-	-	-	-	-	-	-										
	Wt. loss per gram	0.670	0.714	0.672	0.275	0.798	0.697	0.672	0.759	0.664										
C <sub>2</sub>	Vol % CO <sub>2</sub>	6.7	8.0	6.8	25.5	6.5	65.7	6.3	25.2	6.3	24.7	6.6	25.5	6.5	24.9	6.2	22.0	6.2	23.0	
	" C <sub>2</sub> H <sub>4</sub>	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.4	0.0	0.0	0.0	0.3	0.0	0.1	0.1	0.0	0.0	2.0	
	" O <sub>2</sub>	0.0	0.2	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.0
	" CO	37.8	17.3	38.1	19.0	38.9	30.5	38.8	30.5	38.8	20.6	38.5	50.2	38.3	20.6	39.1	21.5	38.8	20.3	
	" H <sub>2</sub>	49.6	44.3	48.5	44.8	49.0	44.4	48.9	46.0	48.9	45.8	49.5	54.4	49.8	45.5	48.3	44.3	49.4	45.9	
	" F	27.1	21.6	20.5	23.8	24.9	24.9	24.7	26.5	24.4	24.4	22.0	25.6	28.1	26.1	24.4	28.8	28.2	26.2	
	" CH <sub>4</sub>	0.2	1.8	0.1	1.1	0.2	1.2	1.2	1.6	0.2	1.6	0.2	1.3	0.2	1.3	0.2	1.2	0.2	1.1	
	" C <sub>2</sub> H <sub>2</sub>	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	
	" N <sub>2</sub>	5.7	2.9	6.4	9.0	5.3	2.1	5.8	6.2	5.8	4.2	5.1	4.3	5.0	4.5	6.0	4.8	5.3	4.7	
	" H <sub>2</sub> Sulfide %	16.9	25.2	12.1	25.8	15.5	23.1	16.1	18.4	16.1	20.2	14.9	21.4	14.9	22.0	17.8	23.5	15.2	22.9	
CO - H <sub>2</sub> Balance % O <sub>2</sub>	52.9	47.3	50.4	33.5	39.5	47.9	49.1	40.3	50.2	50.2	49.1	40.3	50.2	40.3	50.2	50.2	50.2	50.2		
CO <sub>2</sub> - H <sub>2</sub> Balance % H <sub>2</sub>	8.7	6.8	5.4	16.3	12.7	6.6	6.5	8.0	4.5	4.5	6.6	6.5	8.0	8.0	4.5	4.5	4.5	4.5		
Wt. loss g/cm <sup>3</sup>	87.9	79.5	87.4	51.3	62.9	81.7	84.2	62.5	82.0	82.0	62.5	82.0	62.5	82.0	62.5	82.0	62.5	82.0		
Wt. loss H <sub>2</sub> O		11.4																		
Wt. loss - 200°		30.0																		
Wt. loss 200-290°		9.5																		
Wt. loss 290-320°		5.7																		
Wt. loss 320-460°		19.9																		
Wt. loss > 460°		30.6																		
Wt. loss Res > 290°		56.2																		
Wt. loss - 200°		52.5																		
Wt. loss 200-290°		73.5																		
Wt. loss 290-320°		75.0																		
Wt. loss Alpine - 200°																				
Wt. loss - 200-320°																				

Paraffin gran.

