Anlagenband zu Dissertation Joachim Hagberg
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## Tabelle 2

## Kokseigenschaften

### 1. BHT-Koks

| | | angelief. Koks | wasserfr. Koks | wasser-u. aschefr. Koks |
|---|---|---|---|---|
| **a) Kurzanalyse:** | | | | |
| Wasser (Trockenschrank) | % | 6,44 | - | - |
| Asche (775 °C) | % | 11,07 | 11,83 | - |
| Flüchtige Bestandteile | % | 4,16 | 4,45 | 5,04 |
| Fixer Kohlenstoff | % | 78,33 | 83,72 | 94,96 |
| Koksausbeute (Quarzt.) | % | 89,40 | 95,55 | - |
| Reinkohle | % | 82,49 | 88,17 | 100,00 |
| Koksbefund | | mattschwarz, pulverig | | |
| **b) Elementaranalyse:** | | | | |
| C . . . . . | % | 81,09 | 86,67 | 98,30 |
| H . . . . . | % | 0,22 | 0,24 | 0,27 |
| O, N (Differenz) . . . | % | 0,71 | 0,76 | 0,86 |
| verbrennl. S . . . . . | % | 0,47 | 0,50 | 0,57 |
| Asche (775 °C) . . . . . | % | 11,07 | 11,83 | - |
| Wasser (Trockenschrank) | % | 6,44 | - | - |
| **c) Schwefel:** | | | | |
| Sulfid-S . . . . . | % | 0,06 | 0,07 | - |
| Sulfat-S . . . . . | % | 0,17 | 0,18 | - |
| Pyrit-S(Powell-Parr). . | % | 0,03 | 0,03 | - |
| Org.geb. S (Diff.) . . | % | 0,75 | 0,80 | 0,91 |
| Ges. S . . . . . | % | 1,01 | 1,08 | - |
| Verbr. S . . . . . | % | 0,47 | 0,50 | 0,57 |
| Aschen-S (Diff.) . . . | % | 0,54 | 0,58 | - |
| **d) Ascheanalyse:** | | | | |
| $SiO_2$ . . . . . | % | 18,21 | | |
| $Al_2O_3$ . . . . . | % | 8,50 | | |
| CaO . . . . . | % | 18,95 | | |
| MgO . . . . . | % | 4,18 | | |
| MnO . . . . . | % | 0,24 | | |
| $Fe_2O_3$ . . . . . | % | 33,50 | ? | |
| $SO_3$ . . . . . | % | 6,54 | | |
| $P_2O_5$ . . . . . | % | ~~0,23~~ | | |
| **e) Spurenelemente: (spektrosk.)** | | | | |
| Ba . . . . . | % | 0,1 | | |
| Na . . . . . | % | 0,1 | | |
| Ti . . . . . | % | Sp | | |
| Cu . . . . . | % | 0,1 | | |
| Pb . . . . . | % | Sp | | |
| Cr . . . . . | % | - | | |
| Sr . . . . . | % | ~~1~~ | ? | |
| V . . . . . | % | Sp | | |
| Ga . . . . . | % | - | | |

nicht vorhanden: Zn, Sn, Cd, Mo, W, Ni, Co

Rechnerfehler

Tabelle 2

Kokseigenschaften

2. Westfälischer Koks

| | | angelief. Koks | wasserfr. Koks | wasser- u. aschefr. Koks |
|---|---|---|---|---|
| **a) Kurzanalyse:** | | | | |
| Wasser (Trockenschrank) | % | 0,75 | - | - |
| Asche (775 °C) | % | 11,49 | 11,58 | - |
| Flüchtige Bestandteile | % | 0,47 | 0,47 | 0,54 |
| Fixer Kohlenstoff | % | 87,29 | 87,95 | 99,46 |
| Koksausbeute (Quarzt.) | % | 98,78 | 99,53 | - |
| Reinkohle | | 87,76 | 88,42 | 100,00 |
| Koksbefund | | mattschwarz, pulverig | | |
| **b) Elementaranalyse:** | | | | |
| C . . . . . | % | 83,90 | 84,53 | 95,60 |
| H . . . . . | % | 0,35 | 0,35 | 0,40 |
| O, N (Differenz) . . . | % | 2,45 | 2,47 | 2,79 |
| verbrennl. S . . . . . | % | 1,06 | 1,07 | 1,21 |
| Asche (775 °C) . . . . . | % | 11,49 | 11,58 | - |
| Wasser (Trockenschrank) | % | 0,75 | - | - |
| **c) Schwefel:** | | | | |
| Sulfid-S . . . . . | % | 0,37 | 0,37 | - |
| Sulfat-S . . . . . | % | 0,04 | 0,04 | - |
| Pyrit-S (Powell-Parr) . | % | 0,01 | 0,01 | - |
| Org.geb. S . . . . . | % | 0,69 | 0,70 | 0,79 |
| Ges. S . . . . . | % | 1,11 | 1,12 | - |
| verbrennl. S . . . . . | % | 1,06 | 1,07 | 1,21 |
| Aschen-S (Diff.) . . . | % | 0,05 | 0,05 | - |
| **d) Ascheanalyse:** | | | | |
| $SiO_2$ . . . . . | % | 42,79 | | |
| $Al_2O_3$ . . . . . | % | 30,98 | | |
| CaO . . . . . | % | 4,81 | | |
| MgO . . . . . | % | 2,02 | | |
| MnO . . . . . | % | 0,15 | | |
| $Fe_2O_3$ . . . . . | % | 14,34 | | |
| $SO_3$ . . . . . | % | 1,79 | | |
| $P_2O_5$ . . . . . | % | 0,66 | | |
| **e) Spurenelemente: (spektrosk.)** | | | | |
| Ba . . . . . | % | 0,1 | | |
| Na . . . . . | % | 1 | | |
| Ti . . . . . | % | Sp | | |
| Cu . . . . . | % | 0,1 | | |
| Pb . . . . . | % | Sp | | |
| Cr . . . . . | % | 0,1 | | |
| Sr . . . . . | % | 1 ? | | |
| V . . . . . | % | 0,1 | | |
| Ga . . . . . | % | 0,1 | | |

nicht vorhanden: Zn, Sn, Cd, Mo, W, Ni, Co

Tabelle 2

Kokseigenschaften

3. Polnischer Koks (Chrobry)

| | | angelief. Koks | wasserfr. Koks | wasser-u. aschefr. Koks |
|---|---|---|---|---|
| a) Kurzanalyse: | | | | |
| Wasser (Trockenschrank) | % | 0,75 | - | - |
| Asche (775 °C) | % | 12,56 | 12,65 | - |
| Flüchtige Bestandteile | % | 0,63 | 0,64 | 0,73 |
| Fixer Kohlenstoff | % | 86,06 | 86,71 | 99,27 |
| Koksausbeute (Quarzt.) | % | 98,62 | 99,36 | - |
| Reinkohle | % | 86,69 | 87,35 | 100,00 |
| Koksbefund | | mattschwarz, pulverig | | |
| b) Elementaranalyse: | | | | |
| C . . . . . | % | 84,23 | 84,87 | 97,16 |
| H . . . . . | % | 0,24 | 0,24 | 0,28 |
| O, N (Differenz) . . . . | % | 1,39 | 1,41 | 1,62 |
| verbrennl. S (775 °C) . . | % | 0,83 | 0,83 | 0,94 |
| Asche (775 °C) . . . . | % | 12,56 | 12,65 | - |
| Wasser (Trockenschrank) | % | 0,75 | - | - |
| c) Schwefel: | | | | |
| Sulfid-S . . . . . | % | 0,23 | 0,23 | - |
| Sulfat-S . . . . . | % | 0,09 | 0,09 | - |
| Pyrit-S (Powell-Parr) . | % | 0,01 | 0,01 | - |
| Org.geb. S . . . . . | % | 0,60 | 0,61 | 0,70 |
| Ges. S . . . . . | % | 0,93 | 0,94 | - |
| verbrennl. S . . . . . | % | 0,83 | 0,83 | 0,94 |
| Aschen-S (Diff.) . . . . | % | 0,10 | 0,11 | - |
| d) Aschenanalyse: | | | | |
| $SiO_2$ . . . . . | % | 42,10 | | |
| $Al_2O_3$ . . . . . | % | 30,05 | | |
| CaO . . . . . | % | 5,39 | | |
| MgO . . . . . | % | 1,84 | | |
| MnO . . . . . | % | 0,07 | | |
| $Fe_2O_3$ . . . . . | % | 13,20 | | |
| $SO_3$ . . . . . | % | 3,85 | | |
| $P_2O_5$ . . . . . | % | 0,58 | | |
| e) Spurenelemente: (spektrosk.) | | | | |
| Ba . . . . . | % | 0,1 | | |
| Na . . . . . | % | 1 | | |
| Ti . . . . . | % | 0,1 | | |
| Cu . . . . . | % | 0,1 | | |
| Pb . . . . . | % | Sp | | |
| Cr . . . . . | % | 0,1 | | |
| Sr . . . . . | % | 1 | | |
| V . . . . . | % | 0,1 | | |
| Ga . . . . . | % | 0,01 | | |
| nicht vorhanden: Zn, Sn, Cd, Mo, W, Ni, Co | | | | |

Tabelle 2

Kokseigenschaften

4. Tschechischer Koks

| | | angelief. Koks | wasserfr. Koks | wasser-u. aschefr. Koks |
|---|---|---|---|---|
| **a) Kurzanalyse:** | | | | |
| Wasser (Trockenschrank) | % | 0,64 | - | - |
| Asche (775°C) | % | 14,70 | 14,80 | - |
| Flüchtige Bestandteile | % | 1,77 | 1.78 | 2,09 |
| Fixer Kohlenstoff | % | 82,89 | 83,42 | 97,91 |
| Koksausbeute (Quarzt.) | % | 97,59 | 98,22 | - |
| Reinkohle | % | 84,66 | 85,20 | 100,00 |
| Koksbefund | | mattschwarz, pulverig | | |
| **b) Elementaranalyse:** | | | | |
| C . . . . . | % | 82,47 | 83,00 | 97,42 |
| H . . . . . | % | 0,26 | 0,26 | 0,31 |
| O, N (Differenz) . . . | % | 1,23 | 1,24 | 1,45 |
| verbrennl. S . . . . . | % | 0,70 | 0,70 | 0,82 |
| Asche (775°C) . . . . | % | 14,70 | 14,80 | - |
| Wasser (Trockenschrank) | % | 0,64 | - | - |
| **c) Schwefel:** | | | | |
| Sulfid-S . . . . . | % | 0,07 | 0,07 | - |
| Sulfat-S . . . . . | % | 0,12 | 0,12 | - |
| Pyrit-S (Powell-Parr). | % | 0,03 | 0,03 | - |
| Org.geb.S(Diff.) . . . | % | 0,55 | 0,55 | 0,66 |
| Ges. S . . . . . | % | 0,77 | 0,77 | - |
| Verbr. S (775°C) . . . | % | 0,70 | 0,70 | 0,82 |
| Aschen-S (Diff.) . . . | % | 0,07 | 0,07 | - |
| **d) Ascheanalyse:** | | | | |
| $SiO_2$ . . . . . | % | 44,10 | | |
| $Al_2O_3$ . . . . . | % | 28,85 | | |
| CaO . . . . . | % | 7,16 | | |
| MgO . . . . . | % | 2,44 | | |
| MnO . . . . . | % | 0,09 | | |
| $Fe_2O_3$ . . . . . | % | 10,57 | | |
| $SO_3$ . . . . . | % | ~~2,94~~ ? | | |
| $P_2O_5$ . . . . . | % | 2,35 | | |
| **e) Spurenelemente: (spektrosk.)** | | | | |
| Ba . . . . . | % | 1 | | |
| Na . . . . . | % | 0,1 | | |
| Ti . . . . . | % | 0,1 | | |
| Cu . . . . . | % | 0,1 | | |
| Pb . . . . . | % | Sp | | |
| Cr . . . . . | % | 0,1 | | |
| Sr . . . . . | % | 2 | | |
| V . . . . . | % | 0,1 | | |
| Ga . . . . . | % | 0,01 | | |

nicht vorhanden: Zn, Sn, Cd, Mo, W, Ni, Co

## Tabelle 2

## Kokseigenschaften

### 5. Zwickauer Koks

| | | angellef. Koks | wasserfr. Koks | wasser-u. aschefr. Koks |
|---|---|---|---|---|
| **a) Kurzanalyse:** | | | | |
| Wasser (Trockenschrank) | % | 0,43 | - | - |
| Asche (775°C) | % | 16,73 | 16,80 | - |
| Flüchtige Bestandteile | % | 0,60 | 0,60 | 0,72 |
| Fixer Kohlenstoff | % | 82,24 | 82,60 | 99,28 |
| Koksausbeute (Quarzt.) | % | 98,97 | 99,40 | - |
| Reinkohle | % | 82,84 | 83,20 | 100,00 |
| Koksbefund | | mattschwarz, pulverig | | |
| **b) Elementaranalyse:** | | | | |
| C . . . . . | % | 80,17 | 80,52 | 96,77 |
| H . . . . . | % | 0,05 | 0,05 | 0,06 |
| O, N (Differenz) . . . | % | 0,63 | 0,63 | 0,77 |
| verbrennl. S (775°C) . | % | 1,99 | 2,00 | 2,40 |
| Asche (775°C) . . . . . | % | 16,73 | 16,80 | - |
| Wasser (Trockenschrank) | % | 0,43 | - | - |
| **c) Schwefel:** | | | | |
| Sulfid-S . . . . . | % | 1,05 | 1,06 | - |
| Sulfat-S . . . . . | % | 0,01 | 0,01 | - |
| Pyrit- S (Powell-Parr). | % | 0,02 | 0,02 | - |
| Org.geb.S . . . . . | % | 1,02 | 1,02 | 1,23 |
| Ges. S . . . . . | % | 2,10 | 2,11 | - |
| Verbr. S (775°C) . . . | % | 1,99 | 2,00 | 2,40 |
| Aschen-S (Diff.) . . . | % | 0,11 | 0,11 | - |
| **d) Ascheanalyse:** | | | | |
| $SiO_2$ . . . . . | % | 38,10 | | |
| $Al_2O_3$ . . . . . | % | 21,70 | | |
| CaO . . . . . | % | 4,97 | | |
| MgO . . . . . | % | 1,78 | | |
| MnO . . . . . | % | 0,09 | | |
| $Fe_2O_3$ . . . . . | % | 28,70 | | |
| $SO_3$ . . . . . | % | 1,87 | | |
| $P_2O_5$ . . . . . | % | 0,31 | | |
| **e) Spurenelemente: (spektrosk.)** | | | | |
| Ba . . . . . | % | 0,1 | | |
| Na . . . . . | % | 1 | | |
| Ti . . . . . | % | 0,1 | | |
| Cu . . . . . | % | 0,1 | | |
| Pb . . . . . | % | Sp | | |
| Cr . . . . . | % | 0,1 | | |
| Sr . . . . . | % | 1 | | |
| V . . . . . | % | Sp | | |
| Ga . . . . . | % | 0,01 | | |

Nicht vorhanden: Zn, Sn, Cd, Mo, W, Ni, Co

## Tabelle 3

## Kokseigenschaften

### 1. BHT-Koks

| | | angelief. Koks | wasserfr. Koks | wasser-u. aschefr. Koks |
|---|---|---|---|---|
| a) Heizwerte: | | | | |
| Verbrennungswärme $H_o$ | kcal/kg | 6592 | 7046 | 7991 |
| Heizwert $H_u$ | kcal/kg | 6543 | 7032 | 7976 |
| b) Zündpunkt | °C | 415 | | |
| c) Reaktionsfähigkeit (Koppers) | | 5,1 | | |
| d) Porenvolumen | % | 23,12 | | |
| e) Wichte | $g/cm^3$ | 1,765 | | |
| f) Raumgewicht | $g/cm^3$ | 1,375 | | |
| g) Druckfestigkeit | $kg/cm^2$ | 199,7 | | |
| h) Abriebfestigkeit | Frakt. | % | | |
| 25 U/min | + 45 | 93,9 | | |
| | + 30 | 98,1 | | |
| | + 10 | 99,0 | | |
| 100 U/min | + 45 | 81,2 | | |
| | + 30 | 91,8 | | |
| | + 10 | 95,6 | | |

Tabelle 3

Kokseigenschaften

2. Westfälischer Koks

| | | angelief. Koks | wasserfr. Koks | Wasser-u. aschefr. Koks |
|---|---|---|---|---|
| a) Heizwerte: | | | | |
| Verbrennungswärme $H_o$ | kcal/kg | 7016 | 7069 | 7995 |
| Heizwert $H_u$ | kcal/kg | 6993 | 7050 | 7973 |
| b) Zündpunkt | °C | 540 | | |
| c) Reaktionsfähigkeit (Koppers) | | 7,3 | | |
| d) Porenvolumen | % | 51,36 | | |
| e) Wichte | $g/cm^3$ | 1,990 | | |
| f) Raumgewicht | $g/cm^3$ | 0,952 | | |
| g) Druckfestigkeit | $kg/cm^2$ | 113,3 | | |
| h) Abriebfestigkeit | Frakt. | % | | |
| 25 U/min | + 45 | 98,5 | | |
| | + 30 | 98,5 | | |
| | + 10 | 98,6 | | |
| 100 U/min | + 45 | 93,6 | | |
| | + 30 | 97,3 | | |
| | + 10 | 97,8 | | |

## Tabelle 3

## Kokseigenschaften

### 3. Polnischer Koks

| | | angelief. Koks | wasserfr. Koks | wasser-u. aschefr. Koks |
|---|---|---|---|---|
| a) Heizwerte: | | | | |
| Verbrennungswärme $H_o$ | kcal/kg | 6980 | 7033 | 8051 |
| Heizwert $H_u$ | kcal/kg | 6963 | 7020 | 8037 |
| b) Zündpunkt | °C | 420 | | |
| c) Reaktionsfähigkeit (Koppers) | | 20,7 | | |
| d) Porenvolumen | % | 37,47/47,87/42,32 | | |
| e) Wichte | $g/cm^3$ | 1,692 | | |
| f) Raumgewicht | $g/cm^3$ | 1,058/0,882/0,976 | | |
| g) Druckfestigkeit | $kg/cm^2$ | 70,4 | | |
| h) Abriebfestigkeit | Frakt. | % | | |
| 25 U/min | + 45 | 92,2 | | |
| | + 30 | 96,1 | | |
| | + 10 | 98,1 | | |
| 100 U/min | + 45 | 73,2 | | |
| | + 30 | 88,1 | | |
| | + 10 | 95,6 | | |

Tabelle 3

Kokseigenschaften

4. Tschechischer Koks

| | | angelief. Koks | wasserfr. Koks | wasser-u. aschefr. Koks |
|---|---|---|---|---|
| a) Heizwerte: | | | | |
| Verbrennungswärme $H_o$ | kcal/kg | 6780 | 6824 | 8009 |
| Heizwert $H_u$ | kcal/kg | 6763 | 6811 | 7994 |
| b) Zündpunkt | °C | 510 | | |
| c) Reaktionsfähigkeit | (Koppers) | 8,9 | | |
| d) Porenvolumen | % | 51,17 | | |
| e) Wichte | $g/cm^3$ | 2,007 | | |
| f) Raumgewicht | $g/cm^3$ | 0,980 | | |
| g) Druckfestigkeit | $kg/cm^2$ | 96,0 | | |
| h) Abriebfestigkeit | Frakt. | % | | |
| 25 U/min | + 45 | 78,1 | | |
| | + 30 | 95,0 | | |
| | + 10 | 97,0 | | |
| 100 U/min | + 45 | 86,4 | | |
| | + 30 | 91,8 | | |
| | + 10 | 94,3 | | |

Tabelle 3

Kokseigenschaften

5. Zwickauer Koks

| | | angelief. Koks | wasserfr. Koks | wasser-u. aschefr. Koks |
|---|---|---|---|---|
| a) Heizwerte: | | | | |
| Verbrennungswerte $H_o$ | kcal/kg | 6653 | 6682 | 8031 |
| Heizwert $H_u$ | kcal/kg | 6647 | 6679 | 8028 |
| b) Zündpunkt | °C | 510 | | |
| c) Reaktionsfahigkeit (Koppers) | | 12,5 | | |
| d) Porenvolumen | % | 51,36 | | |
| e) Wichte | $g/cm^3$ | 1,990 | | |
| f) Raumgewicht | $g/cm^3$ | 0,968 | | |
| g) Druckfestigkeit | $kg/cm^2$ | 57,1 | | |
| h) Abriebfestigkeit | Frakt. | % | | |
| 25 U/min | + 45 | 65,9 | | |
| | + 30 | 94,4 | | |
| | + 10 | 98,8 | | |
| 100 U/min | + 45 | 42,4 | | |
| | + 30 | 79,9 | | |
| | + 10 | 96,8 | | |