	Barom	18.1.44	19.1.44	20.1.44	21.1.44	22.1.44	23.1.44	24.1.44	25.1.44	26.1.44
	Bar. Hg	450	474	498	522	546	570	594	618	642
	Temp °C	225°	228°	225°	226°	226°	225°	225°	223°	225°
	Pres. alt	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
	Pres. alt	150/110	150/110	153/113	133/98	148/109	147/86	168/124	159/117	161/118
	Humid. 1-X	-	-	-	-	-	-	-	-	-
	R <sub>p</sub> mm. / sec.									
		0.687	0.689	0.661	0.755	0.671	0.852	0.581	0.608	0.599
	Vol % CO <sub>2</sub>	6.0 27.6	6.0 28.1	6.0 27.7	6.0 28.0	6.3 26.7	6.4 28.2	6.3 27.9	6.4 28.4	6.5 27.6
	C <sub>2</sub> H <sub>6</sub>	0.0 0.0	0.0 0.1	0.0 0.4	0.0 0.0	0.0 0.1	0.0 0.0	0.0 0.3	0.1 0.6	0.0 0.2
	O <sub>2</sub>	0.1 0.1	0.0 0.1	0.1 0.0	0.1 0.0	0.1 0.0	0.0 0.1	0.3 0.0	0.3 0.3	0.1 0.2
	CO	39.0 14.5	38.6 14.1	39.0 14.6	38.5 17.3	38.6 18.7	38.6 14.6	38.2 14.1	38.9 17.2	38.4 17.5
	H <sub>2</sub>	48.5 43.3	49.0 44.1	48.3 44.5	48.8 45.7	48.5 43.8	48.3 45.3	49.6 42.8	48.3 43.2	49.4 44.1
	F	84.5 60.8	84.6 61.2	84.3 62.1	84.3 63.0	84.1 62.5	84.9 62.9	84.8 60.2	84.2 60.4	84.8 61.6
	CH <sub>4</sub>	0.3 2.6	0.2 1.5	0.3 0.7	0.3 1.0	0.2 1.5	0.2 1.1	0.0 2.0	0.1 1.5	0.2 1.6
	CX	-	1.00	-	1.00	-	1.00	-	1.00	-
	Vol % N <sub>2</sub>	6.1 8.9	6.2 9.0	6.3 9.1	6.3 8.0	6.3 9.2	6.5 4.4	5.6 9.6	5.9 8.0	5.4 8.8
	N <sub>2</sub> Findberg %	14.5 25.5	14.7 25.7	14.9 27.1	14.8 23.6	17.9 26.7	18.3 24.5	16.2 27.9	16.7 27.5	15.7 26.2
	CO <sub>2</sub> Findberg %	52.4	51.8	52.8	45.4	51.9	38.4	60.1	57.9	58.1
	CO <sub>2</sub> Findberg %	19.1	4.1	1.7	5.1	7.1	8.1	9.1	6.3	6.3
	CO <sub>2</sub> Findberg %	0.70	0.69	0.69	0.56	0.74	0.42	0.88	0.78	0.82
	W <sub>2</sub> / cm sec	83.0	84.5	94.3	48.2	84.4	63.4	99.7	98.4	99.5
	A. 200° / 160°			60.0			68.4			56.9
	Scaleage						14.3			
	200°			38.8			35.3			
	200-290°			4.7			4.4			
	290-320°			4.9			5.8			
	320-460°			19.6			20.6			
	> 460°			86.6			37.1			
	Res → 290°			51.1			62.5			
	SP <sub>2</sub> Ac %			75.0			73.0			
	200-290°			64.0			60.0			
	290-320°			52.5			50.5			
	Optical Density									
	200									
	290-320°									

Keough No. 654 Box 3

# Gasol ausbeute.

Versuch Nr. 657...

Datum:	vom bis	2. 7. 44 5. 7. 44	8. 7. 44 11. 7. 44	14. 7. 44 17. 7. 44	20. 7. 44 23. 7. 44
Zeit:	vom bis	9 <sup>00</sup> 9 <sup>00</sup>	9 <sup>00</sup> 9 <sup>00</sup>	9 <sup>00</sup> 9 <sup>00</sup>	9 <sup>00</sup> 9 <sup>00</sup>
Eingangsgas		W.-Gas	W.-Gas	W.-Gas	W.-Gas
	Nm <sup>3</sup>	10.49	10.27	10.53	9.56
Restgas	N/l	96.0	108.2	101.0	157.1
Gasol	l				
mit %					
	CO <sub>2</sub>	38.2	33.2	34.2	32.1
	C <sub>3</sub> H <sub>6</sub>	28.9	39.4	34.5	35.3
	C <sub>2</sub> H <sub>4</sub>	1.4	0.8	2.9	4.1
	O <sub>2</sub>	0.9	0.1	0.5	0.3
	CO	3.5	2.1	4.8	3.6
	H <sub>2</sub>	3.2	4.2	0.4	2.0
	CH <sub>4</sub>	12.8	15.4	17.6	17.0
	N <sub>2</sub>	11.1	4.8	5.1	5.6
	G-Z.	2.27	3.11	2.57	3.09
	entsprechen g/l	0.853	1.027	1.005	1.023
Ausbeute:	g Gasol	81.8	116.5	100.1	137.0
	g/Nm <sup>3</sup> Eingangsgas	4.7	11.7	9.6	14.3

Bemerkungen:

100 Fe 5. Cu 10. CaO 30. Kgr. 3% KOH im pr.

Mass Sodafällung

Feucht: Imprägniert mit 3% KOH.  
Vor der Verformung in der Fadenpresse vorgetrocknet.

Trocken:

Produkt: Dauer: 24 Std.

Mr. R30 Gas: H<sub>2</sub> N<sub>2</sub>

Temp.: 360°

Puritätsgrad: \_\_\_\_\_

Druck: normal

	unred.	red.	
g Kat. / Liter	735	790	Korngröße ..... 2... mm
g Fe / Liter			Fe in 2% Essigl. ... 61.5 %
Porenvolumen %	60.0	64.9	Fe-Met. aus H <sub>2</sub> Entk. .... %
Berez.-Körniz.	1.3°	2.9°	Kohlenstoff ..... %
Menge Katal im Ofen: 1600 cm <sup>3</sup> = 1535 g Kontakt in 16 Röhren			









# Gasolausbeute.

Versuch Nr. 655...

Datum:	vom	4.1.44	7.1.44	13.1.44	19.1.44
	bis	7.1.44	10.1.44	16.1.44	22.1.44
Zeit:	vom	9 <sup>00</sup>	9 <sup>00</sup>	9 <sup>00</sup>	9 <sup>00</sup>
	bis	9 <sup>00</sup>	9 <sup>00</sup>	9 <sup>00</sup>	9 <sup>00</sup>
Eingangsgas		W.-Gas	W.-Gas	W.-Gas	W.-Gas
Nm <sup>3</sup>		10.00	11.60	11.38	11.20
Restgas	N/l	43.0	100.0	110.0	117.0
Gasol.	l				
mit %	CO <sub>2</sub>	33.9	35.8	30.5	37.6
	C <sub>3</sub> H <sub>8</sub>	32.5	35.7	36.0	43.9
	C <sub>2</sub> H <sub>4</sub>	1.4	2.7	1.2	3.2
	O <sub>2</sub>	0.8	0.4	1.1	0.3
	CO	3.1	2.0	9.3	2.5
	H <sub>2</sub>	3.1	2.8	0.5	2.7
	CH <sub>4</sub>	16.4	14.7	25.1	14.6
	N <sub>2</sub>	8.8	6.5	17.3	5.5
	C-Z.	3.55	3.00	2.34	3.17
	entsprechen	g/l	1,035	1,004	0,909
Ausbeute:	g Gasol	45.5	100.0	99.9	140.0
	g/Nm <sup>3</sup> Eingangsgas	7.6	8.7	8.8	12.5

Bemerkungen:

Nr. 751 Labor-<sup>1990</sup>halbt-Kat. Fabrik Kat. Nr.: F<sup>2190</sup>2171 Vers. Nr. 656

Nr. R27 F2190 100 Fe 5 Cu 10 CaO 30 Kgr. 5% Kohlensäure  
 Nr. R24 F2171 100 Fe 5 Cu 10 CaO 30 Kgr. 3% Kohlensäure  
 Nr. R29 F2171 " " " "

Nass F2190: Sodafällung  
 3x aufgeschlämmt.

Feucht: Imprägniert mit 5% KOH.  
 F2171: Imprägniert mit 3% KOH.  
 vor der Verformung in der Fadenpresse vorgetrocknet.