## Tabelle 4

### Gewichtsverlust durch Reaktion mit Kohlensäure

| BHT | | | | W | | | | Chr | | | | CSR | | | | Z | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gew. g | Zeit min | Zeit min | Zeit min | Gew. g | Zeit min | Zeit min | Zeit min | Gew. g | Zeit min | Zeit min | Zeit min | Gew. g | Zeit min | Zeit min | Zeit min | Gew. g | Zeit min | Zeit min | Zeit min |
| 2 | - | - | - | 2 | 3,6 | - | 3,8 | 2 | 4,0 | 3,8 | 4,2 | 2 | 2,6 | 2,9 | - | 2 | - | - | 4,0 |
| 4 | - | - | - | 4 | 7,7 | 8,7 | 7,7 | 4 | 6,3 | 6,0 | 6,4 | 4 | 5,2 | 5,2 | 6,0 | 4 | - | 6,8 | 6,2 |
| 6 | 2,7 | 2,7 | 2,4 | 6 | 10,8 | 11,5 | 10,2 | 6 | 8,9 | 8,7 | 8,7 | 6 | 7,0 | 7,0 | 7,4 | 6 | 7,5 | 7,7 | 8,2 |
| 8 | 3,6 | 3,7 | 3,1 | 8 | 14,5 | 14,7 | 14,8 | 8 | 11,2 | 11,1 | 12,0 | 8 | 9,0 | 9,2 | 10,0 | 8 | 9,0 | 9,5 | 10,0 |
| 10 | 4,2 | 4,3 | 3,8 | 10 | 16,5 | 18,3 | 17,5 | 10 | 14,0 | 13,7 | 14,5 | 10 | 10,6 | 11,0 | 11,8 | 10 | 10,8 | 11,2 | 11,3 |
| 15 | 6,3 | 6,3 | 5,7 | 15 | 24,3 | 26,2 | 25,3 | 15 | 20,0 | 20,0 | 20,3 | 15 | 17,0 | 16,5 | 17,5 | 15 | 14,9 | 15,4 | 15,8 |
| 20 | 7,9 | 8,2 | 7,7 | 20 | 32,0 | 34,1 | 33,2 | 20 | 26,8 | 26,5 | 27,5 | 20 | 21,5 | 22,5 | 23,0 | 20 | 19,2 | 19,8 | 20,0 |
| 25 | 10,2 | 10,3 | 9,7 | 25 | 39,2 | 42,0 | 41,2 | 25 | 32,8 | 32,5 | 33,7 | 25 | 26,5 | 27,8 | 29,5 | 25 | 23,0 | 23,8 | 24,2 |
| 30 | 12,3 | 12,5 | 11,7 | 30 | 45,6 | 49,4 | 49,0 | 30 | 39,0 | 38,5 | 39,6 | 30 | 34,2 | 34,9 | 35,5 | 30 | 27,1 | 28,0 | 28,6 |
| 35 | 14,3 | 14,7 | 13,7 | 35 | 53,7 | 57,8 | 56,5 | 35 | 45,0 | 44,0 | 46,2 | 35 | 40,4 | 39,8 | 41,2 | 35 | 31,5 | 32,2 | 33,0 |
| 40 | 16,5 | 16,8 | 15,7 | 40 | 61,5 | 64,0 | 66,2 | 40 | 51,5 | 50,3 | 52,2 | 40 | 45,4 | 44,9 | 47,0 | 40 | 35,3 | 36,2 | 36,5 |
| 45 | 18,4 | 18,8 | 17,8 | | | | | 45 | 57,5 | 57,0 | 58,6 | 45 | 51,1 | 50,5 | 52,2 | 45 | 38,8 | 40,0 | 40,5 |
| 50 | 20,5 | 21,0 | 19,8 | | | | | 50 | 64,0 | 63,0 | 65,1 | 50 | 56,2 | 56,8 | 57,5 | 50 | 42,8 | 44,0 | 44,7 |
| 60 | 25,0 | 25,4 | 24,1 | | | | | | | | | 65 | 62,0 | 62,5 | 63,0 | 60 | 50,3 | 51,9 | 52,5 |
| 70 | 29,5 | 29,9 | 28,6 | | | | | | | | | | | | | 70 | 57,5 | 58,8 | 59,4 |
| 80 | 34,1 | 34,6 | 32,9 | | | | | | | | | | | | | 80 | 64,6 | 85,8 | 66,5 |
| 90 | 38,8 | 39,1 | 37,5 | | | | | | | | | | | | | | | | |
| 100 | 43,5 | 44,2 | 41,9 | | | | | | | | | | | | | | | | |
| 110 | 48,3 | 49,2 | 46,5 | | | | | | | | | | | | | | | | |
| 120 | 53,1 | 54,5 | 51,0 | | | | | | | | | | | | | | | | |
| 130 | 57,8 | 59,9 | 55,8 | | | | | | | | | | | | | | | | |
| 140 | 62,7 | 64,5 | 60,3 | | | | | | | | | | | | | | | | |

? 65,8 Schreibfehler?

Tabelle 5

Gewichtsverlust durch Reaktion mit Luft

| BHT | | | | W | | | | Chr | | | | CSR | | | | Z | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gew. g | Zeit min | Zeit min | Zeit min | Gew. g | Zeit min | Zeit min | Zeit min | Gew. g | Zeit min | Zeit min | Zeit min | Gew. g | Zeit min | Zeit min | Zeit min | Gew. g | Zeit min | Zeit min | Zeit min |
| 2 | 4,0 | - | - | 2 | 3,3 | 3,4 | 3,7 | 2 | 4,2 | 4,5 | 4,7 | 2 | 4,0 | 4,2 | 3,5 | 2 | 4,4 | 3,4 | 4,1 |
| 4 | 5,4 | 5,3 | 5,1 | 4 | 6,0 | 6,0 | 6,1 | 4 | 6,7 | 7,1 | - | 4 | - | 6,2 | 5,8 | 4 | 7,0 | 5,5 | 6,0 |
| 6 | 7,0 | 6,8 | 6,5 | 6 | 7,5 | 8,2 | 7,8 | 6 | 9,0 | 9,3 | 9,8 | 6 | 7,5 | 8,1 | 7,8 | 6 | 9,1 | 8,0 | 8,2 |
| 8 | 8,5 | - | - | 8 | 9,5 | 10,1 | 9,8 | 8 | 10,8 | 11,1 | 11,8 | 8 | 9,8 | 10,8 | 10,2 | 8 | 11,0 | - | 10,7 |
| 10 | 10,3 | 10,0 | 9,6 | 10 | 11,5 | 12,1 | 12,1 | 10 | 12,5 | 13,0 | 14,2 | 10 | 10,7 | 12,2 | 11,9 | 10 | 13,1 | 11,5 | 11,7 |
| 15 | 14,5 | 14,0 | 13,8 | 15 | 16,4 | 17,2 | 16,5 | 15 | 18,0 | 18,5 | 19,2 | 15 | 16,4 | 16,9 | 16,6 | 15 | 17,3 | 16,3 | 16,0 |
| 20 | 18,3 | 18,0 | 17,4 | 20 | 21,4 | 22,1 | 22,0 | 20 | 23,5 | 23,9 | 24,8 | 20 | 20,6 | 21,9 | 21,0 | 20 | 22,0 | 21,0 | 21,2 |
| 25 | 22,5 | 21,7 | 21,2 | 25 | 26,5 | 27,1 | 27,1 | 25 | 28,6 | 29,0 | 29,7 | 25 | 25,2 | 26,5 | 25,7 | 25 | 26,1 | 25,5 | 25,5 |
| 30 | 26,5 | 25,8 | 25,0 | 30 | 31,4 | 32,0 | 31,8 | 30 | 33,4 | 34,3 | 34,8 | 30 | 29,3 | 30,2 | 30,0 | 30 | 30,1 | 30,1 | 29,9 |
| 35 | 30,7 | 29,8 | 29,1 | 35 | 36,5 | 36,6 | 36,8 | 35 | 38,5 | 39,4 | 40,1 | 35 | 33,2 | 34,8 | 34,1 | 35 | 34,2 | 34,5 | 33,9 |
| 40 | 34,5 | 33,5 | 33,0 | 40 | 41,4 | 41,6 | 41,7 | 40 | 43,7 | 44,5 | 45,3 | 40 | 37,2 | 38,6 | 38,0 | 40 | 38,3 | 39,1 | 38,6 |
| 45 | 38,0 | 37,5 | 36,1 | 45 | 46,5 | 47,0 | 46,9 | 45 | 49,0 | 49,9 | 51,1 | 45 | 41,2 | 42,8 | 42,5 | 45 | 43,3 | 43,5 | 43,0 |
| 50 | 42,0 | 41,2 | 40,0 | 50 | 52,0 | 51,5 | 52,0 | 50 | 54,3 | 55,2 | 56,5 | 50 | 45,5 | 46,6 | 46,2 | 50 | 47,2 | 48,1 | 47,2 |
| 60 | 49,7 | 49,0 | 48,0 | 55 | 57,2 | 56,5 | 57,6 | 60 | 64,6 | 65,4 | 66,9 | 60 | 53,4 | 54,2 | 54,1 | 60 | 55,1 | 57,1 | 56,0 |
| 70 | 57,5 | 56,2 | 56,0 | 60 | 62,3 | 61,4 | 61,8 | | | | | 70 | 60,0 | 62,2 | 61,8 | 70 | 63,1 | 64,6 | 64,5 |
| 80 | 65,5 | 64,2 | 63,7 | | | | | | | | | | | | | | | | |

Tabelle 6

-Koks

Kohlensäure

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| rsuchsbedingungen | | Ausgangsdaten | | Meßwerte | | Errechnete Größen | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_i$ g | Vol. $V_i$ cm³ | $G_o-G_i$ g | $G_o-G_i$ % | Gew. $G_s$ g | $G_s-G_i$ g | $G_s-G_i$ % |
| 700 | 60 | 6,0795 | 1,158 | 5,6479 | 5,08 | 0,4316 | 7,1 | 5,8771 | 0,2292 | 3,9 |
| " | " | 6,1530 | 1,172 | 5,5608 | 5,14 | 0,4922 | 8,0 | 5,9285 | 0,3677 | 6,1 |
| " | " | 6,1635 | 1,174 | 5,6334 | 5,05 | 0,5301 | 8,6 | 5,9298 | 0,2964 | 5,0 |
| " | 120 | 6,0690 | 1,156 | 5,5046 | 5,21 | 0,5644 | 9,3 | 6,0225 | 0,3891 | 9,6 |
| " | " | 6,2213 | 1,185 | 5,5245 | 5,04 | 0,6968 | 11,2 | 5,9724 | 0,4479 | 7,9 |
| " | " | 6,1373 | 1,169 | 5,4622 | 5,03 | 0,6751 | 11,0 | 5,8796 | 0,4174 | 7,1 |
| " | 180 | 6,0428 | 1,151 | 4,9672 | 4,82 | 1,0756 | 17,8 | 5,5499 | 0,5827 | 10,5 |
| " | " | 5,9903 | 1,141 | 5,0858 | 5,07 | 0,9045 | 15,1 | 5,7793 | 0,6935 | 12,0 |
| " | " | 6,1950 | 1,180 | 5,1059 | 4,80 | 1,0891 | 17,9 | 5,6606 | 0,5547 | 9,8 |
| 900 | 30 | 6,2160 | 1,184 | 3,9596 | 3,90 | 2,2564 | 36,3 | 4,6149 | 0,6553 | 14,2 |
| " | " | 6,1320 | 1,168 | 3,7957 | 3,91 | 2,3363 | 38,1 | 4,5621 | 0,7664 | 16,8 |
| " | " | 6,3053 | 1,201 | 4,1048 | 3,97 | 2,2005 | 34,9 | 4,7674 | 0,6626 | 13,9 |
| " | 60 | 6,0113 | 1,145 | 2,1040 | 2,72 | 3,9073 | 65,0 | 3,1124 | 1,0084 | 32,4 |
| " | " | 6,0795 | 1,158 | 2,0610 | 2,70 | 4,0185 | 66,1 | 3,1224 | 1,0614 | 34,0 |
| " | " | 6,1530 | 1,172 | 2,2705 | 2,78 | 3,8825 | 63,1 | 3,2528 | 0,9823 | 30,2 |
| " | 90 | 6,1320 | 1,168 | 0,8891 | 1,27 | 5,2429 | 85,5 | 1,4318 | 0,5927 | 40,0 |
| " | " | 6,1268 | 1,167 | 0,9823 | 1,34 | 5,2445 | 85,6 | 1,5816 | 0,6795 | 43,5 |
| " | " | 6,1163 | 1,165 | 1,0092 | 1,42 | 5,1071 | 83,5 | 1,6517 | 0,6425 | 38,9 |
| 1100 | 20 | 6,3525 | 1,210 | 2,9857 | 2,77 | 3,3668 | 53,0 | 3,3547 | 0,3690 | 11,0 |
| " | " | 6,0270 | 1,148 | 2,9051 | 2,91 | 3,1219 | 51,8 | 3,3391 | 0,4340 | 13,0 |
| " | " | 6,0165 | 1,146 | 2,8819 | 2,80 | 3,1346 | 52,1 | 3,2092 | 0,3274 | 10,2 |
| " | 30 | 6,0848 | 1,159 | 1,7828 | 1,81 | 4,3020 | 70,7 | 2,0974 | 0,3146 | 15,0 |
| " | " | 6,1793 | 1,177 | 2,0515 | 2,01 | 4,1278 | 66,8 | 2,3716 | 0,3201 | 17,5 |
| " | " | 6,3000 | 1,200 | 1,9553 | 1,92 | 4,3407 | 68,9 | 2,3075 | 0,3484 | 15,1 |
| " | 40 | 6,1425 | 1,170 | 1,1548 | 1,15 | 4,9877 | 81,2 | 1,3427 | 0,1879 | 14,0 |
| " | " | 6,0533 | 1,153 | 1,2712 | 1,35 | 4,7821 | 79,0 | 1,5540 | 0,2828 | 18,2 |
| " | " | 6,0427 | 1,151 | 0,5982 | 0,65 | 5,4445 | 90,1 | 0,7468 | 0,1486 | 19,9 |
| 1300 | 10 | 6,1425 | 1,170 | 3,5135 | 3,26 | 2,6290 | 42,8 | 3,8190 | 0,3055 | 8,0 |
| " | " | 5,9640 | 1,136 | 3,3876 | 3,20 | 2,5764 | 43,2 | 3,6386 | 0,2510 | 6,9 |
| " | " | 6,1478 | 1,171 | 3,5043 | 3,27 | 2,6435 | 43,0 | 3,8298 | 0,3255 | 8,5 |
| " | 20 | 6,0743 | 1,157 | 1,9741 | 1,91 | 4,1002 | 67,5 | 2,2156 | 0,2415 | 10,9 |
| " | " | 6,0375 | 1,150 | 2,0226 | 1,99 | 4,0149 | 66,5 | 2,2751 | 0,2525 | 11,1 |
| " | " | 5,7120 | 1,088 | 1,9249 | 2,03 | 3,7871 | 66,3 | 2,2099 | 0,2850 | 12,9 |
| " | 30 | 6,2055 | 1,182 | 1,0549 | 1,01 | 5,1506 | 83,0 | 1,1885 | 0,1438 | 12,0 |
| " | " | 6,2475 | 1,190 | 1,0746 | 1,04 | 5,1729 | 82,8 | 1,2365 | 0,1619 | 13,1 |
| " | 40 | 6,0270 | 1,148 | 0,2291 | 0,22 | 5,7979 | 96,2 | 0,2562 | 0,0271 | 10,6 |
| 1500 | 10 | 6,1215 | 1,166 | 2,9873 | 2,82 | 3,1342 | 51,2 | 3,2027 | 0,2954 | 9,0 |
| " | " | 6,1688 | 1,175 | 2,8932 | 2,68 | 3,2756 | 53,1 | 3,1516 | 0,2584 | 8,2 |
| " | " | 6,0558 | 1,154 | 2,9081 | 2,83 | 3,1504 | 52,0 | 3,2712 | 0,3631 | 11,1 |
| " | 15 | 6,2895 | 1,198 | 2,3145 | 2,25 | 3,9750 | 63,2 | 2,6664 | 0,3519 | 13,2 |
| " | " | 6,0638 | 1,155 | 2,0607 | 2,01 | 4,0031 | 65,8 | 2,3232 | 0,2625 | 11,3 |
| " | " | 6,2803 | 1,181 | 2,1143 | 2,06 | 4,0860 | 65,9 | 2,4274 | 0,3131 | 12,9 |
| " | 30 | 6,3945 | 1,218 | 0,2877 | 0,28 | 6,1068 | 95,5 | 0,3381 | 0,0504 | 14,9 |
| " | " | 6,1373 | 1,169 | 0,4173 | 0,42 | 5,7200 | 93,2 | 0,4909 | 0,0736 | 15,0 |
| " | " | 5,7803 | 1,101 | 0,3468 | 0,36 | 5,4335 | 94,0 | 0,4013 | 0,0545 | 15,6 |
| 1700 | 5 | 6,2895 | 1,198 | 3,7108 | | 2,5787 | 41,0 | | | |
| " | " | 6,2790 | 1,195 | 3,7800 | | 2,4990 | 39,8 | | | |
| " | 10 | 6,1845 | 1,178 | 2,5356 | | 3,6489 | 59,0 | | | |
| " | " | 6,0585 | 1,154 | 2,3446 | | 3,7139 | 61,3 | | | |
| " | 15 | 6,1688 | 1,175 | 1,4559 | | 4,7129 | 76,4 | | | |

+) Bg.i. Trockenzustand

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Koks

Tabelle 6

L u f t

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| rsuchsbedingungen | | Ausgangsdaten | | Meßwerte | | Errechnete Größen | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_i$ g | Vol. $V_i$ cm³ | $G_o-G_i$ g | $G_o-G_i$ % | Gew. $G_s$ g | $G_s-G_i$ g | $G_s-G_i$ % |
| 700 | 30 | 6,0637 | 1,155 | 4,0687 | 4,12 | 1,9950 | 32,9 | 4,7597 | 0,6900 | 14,5 |
| " | " | 6,1215 | 1,166 | 4,2177 | 4,20 | 1,9038 | 31,1 | 4,8986 | 0,6809 | 13,9 |
| " | " | 6,2895 | 1,198 | 4,2077 | 4,14 | 2,0818 | 33,1 | 4,9619 | 0,7542 | 15,2 |
| " | 60 | 6,0585 | 1,194 | 2,6052 | 3,01 | 3,4533 | 57,0 | 3,4782 | 0,8730 | 25,1 |
| " | " | 6,1688 | 1,175 | 2,6217 | 2,97 | 3,5471 | 57,5 | 3,4909 | 0,8692 | 25,9 |
| " | " | 6,2003 | 1,181 | 2,7458 | 3,04 | 3,4545 | 56,0 | 3,5846 | 0,8388 | 23,4 |
| " | 90 | 5,7803 | 1,101 | 1,5029 | 1,43 | 4,2774 | 74,0 | 2,1470 | 0,6441 | 30,0 |
| " | " | 6,0270 | 1,148 | 1,5007 | 1,90 | 4,5263 | 75,1 | 2,1844 | 0,6837 | 31,3 |
| " | " | 6,1373 | 1,169 | 1,5343 | 1,95 | 4,6030 | 75,0 | 2,2764 | 0,7421 | 32,6 |
| 900 | 30 | 6,3893 | 1,217 | 3,7122 | 3,26 | 2,6771 | 41,9 | 3,9703 | 0,2581 | 6,5 |
| " | " | 6,2475 | 1,190 | 3,4861 | 3,18 | 2,7614 | 44,2 | 3,7892 | 0,3031 | 8,0 |
| " | " | 6,2055 | 1,182 | 3,5061 | 3,13 | 2,6994 | 43,5 | 3,6945 | 0,1884 | 5,1 |
| " | 60 | 6,1425 | 1,170 | 1,7507 | 1,88 | 4,3918 | 71,5 | 2,1994 | 0,4487 | 20,4 |
| " | " | 5,9640 | 1,136 | 1,5029 | 1,69 | 4,4611 | 74,8 | 1,9243 | 0,4214 | 21,9 |
| " | " | 6,0375 | 1,150 | 1,6422 | 1,83 | 4,3953 | 72,8 | 2,1081 | 0,4659 | 22,1 |
| " | 90 | 5,7120 | 1,088 | 0,3941 | 0,61 | 5,3179 | 93,1 | 0,6901 | 0,2960 | 42,9 |
| " | " | 6,0690 | 1,156 | 0,1821 | 0,28 | 5,8869 | 97,0 | 0,5184 | 0,1363 | 42,8 |
| " | " | 6,1425 | 1,170 | 0,2580 | 0,35 | 5,8845 | 95,8 | 0,4038 | 0,1458 | 36,1 |
| 1100 | 20 | 6,0480 | 1,152 | 3,8042 | 3,56 | 2,2438 | 37,1 | 4,0994 | 0,2581 | 6,5 |
| " | " | 6,3578 | 1,211 | 3,9100 | 3,43 | 2,4478 | 38,5 | 4,1596 | 0,3031 | 8,0 |
| " | " | 6,0218 | 1,147 | 3,8540 | 3,65 | 2,1678 | 36,0 | 4,1846 | 0,1884 | 5,1 |
| " | 30 | 6,0165 | 1,146 | 2,7195 | 2,73 | 3,2970 | 54,8 | 3,1294 | 0,4485 | 20,4 |
| " | " | 6,0533 | 1,153 | 2,7845 | 2,79 | 3,2688 | 54,0 | 3,2191 | 0,4214 | 21,9 |
| " | " | 6,1425 | 1,170 | 3,0283 | 3,15 | 3,1142 | 50,7 | 3,6886 | 0,4659 | 22,1 |
| " | 40 | 6,3000 | 1,200 | 2,1483 | 2,18 | 4,1517 | 65,9 | 2,5199 | 0,2960 | 42,9 |
| " | " | 6,0953 | 1,161 | 1,6895 | 2,26 | 4,2058 | 69,0 | 2,6279 | 0,1363 | 42,8 |
| " | 60 | 6,1688 | 1,175 | 0,6724 | 0,80 | 5,4964 | 89,1 | 0,9365 | 0,1458 | 36,1 |
| 1300 | 10 | 6,2948 | 1,199 | 4,5770 | 4,26 | 1,6178 | 25,7 | 5,1115 | 0,4345 | 8,5 |
| " | " | 6,2843 | 1,197 | 4,6001 | 4,22 | 1,6842 | 26,8 | 5,0551 | 0,4550 | 9,0 |
| " | " | 6,1688 | 1,175 | 4,6451 | 4,47 | 1,5237 | 24,7 | 5,2487 | 0,6035 | 11,5 |
| " | 20 | 6,1845 | 1,178 | 3,5870 | 3,46 | 2,5975 | 42,0 | 4,0808 | 0,4938 | 12,1 |
| " | " | 6,0795 | 1,158 | 3,4775 | 3,50 | 2,6020 | 42,8 | 4,0530 | 0,5755 | 14,2 |
| " | " | 6,0638 | 1,155 | 3,3838 | 3,37 | 2,6802 | 44,2 | 3,8892 | 0,5056 | 13,0 |
| " | 40 | 6,1478 | 1,171 | 1,6599 | 1,72 | 4,4879 | 73,0 | 2,0120 | 0,3521 | 17,5 |
| " | " | 6,1425 | 1,170 | 1,5663 | 1,64 | 4,5762 | 74,5 | 1,9218 | 0,3555 | 18,5 |
| " | " | 6,0900 | 1,160 | 1,6322 | 1,72 | 4,4578 | 73,2 | 1,9929 | 0,3607 | 18,1 |
| 1500 | 5 | 6,2213 | 1,185 | 5,0766 | 4,61 | 1,1447 | 18,4 | 5,4587 | 0,3821 | 7,0 |
| " | " | 6,1950 | 1,180 | 4,9002 | 4,41 | 1,2948 | 20,9 | 5,2074 | 0,3072 | 5,9 |
| " | " | 6,1373 | 1,169 | 4,9221 | 4,35 | 1,2153 | 19,8 | 5,0848 | 0,1627 | 3,2 |
| " | 20 | 5,9903 | 1,141 | 2,9712 | 2,75 | 3,0191 | 50,4 | 3,1408 | 0,1696 | 5,4 |
| " | " | 6,0480 | 1,152 | 3,0361 | 2,83 | 3,0119 | 49,8 | 3,2611 | 0,2250 | 6,9 |
| " | " | 6,2107 | 1,183 | 3,0495 | 2,75 | 3,1612 | 50,9 | 3,2973 | 0,1901 | 6,1 |
| " | 30 | 6,1320 | 1,168 | 1,9868 | 1,85 | 4,1452 | 67,6 | 2,1419 | 0,1751 | 8,1 |
| " | " | 6,3000 | 1,200 | 2,2050 | 2,02 | 4,0950 | 65,0 | 2,4204 | 0,2154 | 8,9 |
| " | " | 6,0218 | 1,147 | 2,0354 | 1,97 | 3,9864 | 66,2 | 2,2590 | 0,2236 | 9,9 |
| 1700 | 5 | 5,0743 | 1,157 | 4,7987 | | 1,2756 | 21,0 | | | |
| " | " | 6,1530 | 1,172 | 4,7871 | | 1,3659 | 22,2 | | | |
| " | 10 | 6,1163 | 1,165 | 4,0306 | | 2,0857 | 34,1 | | | |
| " | " | 5,1268 | 1,167 | 4,0070 | | 2,1198 | 34,6 | | | |
| " | 15 | 6,1320 | 1,168 | 3,2500 | | 2,8820 | 47,0 | | | |