Trocken:

F2171/R29 24 Stk. lang bei 420° in Luft erhitzt.

Redukt. Dauer: 24 721

M: 24 Gas: H<sub>2</sub>N<sub>2</sub>

27 Temp.: 325°

29 Durchsatz:

Druck: normal

	unred.	red.		F2190 red.	Korngr.
g Kat. / Liter	735	648 / 835	Korngröße ..... 2 mm	g Kat. 2 855	1-3 mm
g Fe / Liter	621	266	Fe in 2% Ess. ll. R29 64.3 / 20.5	20.5	Fe in 2% Ess. ll. 19.5%
Porenvolumen %	- 60.0	65.2 / 68.4	Fe-Met. aus H <sub>2</sub> Entk. .... %	66.3%	
Basiz. N <sub>2</sub> ml	1.3°	3.4° / 3.1°	Kohlenstoff ..... %	Basiz. N. 1.6°	

Menge Kation im Ofen:

Untere Pf. / g: 2.28 kg  
 Mittlere Pf. / g: 1.34 kg  
 Obere Pf. / g: 0.50 kg  
 4.92 kg ≈ ~ 5 l

Yellow Vulture

Active Vess. 556

	-200	-290	-320	>320
NZ:	9	1	4	1
%f.c.	1.0%	0.3%	1.5%	0.0%
VZ-NZ:	38	57	54	58
%VZ	7.9%	20.7%	24.8%	33.3%
OHZ:	264	727	93	32.5
%OHZ	36.1%	38.7%	37.1%	21.9%
OOZ	15	40	6	3
%OHZ	5.0%	5.4%	4.9%	3.6%

% of Salty: 50.0% 65.1% 68.3% 63.9%

	72	66	40	30	25
%Clf.pac.	29.5%	30.5%	58.7%	34.5%	

2 SPL: 80.0% 79.2% 57.7%

AB. 2. 48.

Dr. H. H. ...









Nr. 751 | Labor-halbt. - Kohl-Fabrik | Kat. Nr.: 2201/832 | Vers. Nr. 657 Ein-Rohr  
 Ofen

100 Fe 5. Cu 10. CaO 50. Kgr. mit Potrasene gefüllt!

Nass : Potrasenefüllung  
30 Min. Heiswaschung

Feucht:

Trocken: Katowerklastete Trockenschrank ~ 170°

Produkt: Dauer: 24 Std.

M. R 32 Gas: H<sub>2</sub> N<sub>2</sub>

Temp.: 300°

Purchsatz: 35 m<sup>3</sup>/h

Druck: normal

	unred.	red.	
g Kat. / Liter	435	426	Korngrösse ..... 1-3 mm
g Fe / Liter			Fe in 2% Ess. ll. ... 93.5 %
Porenvolumen %	64.6	73.6	Fe-Met., aus H <sub>2</sub> Entk. .... %
Benzol-Konz. %	0.4°	1.0°	Kohlenstoff ..... %

Menge Katorim Ofen: 1.9 + kg = 5 l

Sonderartigigwuchstern geprüft!

1	2	3	4
0.3%	0.3%	0.3%	0.3%
1	4	5	13
0.3%	0.3%	0.3%	0.3%
1	1	1	1
50.2%	49.8%	49.8%	49.8%
58.3%	49.8%	39.4%	33.4%