+) Bg.i. Trockenzustand

Tabelle 6

-Koks

Gichtgas

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Versuchsbedingungen | | Ausgangsdaten | | Meßwerte | | Errechnete Größen | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_i$ g | Vol. $V_i$ cm³ | $G_o-G_i$ g | $G_o-G_i$ % | Gew.-$G_s$ g | $G_s-G_i$ g | $G_s-G_i$ % |
| 900 | 60 | 6,2475 | 1,190 | 4,9043 | 4,49 | 1,3432 | 21,5 | 5,3424 | 0,4381 | 8,2 |
| " | " | 6,1057 | 1,183 | 4,7014 | 4,55 | 1,4043 | 23,0 | 5,2884 | 0,5870 | 12,1 |
| " | " | 6,2423 | 1,189 | 4,8628 | 4,54 | 1,3795 | 22,1 | 5,3971 | 0,5343 | 9,9 |
| " | 90 | 6,1530 | 1,172 | 4,2456 | 4,23 | 1,9074 | 31,1 | 4,9540 | 0,7084 | 14,3 |
| " | " | 5,9535 | 1,134 | 4,0722 | 4,18 | 1,8813 | 31,6 | 4,7406 | 0,6684 | 14,1 |
| " | " | 6,1373 | 1,169 | 4,2531 | 4,18 | 1,8842 | 30,7 | 4,8886 | 0,6355 | 13,0 |
| " | 120 | 6,3000 | 1,200 | 3,7737 | 3,67 | 2,5263 | 40,1 | 4,4137 | 0,6400 | 14,5 |
| " | " | 6,0637 | 1,155 | 3,6564 | 3,77 | 2,4073 | 39,7 | 4,3529 | 0,6965 | 16,0 |
| " | " | 6,1478 | 1,171 | 3,7133 | 3,77 | 2,4345 | 39,6 | 4,4153 | 0,7020 | 15,9 |
| 1100 | 30 | 6,2055 | 1,182 | 5,2064 | 4,75 | 0,9911 | 16,1 | 5,5103 | 0,4039 | 7,2 |
| " | " | 6,0060 | 1,144 | 4,9730 | 4,78 | 1,0330 | 17,2 | 5,4648 | 0,4918 | 9,0 |
| " | " | 6,0480 | 1,152 | 5,0198 | 4,75 | 1,0282 | 17,0 | 5,4742 | 0,4544 | 8,3 |
| " | 90 | 6,0900 | 1,160 | 3,7149 | 3,78 | 2,3751 | 39,0 | 4,3808 | 0,6659 | 15,2 |
| " | " | 6,1688 | 1,175 | 3,2754 | 3,86 | 2,3934 | 38,8 | 4,5377 | 0,7623 | 16,8 |
| " | " | 6,0900 | 1,160 | 3,6540 | 3,82 | 2,4360 | 40,0 | 4,4291 | 0,7751 | 17,5 |
| " | 120 | 6,0795 | 1,158 | 3,3070 | 3,61 | 2,7725 | 45,6 | 4,1861 | 0,8791 | 21,0 |
| " | " | 6,2948 | 1,199 | 3,3361 | 3,50 | 2,9586 | 47,0 | 4,1965 | 0,8603 | 20,5 |
| " | " | 6,1163 | 1,165 | 3,3028 | 3,53 | 2,8135 | 46,0 | 4,1182 | 0,8154 | 19,8 |
| 1300 | 30 | 5,9695 | 1,137 | 4,7885 | 4,64 | 1,1810 | 20,1 | 5,2793 | 0,4910 | 9,3 |
| " | " | 6,1635 | 1,174 | 5,0134 | 4,63 | 1,1501 | 18,6 | 5,4316 | 0,4182 | 7,7 |
| " | " | 5,9850 | 1,140 | 4,8240 | 4,62 | 1,1610 | 19,4 | 5,2664 | 0,4424 | 8,4 |
| " | 40 | 6,1688 | 1,175 | 4,7376 | 4,48 | 1,4312 | 23,2 | 5,2582 | 0,5206 | 8,9 |
| " | " | 6,3000 | 1,200 | 4,8510 | 4,54 | 1,4490 | 23,0 | 5,4506 | 0,5996 | 11,0 |
| " | " | 6,0638 | 1,155 | 4,5085 | 4,46 | 1,4553 | 24,0 | 5,1492 | 0,5407 | 10,5 |
| " | 60 | 6,1163 | 1,165 | 4,2080 | 4,05 | 1,9083 | 31,2 | 4,7228 | 0,5148 | 11,9 |
| " | " | 5,9640 | 1,136 | 4,1450 | 4,21 | 1,8190 | 30,5 | 4,7864 | 0,6414 | 13,4 |
| " | 90 | 6,0270 | 1,148 | 3,4294 | | 2,5976 | 43,1 | | | |
| 1500 | 10 | 6,3578 | 1,211 | 5,5440 | | 0,8138 | 12,8 | | | |
| " | " | 5,9535 | 1,134 | 5,1676 | | 0,7859 | 13,2 | | | |
| " | 20 | 6,3525 | 1,210 | 5,2790 | | 1,0735 | 16,9 | | | |
| " | " | 6,0008 | 1,143 | 4,9207 | | 1,0801 | 18,0 | | | |
| " | 30 | 6,0743 | 1,157 | 4,7926 | | 1,2817 | 21,1 | | | |
| " | " | 6,0795 | 1,158 | 4,6934 | | 1,3861 | 22,8 | | | |
| 1700 | 5 | 6,1478 | 1,171 | 5,4039 | | 0,7439 | 12,1 | | | |
| " | " | 6,1268 | 1,187 | 5,3671 | | 0,7597 | 12,4 | | | |
| " | 10 | 6,1005 | 1,162 | 5,2281 | | 0,8724 | 14,3 | | | |
| " | 15 | 6,2895 | 1,198 | 5,3021 | | 0,9874 | 15,7 | | | |

+) Bg.1. Trockenzustand

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| ersuchs |
| Temp °C |
| 900 " " " " " " " |
| 1100 " " " " " " " " |
| 1300 " " " " " " " " |
| 1500 " " " " " " " " |
| 1700 " " " |

Tabelle 7

falischer Koks — Kohlensäure

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| rsuchsbedingungen | | Ausgangsdaten | | Meßwerte | | Errechnete Größen | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_1$ g | Vol. $V_1$ cm³ | $G_o-G_1$ g | $G_o-G_1$ % | Gew.-$G_s$ g | $G_s-G_1$ g | $G_s-G_1$ % |
| 900 | 60 | 4,7754 | 0,9096 | 4,6847 | 5,24 | 0,0907 | 1,9 | 4,7706 | 0,0859 | 1,8 |
| " | " | 4,7119 | 0,8975 | 4,6224 | 5,27 | 0,0895 | 1,9 | 4,7361 | 0,1137 | 2,4 |
| " | " | 4,7234 | 0,8997 | 4,6195 | 5,28 | 0,1039 | 2,2 | 4,7575 | 0,1380 | 2,9 |
| " | 90 | 4,7339 | 0,9017 | 4,6440 | 5,29 | 0,0899 | 1,9 | 4,7729 | 0,1289 | 2,7 |
| " | " | 4,7838 | 0,9112 | 4,6355 | 5,22 | 0,1483 | 3,1 | 4,7592 | 0,1237 | 2,6 |
| " | " | 4,7313 | 0,9012 | 4,6083 | 5,42 | 0,1230 | 2,6 | 4,8920 | 0,2837 | 5,8 |
| " | 120 | 4,7261 | 0,9002 | 4,6221 | 5,39 | 0,1040 | 2,2 | 4,8551 | 0,2330 | 4,8 |
| " | " | 4,7229 | 0,8996 | 4,5907 | 5,36 | 0,1322 | 2,8 | 4,8222 | 0,2315 | 4,8 |
| " | " | 4,7355 | 0,9020 | 4,5792 | 5,35 | 0,1563 | 3,3 | 4,8253 | 0,2461 | 5,1 |
| 1100 | 40 | 4,7203 | 0,8991 | 3,5303 | 5,16 | 1,1900 | 25,2 | 4,6390 | 1,1087 | 23,9 |
| " | " | 4,7307 | 0,9011 | 3,4534 | 5,10 | 1,2773 | 27,0 | 4,5984 | 1,1451 | 24,9 |
| " | " | 4,7303 | 0,9010 | 3,5004 | 5,21 | 1,2299 | 25,0 | 4,6922 | 1,1918 | 25,4 |
| " | 60 | 4,7229 | 0,8996 | 3,0604 | 5,00 | 1,6625 | 35,2 | 4,4940 | 1,4336 | 31,9 |
| " | " | 4,7271 | 0,9004 | 2,9544 | 4,93 | 1,7727 | 37,5 | 4,4360 | 1,4816 | 33,4 |
| " | " | 4,7402 | 0,9029 | 3,0100 | 4,94 | 1,7302 | 36,5 | 4,4593 | 1,4493 | 32,5 |
| " | 90 | 4,7444 | 0,9037 | 2,4671 | 5,10 | 2,2773 | 48,0 | 4,3114 | 1,1443 | 46,5 |
| " | " | 4,7329 | 0,9015 | 2,3806 | 4,64 | 2,3523 | 49,7 | 4,1838 | 1,8032 | 43,1 |
| " | " | 4,7256 | 0,9003 | 2,2371 | 4,63 | 2,4295 | 51,4 | 4,1590 | 1,8719 | 44,9 |
| 1300 | 10 | 4,6725 | 0,8900 | 3,3969 | 4,71 | 1,2756 | 27,3 | 4,1937 | 0,7968 | 19,0 |
| " | " | 4,7366 | 0,9022 | 3,3819 | 4,75 | 1,3547 | 28,6 | 4,2863 | 0,9044 | 21,1 |
| " | " | 4,7896 | 0,9123 | 3,5443 | 4,85 | 1,2453 | 26,0 | 4,4248 | 0,8805 | 19,9 |
| " | 20 | 4,7297 | 0,9009 | 2,5588 | 4,36 | 2,1709 | 45,9 | 3,9326 | 1,3718 | 34,9 |
| " | " | 4,7066 | 0,8965 | 2,4474 | 4,26 | 2,2592 | 48,0 | 3,8181 | 1,3707 | 35,9 |
| " | " | 4,7359 | 0,9017 | 2,5100 | 4,33 | 2,2259 | 47,0 | 3,8036 | 1,3936 | 35,7 |
| " | 30 | 4,7245 | 0,8999 | 1,7197 | 3,24 | 3,0048 | 63,6 | 2,9147 | 1,1950 | 41,0 |
| " | " | 4,7266 | 0,9003 | 1,7016 | 3,21 | 3,0250 | 64,0 | 2,8890 | 1,1874 | 43,1 |
| " | 50 | 4,7224 | 0,8995 | 2,9750 | 7,66 | 4,4249 | 93,7 | 6,8886 | 3,9110 | 56,8 |
| 1500 | 5 | 4,7345 | 0,9018 | 3,2575 | 4,45 | 1,4772 | 31,2 | 4,0164 | 0,7591 | 18,9 |
| " | " | 4,7518 | 0,9051 | 3,3120 | 4,53 | 1,4398 | 30,3 | 4,0490 | 0,7370 | 19,2 |
| " | " | 4,7098 | 0,8971 | 3,1791 | 4,58 | 1,5307 | 32,5 | 4,1074 | 0,9283 | 22,6 |
| " | 10 | 4,7307 | 0,9011 | 2,1998 | 3,15 | 2,5309 | 53,5 | 2,8421 | 0,6423 | 26,2 |
| " | " | 4,7355 | 0,9020 | 2,0789 | 3,15 | 2,6566 | 56,1 | 2,8439 | 0,7650 | 26,9 |
| " | " | 4,7434 | 0,9035 | 2,1440 | 3,29 | 2,5994 | 54,8 | 2,9778 | 0,8338 | 28,0 |
| " | 20 | 4,7213 | 0,8993 | 0,0990 | 0,25 | 4,6223 | 97,9 | 0,2286 | 0,1296 | 56,7 |
| " | " | 4,7786 | 0,9102 | 0,2819 | 0,74 | 4,4967 | 94,1 | 0,6712 | 0,3893 | 58,0 |
| " | " | 4,7303 | 0,9010 | 0,2129 | 0,59 | 4,5174 | 95,5 | 0,5536 | 0,3207 | 60,1 |
| 1700 | 5 | 4,7045 | 0,8961 | 2,0512 | | 2,6533 | 56,4 | | | |
| " | " | 4,7313 | 0,9012 | 1,9398 | | 2,7915 | 59,0 | | | |
| " | " | 4,7329 | 0,9015 | 1,9831 | | 2,7498 | 58,1 | | | |
| " | 10 | 4,7103 | 0,8972 | 0,2025 | | 4,5078 | 95,7 | | | |
| " | " | 4,7329 | 0,9015 | 0,3596 | | 4,3732 | 92,4 | | | |

+) kg.i. Trockenzustand

| Tische | I | Buchsbe | Temp. °C |
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| | | | 1700 |

Tabelle 7

Kölnischer Koks

L u f t

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Versuchsbedingungen | | Ausgangsdaten | | Meßwerte | | Errechnete Größen | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_i$ g | Vol. $V_i$ cm³ | $G_o-G_i$ g | $G_o-G_i$ % | Gew. $G_s$ g | $G_s-G_i$ g | $G_s-G_i$ % |
| 900 | 20 | 4,7224 | 0,8995 | 3,4851 | 3,95 | 1,2373 | 26,2 | 3,2590 | 0,0708 | 2,1 |
| " | " | 4,3725 | 0,8900 | 3,3221 | 3,84 | 1,3504 | 28,9 | 3,2498 | 0,1027 | 3,0 |
| " | " | 4,7571 | 0,8923 | 3,4439 | 3,85 | 1,2932 | 27,3 | 3,4752 | 0,0313 | 0,9 |
| " | 40 | 4,7276 | 0,8905 | 2,2172 | 2,51 | 2,5104 | 53,1 | 2,3537 | 0,1365 | 5,8 |
| " | " | 4,7261 | 0,8902 | 2,1173 | 2,38 | 2,6088 | 55,2 | 2,1191 | 0,2018 | 8,7 |
| " | " | 4,7087 | 0,8869 | 2,0671 | 2,32 | 2,6416 | 56,1 | 2,2591 | 0,1920 | 8,5 |
| " | 60 | 4,7339 | 0,8917 | 0,8521 | 1,03 | 3,8818 | 82,0 | 0,9262 | 0,0741 | 8,0 |
| " | " | 4,7266 | 0,8903 | 0,7043 | 1,12 | 4,0223 | 85,1 | 0,7748 | 0,0705 | 9,1 |
| " | " | 4,7240 | 0,8898 | 0,7322 | 1,08 | 3,9918 | 84,5 | 0,7887 | 0,0565 | 7,4 |
| 1100 | 20 | 4,7334 | 0,8916 | 3,0152 | 3,65 | 1,7182 | 36,3 | 3,4737 | 0,4585 | 13,2 |
| " | " | 4,7103 | 0,8872 | 2,8968 | 3,76 | 1,8135 | 38,5 | 3,3881 | 0,4913 | 14,5 |
| " | " | 4,7222 | 0,8895 | 2,9423 | 3,81 | 1,7701 | 37,4 | 3,2829 | 0,3881 | 15,9 |
| " | 30 | 4,7343 | 0,8918 | 2,1239 | 2,26 | 2,6104 | 55,1 | 2,3086 | 0,1847 | 18,0 |
| " | " | 4,7045 | 0,8861 | 2,0888 | 2,31 | 2,6157 | 57,3 | 2,2241 | 0,3353 | 20,1 |
| " | " | 4,7308 | 0,8911 | 2,0863 | 2,35 | 2,6445 | 55,9 | 2,3725 | 0,4862 | 18,9 |
| " | 40 | 4,7799 | 0,9003 | 1,3278 | 1,83 | 3,4523 | 72,3 | 1,9692 | 0,3414 | 20,5 |
| " | " | 4,7219 | 0,8893 | 1,2511 | 1,73 | 3,4702 | 73,2 | 1,2222 | 0,3011 | 19,4 |
| " | 50 | 4,7498 | 0,8950 | 0,9698 | 0,90 | 4,2710 | 82,2 | 0,4909 | 0,0507 | 21,4 |
| 1300 | 10 | 4,7382 | 0,8925 | 3,2984 | 4,33 | 1,4398 | 24,9 | 3,5201 | 0,5217 | 13,0 |
| " | " | 4,7345 | 0,8918 | 2,2603 | 4,00 | 2,1742 | 24,8 | 4,1447 | 0,5844 | 14,1 |
| " | " | 4,7523 | 0,8952 | 2,0834 | 4,72 | 1,6689 | 22,5 | 4,4729 | 0,5896 | 13,8 |
| " | 20 | 4,7098 | 0,8871 | 2,4252 | 2,96 | 2,2843 | 48,5 | 3,1297 | 0,7102 | 23,1 |
| " | " | 4,7255 | 0,8901 | 2,4053 | 3,51 | 2,3202 | 49,1 | 3,1607 | 0,7554 | 23,9 |
| " | " | 4,7218 | 0,8913 | 2,4179 | 3,72 | 2,3139 | 49,9 | 3,3882 | 0,9703 | 28,0 |
| " | 30 | 4,7334 | 0,8916 | 1,5017 | 2,04 | 3,4317 | 72,2 | 4,8260 | 0,9343 | 23,1 |
| " | " | 4,7339 | 0,8936 | 1,2097 | 1,97 | 3,5242 | 74,3 | 4,2460 | 0,9719 | 32,1 |
| " | 40 | 4,7203 | 0,8891 | 1,2462 | 1,78 | 3,4741 | 73,6 | 4,0418 | 0,9628 | 22,2 |
| 1500 | 10 | 4,7355 | 0,8920 | 3,2438 | 3,85 | 1,4917 | 31,5 | 3,5607 | 0,3169 | 8,9 |
| " | " | 4,7229 | 0,8896 | 3,1549 | 3,96 | 1,5680 | 33,2 | 3,5608 | 0,4059 | 11,4 |
| " | " | 4,7744 | 0,8995 | 3,2422 | 3,97 | 1,5327 | 32,1 | 3,6125 | 0,3689 | 10,2 |
| " | 15 | 4,7124 | 0,8876 | 2,4976 | 3,17 | 2,2148 | 47,0 | 3,8446 | 0,3470 | 12,2 |
| " | " | 4,6861 | 0,8802 | 2,3025 | 2,95 | 2,1234 | 49,0 | 3,0153 | 0,5126 | 17,0 |
| " | " | 4,7329 | 0,8915 | 2,4706 | 3,21 | 2,2623 | 47,8 | 3,8835 | 0,4130 | 14,5 |
| " | 20 | 4,7308 | 0,8911 | 1,7217 | 2,42 | 3,0089 | 63,6 | 2,1736 | 0,4577 | 21,0 |
| " | " | 4,7334 | 0,8916 | 1,7531 | 2,45 | 2,9773 | 62,9 | 2,2281 | 0,4528 | 20,5 |
| " | " | 4,7229 | 0,8896 | 1,7947 | 2,63 | 2,9282 | 62,0 | 2,3846 | 0,5899 | 24,1 |
| 1700 | 5 | 4,7303 | 0,8910 | 3,7369 | | 0,9934 | 22,9 | | | |
| " | | 4,7234 | 0,8897 | 3,4775 | | 1,2459 | 21,9 | | | |
| " | 10 | 4,7276 | 0,8905 | 2,9216 | | 1,8060 | 40,1 | | | |
| " | " | 4,7327 | 0,8928 | 2,7639 | | 1,9688 | 41,2 | | | |
| " | 15 | 4,7308 | 0,8911 | 2,7635 | | 1,9673 | 41,5 | | | |

+) Rg.1. Trockenzustand

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| rsuch Tem °C |
| 900 " " " " " |
| 110 " " " " " |
| 130 " " " " " |
| 150 " " " " " |
| 17 |

Tabelle 7

fälischer Koks — Gichtgas

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| rsuchebedingungen | | Ausgangsdaten | | Meßwerte | | Errechnete Größen | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_1$ g | Vol. $V_1$ cm³ | $G_o-G_1$ g | $G_o-G_1$ % | Gew. $G_s$ g | $G_s-G_1$ g | $G_s-G_1$ % |
| 900 | 30 | 4,8122 | 0,9166 | 4,7689 | 5,24 | 0,0433 | 0,9 | 4,8074 | 0,0385 | 0,8 |
| " | " | 4,7156 | 0,8982 | 4,6496 | 5,23 | 0,0660 | 1,4 | 4,7061 | 0,0565 | 1,2 |
| " | 60 | 4,7224 | 0,8995 | 4,6516 | 5,23 | 0,0708 | 1,5 | 4,7081 | 0,0565 | 1,2 |
| " | " | 4,7334 | 0,9016 | 4,6719 | 5,26 | 0,0615 | 1,3 | 4,7382 | 0,0663 | 1,4 |
| " | 120 | 4,7066 | 0,8965 | 4,6125 | 5,24 | 0,0941 | 2,0 | 4,7018 | 0,0893 | 1,9 |
| " | " | 4,7880 | 0,9120 | 4,7018 | 5,24 | 0,0862 | 1,8 | 4,7783 | 0,0765 | 1,6 |
| 1100 | 30 | 5,2411 | 0,8983 | 5,0419 | 5,26 | 0,1992 | 3,8 | 5,3073 | 0,2654 | 5,0 |
| " | " | 4,7229 | 0,8996 | 4,5197 | 5,25 | 0,2031 | 4,3 | 4,7229 | 0,2031 | 4,3 |
| " | 60 | 4,7429 | 0,9034 | 4,4109 | 5,35 | 0,3320 | 7,0 | 4,8369 | 0,4256 | 8,8 |
| " | " | 4,7513 | 0,9050 | 4,3854 | 5,28 | 0,3659 | 7,7 | 4,7771 | 0,3917 | 8,2 |
| " | 120 | 4,7444 | 0,9037 | 4,1276 | 5,50 | 0,6168 | 13,0 | 4,9670 | 0,8394 | 16,9 |
| " | " | 4,6725 | 0,8900 | 3,9810 | 4,72 | 0,6915 | 14,8 | 4,2038 | 0,2228 | 15,3 |
| 1300 | 30 | 4,7061 | 0,8964 | 4,0943 | 4,97 | 0,6118 | 13,0 | 4,4698 | 0,3755 | 8,4 |
| " | " | 4,7834 | 0,9115 | 4,2207 | 5,14 | 0,5647 | 11,8 | 4,6845 | 0,4638 | 9,9 |
| " | 60 | 4,7082 | 0,8966 | 3,6065 | 4,83 | 1,1017 | 23,4 | 4,3347 | 0,7282 | 15,8 |
| " | " | 4,7276 | 0,9005 | 3,6541 | 4,81 | 1,0735 | 22,8 | 4,3346 | 0,6805 | 15,7 |
| " | 90 | 4,7203 | 0,8991 | 3,1579 | | 1,5624 | 33,1 | | | |
| " | " | 4,7313 | 0,9012 | 3,1336 | | 1,5977 | 32,5 | | | |
| 1500 | 10 | 4,7523 | 0,9052 | 4,0347 | | 0,7176 | 15,1 | | | |
| " | " | 4,7471 | 0,9042 | 4,0730 | | 0,6741 | 14,2 | | | |
| " | 20 | 4,7381 | 0,9025 | 3,5015 | | 1,2366 | 26,1 | | | |
| " | " | 4,7224 | 0,8995 | 3,5465 | | 1,1759 | 24,9 | | | |
| " | 30 | 4,7276 | 0,9005 | 2,9784 | | 1,7492 | 37,0 | | | |
| " | " | 4,7345 | 0,9018 | 3,0111 | | 1,7234 | 36,4 | | | |
| 1700 | 5 | 4,7189 | 0,8990 | 4,0307 | | 0,6891 | 14,6 | | | |
| " | " | 4,7408 | 0,9030 | 4,0913 | | 0,6495 | 13,7 | | | |
| " | 10 | 4,7376 | 0,9024 | 3,6243 | | 1,1133 | 23,5 | | | |
| " | 15 | 4,7066 | 0,8965 | 3,3888 | | 1,3178 | 28,0 | | | |