24	35	29	23	20
15.7%	20.9%	22.0%	22.0%	22.0%
49.6%	59.1%	41.0%		

17.2.44

Includes

No 752 Kator. № R2201/R32 Geminid. 5. C. Loco Open № MRL Densit. of 65.7 1

Datum	6.1.44	6.1.44	7.1.44	7.1.44	7.1.44	8.1.44	9.1.44	10.1.44	10.1.44
Bohr Lad	11	14	38	36	40	56	20	304	111
Temp °C	165.5°	175.0	195.0	203.0	203.0	206.0	207.0	207.0	210.0
Pressure at	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Pressure at	162	171	287	378	424	474	430	419	417
Pressure at	133	154	157	76	81	81	86	84	84
Moist 1-X	-	-	-	-	-	-	-	-	-
1000 gm									
1000 cu	94.1	94.5	89.5	77.5	80.4	78.3	74.9	76.5	76.5
Vol % CO <sub>2</sub>	6.7	4.8	6.2	11.3	6.4	15.5	6.4	15.2	6.1
C <sub>2</sub> H <sub>6</sub>	0.0	0.0	0.0	0.3	0.0	0.5	0.0	0.8	0.0
O <sub>2</sub>	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.0
CO	38.5	33.0	38.5	31.4	38.6	30.9	38.0	29.0	38.6
H <sub>2</sub>	48.6	55.2	48.6	49.8	48.9	47.5	48.9	46.1	48.9
F	87.1	83.2	87.1	81.2	87.5	78.1	87.5	75.1	87.5
CH <sub>4</sub>	0.3	0.6	0.3	0.7	0.2	1.3	0.2	1.3	0.2
C <sub>2</sub>	-	1.00	-	1.00	-	1.00	-	1.00	-
Vol % H <sub>2</sub>	5.9	6.2	5.9	6.3	5.9	6.6	5.9	7.2	6.0
H <sub>2</sub> Sulfide	18.0	16.9	17.9	16.8	18.8	6.2	21.7	16.8	20.9
CO-H <sub>2</sub> balance	10.0	10.2	10.2	10.2	33.3	30.9	37.1	37.1	37.4
COal	9.2	7.2	7.2	7.2	8.2	11.8	14.7	8.7	14.7
CO <sub>2</sub> x H <sub>2</sub>	0.73	0.73	0.61	0.82	0.82	0.82	0.83	0.83	0.81
g/cm sec	6.4	8.2	8.1	5.5.8	4.9.2	5.3.1	6.1.5	5.7.8	5.8.21

- R. Feed 1/4 in
- G. 100° 8 in
- 200°
- 200-290°
- 290-320°
- 320-460°
- > 460°
- R. > 290°
- 200°
- 200-290°
- 290-320°
- Alpine 0.1000
- Seco % - 200
- 290-320°
- Amso

MSO



Mr. 751 | Labor: hdt. | Kat. Fabrik | Kat. Nr. 52171 / R31 | Vers. Nr. 658

100 Fe 5 Cu 10 CaO 20 Agr. 3% KOH im pos.

Mass

Feucht: Imprägniert mit 3% KOH  
für die Verformung in der Fadenpresse vorgetrocknet.

Trocken:

Redukt. Dauer: 24 Std.

Nr.: 31 Gas: H<sub>2</sub> N<sub>2</sub>

Temp.: 400°

Durchsatz: \_\_\_\_\_

Druck: normal

	unred.	red.	
g Kat. / Liter	735	940	Korngrösse ..... $\mu$ mm
g Fe / Liter			Fe in 2% Ess. ll. . . . . 59.2 %
Porenvolumen %	60.0	59.6	Fe-Met. aus H <sub>2</sub> Entk. .... %
Ben.-Kazim	1.3°	3.8°	Kohlenstoff ..... %
Menge Katorim Ofen: 1280 cm <sup>3</sup> = 1295 g Konzentrat in 10 Röhren			