+) Rg. 1. Trockenzustand

| Zeit-chen | Strouchs Temp °C. |
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| 900 | |
| 1100 | |
| 1300 | |
| 1500 | |
| 1700 | |

Tabelle 8

Kohlensäure

...scher Koks

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| ...reuchsbedingungen | | Ausgangsdaten | | Endwerte | | Errechnete Werte | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) $\gamma$ cm³ | Gew. $G_1$ g | Vol. $V_1$ cm³ | $G_o-G_1$ g | $G_o-G_1$ % | Gew. $G_s$ g | $G_s-G_1$ g | $G_s-G_1$ % |
| 900 | 60 | 4,6725 | 0,890 | 4,4435 | 5,20 | 0,2290 | 4,9 | 4,6238 | 0,1803 | 3,9 |
| " | " | 4,3465 | 0,866 | 4,2646 | 5,13 | 0,2819 | 6,2 | 4,4469 | 0,1823 | 4,1 |
| " | " | 4,7407 | 0,903 | 4,5777 | 5,86 | 0,2630 | 5,5 | 4,2324 | 0,2777 | 6,0 |
| " | 90 | 4,3627 | 0,831 | 4,1446 | 5,85 | 0,2181 | 5,0 | 4,3627 | 0,2181 | 5,0 |
| " | " | 4,4205 | 0,842 | 4,1597 | 5,25 | 0,2608 | 5,9 | 4,4205 | 0,2608 | 5,9 |
| " | " | 4,4100 | 0,840 | 4,1410 | 5,12 | 0,2690 | 6,1 | 4,3911 | 0,1511 | 3,7 |
| " | 120 | 4,6882 | 0,893 | 4,4303 | 5,13 | 0,2579 | 5,5 | 4,4838 | 0,1465 | 3,2 |
| " | " | 4,4363 | 0,845 | 4,1923 | 5,33 | 0,2440 | 5,5 | 4,2[illegible] | 0,3122 | 7,0 |
| " | " | 4,7775 | 0,910 | 4,4670 | 5,30 | 0,3105 | 6,5 | 4,4246 | 0,3270 | 7,4 |
| 1100 | 40 | 4,6830 | 0,892 | 3,2781 | 4,82 | 1,4049 | 30,0 | 4,3026 | 1,0222 | 23,8 |
| " | " | 4,5330 | 0,864 | 3,2260 | 5,27 | 1,3100 | 29,4 | 4,2965 | 1,2335 | 29,2 |
| " | " | 4,6043 | 0,877 | 3,1908 | 5,10 | 1,4135 | 30,7 | 4,4689 | 1,2781 | 28,6 |
| " | 60 | 4,4730 | 0,852 | 2,5407 | 4,95 | 1,9323 | 42,2 | 4,2883 | 1,3481 | 35,0 |
| " | " | 4,2735 | 0,814 | 2,4872 | 4,75 | 1,7863 | 41,8 | 4,0681 | 1,2809 | 35,7 |
| " | " | 4,3050 | 0,820 | 2,4269 | 4,62 | 1,8781 | 42,0 | 4,2[illegible] | 1,2[illegible] | 34,1 |
| " | 90 | 4,3838 | 0,835 | 1,7886 | 3,84 | 2,5952 | 59,2 | 4,0410 | 1,2532 | 47,2 |
| " | " | 4,7303 | 0,901 | 2,0121 | 3,99 | 2,7182 | 57,4 | 4,5[illegible] | 1,2833 | 47,0 |
| " | " | 4,3785 | 0,834 | 1,8346 | 4,10 | 2,5439 | 58,1 | 4,4228 | 1,5882 | 46,4 |
| 1300 | 10 | 4,6043 | 0,877 | 3,4532 | 5,31 | 1,1511 | 25,0 | 4,3[illegible] | 1,2970 | 25,9 |
| " | " | 4,5255 | 0,862 | 3,3298 | 5,04 | 1,1957 | 26,2 | 4,3407 | 1,0389 | 23,2 |
| " | " | 4,7775 | 0,910 | 3,5306 | 5,21 | 1,2469 | 26,1 | 4,4334 | 1,3[illegible] | 27,0 |
| " | 20 | 4,6235 | 0,894 | 2,4265 | 4,45 | 2,2570 | 48,2 | 4,2407 | 1,2842 | 30,3 |
| " | " | 4,5255 | 0,862 | 2,4134 | 4,62 | 2,1121 | 45,0 | 4,3[illegible] | 1,2[illegible] | 39,4 |
| " | " | 4,5760 | 0,872 | 2,3759 | 4,55 | 2,2021 | 48,1 | 4,3[illegible] | 1,2[illegible] | 40,1 |
| " | 30 | 4,3150 | 0,830 | 1,2851 | 2,97 | 3,1299 | 68,1 | 4,2[illegible] | 1,1742 | 42,8 |
| " | " | 4,5233 | 0,873 | 1,3561 | 2,88 | 3,1672 | 70,2 | 4,1[illegible] | 1,1611 | 46,2 |
| " | 40 | 4,5570 | 0,868 | 0,4529 | 1,22 | 4,1041 | 90,2 | 4,[illegible] | 0,6078 | 57,3 |
| 1500 | 5 | 4,7250 | 0,900 | 3,5438 | 4,97 | 1,1812 | 25,0 | 4,4742 | 0,[illegible]307 | 20,8 |
| " | " | 4,5013 | 0,865 | 3,3515 | 5,10 | 1,1898 | 26,2 | 4,[illegible] | 1,0584 | 24,0 |
| " | " | 4,4730 | 0,852 | 3,2921 | 4,96 | 1,1809 | 26,4 | 4,2[illegible] | 0,9540 | 22,1 |
| " | 10 | 4,6305 | 0,882 | 2,4727 | 4,02 | 2,1578 | 46,6 | 4,4[illegible]75 | 1,0746 | 30,3 |
| " | " | 4,4625 | 0,850 | 2,4501 | 4,07 | 1,9724 | 44,2 | 4,4585 | 0,[illegible]884 | 28,0 |
| " | " | 4,8553 | 0,921 | 2,8045 | 4,30 | 2,0508 | 42,0 | 4,[illegible]12 | 1,1567 | 29,2 |
| " | 15 | 4,5875 | 0,860 | 1,8042 | 3,19 | 2,7833 | 60,6 | 4,7757 | 0,9715 | 35,0 |
| " | " | 4,3752 | 0,823 | 1,8793 | 3,42 | 2,5959 | 61,6 | 4,5177 | 0,9384 | 33,3 |
| " | " | 4,4703 | 0,853 | 1,7358 | 3,31 | 2,6825 | 59,9 | 4,6236 | 1,0280 | 36,4 |
| 1700 | 5 | 4,6463 | 0,885 | 3,5498 | | 1,0965 | 23,6 | | | |
| " | " | 4,3418 | 0,827 | 3,4040 | | 0,9378 | 21,[illegible] | | | |
| " | " | 4,4153 | 0,841 | 3,3115 | | 1,1038 | 25,0 | | | |
| " | 10 | 4,6883 | 0,893 | 1,4065 | | 3,2818 | 70,0 | | | |
| " | " | 4,5570 | 0,868 | 1,3306 | | 3,2264 | 70,8 | | | |

+) Kg.i. Trockenzustand

| ischer |
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| ersuchsb |
| Temp. °C |
| 900 " " " " " " " " |
| 1100 " " " " " " " " |
| 1300 " " " " " " " " |
| 1500 " " " " " " " " |
| 1700 " |