№ 752 Kalor. № 73771/R31 Glycerin. 1.3 Licit Opn. №. 9 Persich. №. 658 1

Datum	8.1.44	9.1.44	10.1.44	11.1.44	12.1.44	13.1.44	14.1.44	15.1.44	16.1.44									
Bar. Sea	18	42	66	90	114	138	162	186	210									
Temp. °C	200°	205°	205°	210°	210°	215°	220°	220°	220°									
Temp. at 1000 m	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0									
Pressure	123/96	130/94	136/107	125/98	118/93	126/99	139/109	130/102	121/95									
Water 1+X	-	-	-	-	-	-	-	-	-									
1000 m	80.3	88.7	70.8	79.8	81.7	77.5	41.7	74.6	84.9									
Vol. % CO <sub>2</sub>	6.4	17.7	7.0	17.1	6.7	15.5	6.8	17.6	6.5	14.9	6.3	17.5	6.6	17.2	6.75	16.0	6.2	16.0
C <sub>2</sub> H <sub>4</sub>	0.0	0.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.2	0.0	0.4	0.1	0.6
O <sub>2</sub>	0.1	0.1	0.0	0.2	0.0	0.2	0.0	0.0	0.1	0.2	0.0	0.2	0.1	0.2	0.2	0.2	0.1	0.2
CO	38.1	36.3	37.6	28.1	37.8	29.0	51.0	26.6	38.9	29.9	38.2	22.2	38.5	27.8	38.3	28.3	39.1	28.1
H <sub>2</sub>	44.5	47.0	48.9	46.4	48.3	40.7	42.5	47.3	49.0	47.8	48.9	44.3	49.5	47.2	49.8	47.0	48.3	46.8
Σ	17.6	73.9	87.6	74.5	87.4	75.7	80.5	73.9	87.9	74.4	87.7	74.5	88.0	75.0	88.1	75.3	84.4	74.9
CH <sub>4</sub>	0.2	1.7	0.3	0.6	0.2	0.1	0.1	0.5	0.2	0.5	0.2	0.5	0.2	0.4	0.2	0.4	0.2	0.5
C <sub>2</sub> H <sub>6</sub>	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00
N <sub>2</sub>	5.7	4.1	6.0	6.9	5.7	8.2	7.4	8.0	5.3	6.5	5.8	4.0	5.1	4.0	5.0	6.8	6.0	4.2
N <sub>2</sub> Equival. %	15.9	19.8	6.9	30.6	10.9	23.9	18.1	22.7	15.5	19.0	16.1	20.8	14.9	20.8	14.9	21.0	17.8	27.0
CO <sub>2</sub> - H <sub>2</sub> balance % Cl	32.3	30.2	38.8	31.9	37.7	34.2	34.2	34.9	36.2	27.4								
CO <sub>2</sub> - CH <sub>4</sub> balance % H <sub>2</sub>	5.7	3.0	1.2	4.4	3.3	2.7	1.2	3.8	3.8									
100: H <sub>2</sub>	X	0.72	0.74	0.96	0.64	0.69	0.70	0.84	0.86	0.56								
Pressure	53.2	52.1	63.5	54.9	43.9	60.6	70.3	63.9	48.1									
Pressure 4' 2m							43.5		47.7									
Pressure 8' 2m							9.1											
Pressure -200°							45.7		38.6									
Pressure 200-290°							19.2		10.7									
Pressure 290-320°							4.4		4.2									
Pressure 320-460°							23.8		19.8									
Pressure >460°							5.9		25.2									
Pressure >290°							34.1		49.2									
Pressure 100°							48.0		48.5									
Pressure 200-290°							44.5		49.0									
Pressure 290-320°							72.5		45.5									
Pressure 0-200																		
Pressure 200-320°																		

Paraffin. 9.66

205° 210° 215° 220°

X=3.6  
 P<sub>100</sub>=1549  
 P<sub>320</sub>=1769

№ 752		Kator. №. F 171		R 31	Geminsh. alt. 7.3		Lier	Ofen № 9		Versuch № 658						
Datum	17.1.44	18.1.44	19.1.44	20.1.44	21.1.44	22.1.44	23.1.44	24.1.44								
Rele Lad	334	358	382	306	330	354	378	402								
Temp °C	220°	223°	228°	223°	225°	225°	226°	225°								
Druck atm	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0								
Drucksta n. Lichte u. L. Lichte	114   113	122   96	116   91	119   86	132   103	129   101	111   87	137   107								
Wahl % X	-	-	-	-	-	-	-	-								
gem sec	0.694	0.862	0.874	0.973	0.770	0.782	0.880	0.708								
Vol% CO <sub>2</sub>	6.2	16.3	6.0	19.1	6.0	18.5	6.0	18.3	6.0	18.4	6.3	19.6	6.4	19.5	6.3	20.5
C <sub>2</sub> H <sub>4</sub>	0.0	1.3	0.0	0.3	0.0	0.4	0.0	0.2	0.0	0.6	0.0	0.2	0.0	0.3	0.0	0.1
O <sub>2</sub>	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.3	0.0
CO	38.8	27.5	39.0	25.9	38.0	26.1	39.0	26.6	38.5	25.5	38.6	25.4	38.6	25.1	38.2	24.9
H <sub>2</sub>	49.4	46.5	48.5	46.8	49.0	47.2	48.3	47.3	48.8	46.4	48.5	46.1	48.3	47.1	49.6	45.8
F	88.2	74.0	87.5	72.7	87.6	73.3	87.3	73.9	87.3	71.9	87.1	71.5	86.9	72.2	87.1	71.7
CH <sub>4</sub>	0.2	0.7	0.3	0.8	0.2	0.7	0.3	0.9	0.3	1.1	0.2	0.7	0.2	0.8	0.0	1.0
CX	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00
Vol% N <sub>2</sub>	5.3	7.6	6.7	6.9	6.2	7.0	6.3	6.5	6.3	8.0	6.3	7.9	6.5	7.1	5.6	7.7
H <sub>2</sub> Feinsub %	15.2	21.9	15.3	20.3	17.7	20.2	17.9	18.4	17.8	23.1	17.9	20.9	18.3	20.8	16.2	22.9
CO-H <sub>2</sub> Umrechnung % U	41.8	28.5	28.6	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4
CO-H <sub>2</sub> Umrechnung % M	3.3	6.4	6.9	6.9	15.6	6.3	3.9	8.6	7.4							
100 X H <sub>2</sub>	0.87	0.49	0.48	0.18	0.69	0.66	0.41	0.87								
Wärme s/cm sec	74.5	48.6	45.3	27.1	62.5	62.2	44.4	73.8								
2. 200 <sup>th</sup> & 2/min				60.7				70.5								
Gas ° Helm				10.9												
- 200°				29.0				28.2								
200-290°				10.8				10.3								
290-320°				4.4				4.6								
320-460°				19.8				20.4								
> 460°				33.0				35.4								
Re > 290°				57.2				60.4								
100 % - 200°				22.0				24.0								
200-290°				20.5				22.0								
290-320°				20.0				27.5								
Abgabe ° n. Halte - 200°																
Gas ° 220-320°																

Temp. 225°



# Gasol ausbeute.

Versuch Nr. 658.

<b>Datum:</b>	vom	10.1.44	16.1.44
	bis	13.1.44	19.1.44
<b>Zeit:</b>	von	9 <sup>00</sup>	9 <sup>00</sup>
	bis	9 <sup>00</sup>	9 <sup>00</sup>
<b>Eingangsgas</b>		W.-Gas	W.-Gas
<b>Nm<sup>3</sup></b>		8,85	9,15
<b>Restgas N/l</b>		92,0	112,0
<b>Gasol l</b>			
<b>mit K. %</b>	<b>CO<sub>2</sub></b>	44,0	40,8
	<b>C<sub>3</sub>H<sub>8</sub></b>	28,2	29,7
	<b>C<sub>2</sub>H<sub>4</sub></b>	3,2	3,0
	<b>O<sub>2</sub></b>	0,2	0,4
	<b>CO</b>	1,8	5,4
	<b>H<sub>2</sub></b>	3,9	2,9
	<b>CH<sub>4</sub></b>	13,2	12,8
	<b>N<sub>2</sub></b>	5,5	5,0
	<b>C-Z.</b>	3,04	3,24
<b>entsprechen g/l</b>		0,879	0,889
<b>Ausbeute:</b>	<b>g Gasol</b>	80,9	99,5
	<b>g/Nm<sup>3</sup> Eingangsgas</b>	9,1	10,9

**Bemerkungen:**