Tabelle 8

Luftischer Koks — L u f t

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Versuchsbedingungen | | Ausgangsdaten | | Meßwerte | | | Errechnete Größen | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_1$ g | Vol. $V_1$ cm³ | $G_o-G_1$ g | $G_o-G_1$ % | Gew. $G_s$ g | $G_s-G_1$ g | $G_s-G_1$ % |
| 900 | 20 | 4,5515 | 0,836 | 3,4533 | 4,28 | 1,1582 | 24,9 | 3,7970 | 0,3437 | 8,0 |
| " | " | 4,3313 | 0,825 | 3,2052 | 4,10 | 1,1261 | 26,0 | 3,3381 | 0,1329 | 3,4 |
| " | " | 4,5623 | 0,869 | 3,4080 | 4,18 | 1,1543 | 25,3 | 3,6371 | 0,2291 | 6,3 |
| " | 40 | 4,6883 | 0,893 | 2,8504 | 2,97 | 2,4379 | 52,0 | 2,8537 | 0,4033 | 15,2 |
| " | " | 4,7303 | 0,901 | 2,2942 | 2,88 | 2,4361 | 51,5 | 2,6811 | 0,3869 | 11,8 |
| " | " | 4,4100 | 0,840 | 1,9051 | 2,54 | 2,5049 | 56,8 | 2,1455 | 0,2404 | 11,0 |
| " | 60 | 4,5413 | 0,865 | 0,5677 | 0,76 | 3,9736 | 87,5 | 0,6601 | 0,0924 | 14,0 |
| " | " | 4,4625 | 0,850 | 0,6694 | 0,91 | 3,7931 | 85,0 | 0,7703 | 0,1009 | 13,1 |
| " | " | 4,4088 | 0,855 | 0,7586 | 1,06 | 3,7502 | 85,1 | 0,9195 | 0,1609 | 17,5 |
| 1100 | 20 | 4,6725 | 0,890 | 3,1072 | 4,21 | 1,5653 | 33,5 | 3,7526 | 0,6454 | 17,2 |
| " | " | 4,5305 | 0,862 | 3,0515 | 3,73 | 1,5790 | 34,1 | 3,4715 | 0,4200 | 12,1 |
| " | " | 4,8500 | 0,920 | 3,1020 | 3,80 | 1,7280 | 36,8 | 3,4671 | 0,3651 | 11,3 |
| " | 30 | 4,5465 | 0,866 | 2,0414 | 2,77 | 2,5051 | 55,1 | 2,3316 | 0,2902 | 15,0 |
| " | " | 4,4153 | 0,841 | 2,0355 | 2,85 | 2,3798 | 53,5 | 2,4231 | 0,3876 | 15,3 |
| " | " | 4,6778 | 0,891 | 2,1318 | 2,82 | 2,5260 | 54,0 | 2,1187 | 0,3649 | 14,5 |
| " | 40 | 4,5360 | 0,864 | 1,3153 | 1,95 | 3,2207 | 71,0 | 1,5862 | 0,3709 | 22,0 |
| " | " | 4,6043 | 0,877 | 1,3168 | 1,92 | 3,2875 | 71,4 | 1,5060 | 0,3892 | 21,9 |
| " | 50 | 4,5150 | 0,860 | 0,4921 | 0,77 | 4,0229 | 89,1 | 0,6641 | 0,1720 | 25,9 |
| 1300 | 10 | 4,4625 | 0,850 | 3,3692 | 4,33 | 1,0933 | 24,5 | 3,8505 | 0,4813 | 12,5 |
| " | " | 4,5728 | 0,871 | 3,5439 | 4,72 | 1,0289 | 22,5 | 4,1204 | 0,5765 | 14,0 |
| " | " | 4,7460 | 0,904 | 3,5120 | 4,57 | 1,2340 | 26,0 | 4,1366 | 0,6246 | 15,1 |
| " | 20 | 4,3573 | 0,830 | 2,3130 | 3,31 | 2,0443 | 46,9 | 2,7555 | 0,4425 | 16,0 |
| " | " | 4,6043 | 0,877 | 2,3482 | 3,27 | 2,2561 | 49,0 | 2,5706 | 0,5224 | 18,2 |
| " | " | 4,2788 | 0,815 | 2,3491 | 3,22 | 1,9297 | 45,1 | 2,8717 | 0,5226 | 18,2 |
| " | 30 | 4,3785 | 0,834 | 1,4449 | 2,61 | 2,9336 | 67,0 | 2,1793 | 0,7344 | 33,7 |
| " | " | 4,7355 | 0,902 | 1,5201 | 2,34 | 3,2154 | 67,9 | 2,1112 | 0,5911 | 28,0 |
| " | " | 4,4730 | 0,852 | 1,5566 | 2,55 | 2,9164 | 65,2 | 2,1801 | 0,6235 | 28,6 |
| 1500 | 10 | 4,3733 | 0,833 | 3,0657 | 4,29 | 1,3076 | 29,9 | 2,5772 | 0,5115 | 19,3 |
| " | " | 4,4205 | 0,842 | 3,1635 | 4,27 | 1,2570 | 28,5 | 3,6017 | 0,4382 | 12,0 |
| " | " | 4,4415 | 0,846 | 3,0646 | 4,12 | 1,3769 | 31,0 | 3,4804 | 0,4258 | 12,2 |
| " | 20 | 4,3785 | 0,834 | 1,9659 | 2,82 | 2,4126 | 55,1 | 2,3543 | 0,3884 | 16,5 |
| " | " | 4,3103 | 0,821 | 1,9483 | 2,74 | 2,3620 | 54,8 | 2,2323 | 0,3040 | 13,5 |
| " | " | 4,7880 | 0,912 | 2,1690 | 2,75 | 2,6190 | 54,7 | 2,2250 | 0,3560 | 14,1 |
| " | 25 | 4,5833 | 0,873 | 1,5537 | 2,09 | 3,0296 | 66,1 | 1,8321 | 0,2784 | 15,2 |
| " | " | 4,5833 | 0,873 | 1,6042 | 2,18 | 2,9791 | 65,0 | 1,9087 | 0,3055 | 16,0 |
| " | " | 4,5150 | 0,860 | 1,4945 | 2,02 | 3,0205 | 66,9 | 1,7450 | 0,2493 | 14,3 |
| 1700 | 5 | 4,6830 | 0,892 | 3,7230 | | 0,9600 | 20,5 | | | |
| " | " | 4,6035 | 0,894 | 3,5797 | | 1,0138 | 21,6 | | | |
| " | " | 4,5570 | 0,868 | 3,3089 | | 1,0481 | 23,0 | | | |
| " | 10 | 4,5203 | 0,861 | 2,9201 | | 1,6002 | 35,4 | | | |
| " | " | 4,7775 | 0,910 | 2,9382 | | 1,8393 | 38,5 | | | |

+) Rg.i. Trockenzustand

Tabelle 8

Fischer Koks — Gichtgas

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Versuchsbedingungen | | Ausgangsdaten | | Lesewerte | | Errechnete Größen | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_1$ g | Vol. $V_1$ cm³ | $G_o-G_1$ g | $G_o-G_1$ % | Gew. $G_s$ g | $G_s-G_1$ g | $G_s-G_1$ % |
| 900 | 30 | 4,5042 | 0,877 | 4,3351 | 5,31 | 0,0691 | 1,5 | 4,6609 | 0,1258 | 2,5 |
| " | " | 4,6200 | 0,880 | 4,3184 | 5,30 | 0,1016 | 2,2 | 4,6870 | 0,1486 | 3,1 |
| " | 60 | 4,7303 | 0,901 | 4,3120 | 5,35 | 0,1183 | 2,5 | 4,8042 | 0,1922 | 4,0 |
| " | " | 4,5780 | 0,872 | 4,4590 | 5,37 | 0,1190 | 2,6 | 4,6887 | 0,2297 | 4,9 |
| " | 120 | 4,7775 | 0,910 | 4,3673 | 5,37 | 0,2102 | 4,4 | 4,8900 | 0,3237 | 6,6 |
| " | " | 4,4783 | 0,853 | 4,3036 | 5,49 | 0,1747 | 3,9 | 4,6880 | 0,3844 | 8,2 |
| 1100 | 30 | 4,4835 | 0,854 | 4,2504 | 5,23 | 0,2331 | 5,2 | 4,4741 | 0,2237 | 5,0 |
| " | " | 4,5255 | 0,862 | 4,3247 | 5,25 | 0,2008 | 5,1 | 4,4365 | 0,2118 | 4,7 |
| " | 60 | 4,3260 | 0,824 | 3,9843 | 5,27 | 0,3417 | 7,9 | 4,3402 | 0,3559 | 8,2 |
| " | " | 4,4048 | 0,839 | 4,0436 | 5,22 | 0,3612 | 8,2 | 4,3762 | 0,3326 | 7,6 |
| " | 120 | 4,6200 | 0,880 | 3,9824 | 5,32 | 0,6376 | 13,8 | 4,4452 | 0,7028 | 15,0 |
| " | " | 4,5410 | 0,864 | 3,9217 | 5,21 | 0,7493 | 16,5 | 4,6029 | 0,6812 | 14,8 |
| 1300 | 30 | 4,6980 | 0,895 | 3,9047 | 5,32 | 0,7941 | 16,9 | 4,7010 | 0,8063 | 18,5 |
| " | " | 4,4046 | 0,839 | 3,6340 | 5,26 | 0,7708 | 17,5 | 4,4977 | 0,8637 | 19,2 |
| " | 60 | 4,7723 | 0,909 | 3,2881 | 5,02 | 1,4842 | 31,1 | 4,1377 | 1,8496 | 38,9 |
| " | " | 4,4365 | 0,845 | 3,0877 | 5,00 | 1,3486 | 30,4 | 4,7357 | 1,6480 | 34,8 |
| " | 90 | 4,4835 | 0,854 | 2,4570 | | 2,0265 | 45,2 | | | |
| " | " | 4,4625 | 0,850 | 2,4545 | | 1,9080 | 44,1 | | | |
| 1500 | 10 | 4,4933 | 0,857 | 3,2224 | | 0,2232 | 1,4 | | | |
| " | " | 4,4685 | 0,852 | 3,0313 | | 0,2116 | 1,8 | | | |
| " | 20 | 4,3855 | 0,836 | 2,2028 | | 1,0927 | 25,0 | | | |
| " | " | 4,3778 | 0,831 | 3,0074 | | 1,2204 | 24,3 | | | |
| " | 30 | 4,2270 | 0,806 | 2,1034 | | 1,4236 | 34,9 | | | |
| " | " | 4,2130 | 0,800 | 3,1130 | | 1,1042 | 34,1 | | | |
| 1700 | 5 | 4,5463 | 0,885 | 4,1[illegible] | | 0,3264 | 11,6 | | | |
| " | " | 4,4250 | 0,842 | 3,9237 | | 0,2013 | 11,2 | | | |
| " | 10 | 4,2833 | 0,[illegible] | 3,7713 | | 0,2294 | 10,6 | | | |
| " | 15 | 4,3083 | 0,[illegible] | 3,2[illegible] | | 1,1015 | 25,5 | | | |

+) Bg. 1. Trockenmaterial

| Versuch | Temperatur °C |
|---|---|
| 1 | 900 |
| | " |
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| | " |
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| | " |
| | 1100 |
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| | 1300 |
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| | " |
| | " |
| | " |

Tabelle 9

Kohlensäure

echischer Koks

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| rsuchsbedingungen | | Ausgangsdaten | | Meßwerte | | Errechnete Größen | | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_i$ g | Vol. $V_i$ cm³ | $G_o-G_i$ g | $G_o-G_i$ % | Gew. $G_s$ g | $G_s-G_i$ g | $G_s-G_i$ % |
| 900 | 60 | 5,3603 | 1,021 | 5,1459 | 5,24 | 0,2144 | 4,0 | 5,3547 | 0,2088 | 3,9 |
| " | " | 5,2133 | 0,993 | 5,0569 | 5,25 | 0,1564 | 3,0 | 5,2133 | 0,1564 | 3,0 |
| " | " | 5,1503 | 0,981 | 4,9185 | 5,23 | 0,2318 | 4,5 | 5,1289 | 0,2104 | 4,1 |
| " | 90 | 5,2868 | 1,007 | 4,9960 | 5,22 | 0,2908 | 5,5 | 5,2589 | 0,2629 | 5,0 |
| " | " | 5,1555 | 0,982 | 4,8101 | 5,22 | 0,3454 | 6,7 | 5,1280 | 0,3179 | 6,2 |
| " | " | 5,1083 | 0,973 | 4,8069 | 5,21 | 0,3014 | 5,9 | 5,0652 | 0,2583 | 5,1 |
| " | 120 | 4,8300 | 0,920 | 4,4726 | 5,31 | 0,3574 | 7,4 | 4,8826 | 0,4100 | 7,4 |
| " | " | 4,9507 | 0,943 | 4,5794 | 5,17 | 0,3713 | 7,5 | 4,8717 | 0,2923 | 6,0 |
| " | " | 5,1030 | 0,972 | 4,6948 | 5,22 | 0,4082 | 8,0 | 5,0755 | 0,3807 | 7,5 |
| 1100 | 40 | 5,2028 | 0,991 | 3,8449 | 4,87 | 1,3579 | 26,1 | 4,8303 | 0,9854 | 20,4 |
| " | " | 5,1608 | 0,983 | 3,8035 | 5,08 | 1,3573 | 26,3 | 4,9980 | 1,1945 | 23,9 |
| " | " | 4,9980 | 0,952 | 3,6435 | 4,94 | 1,3545 | 27,1 | 4,7074 | 1,0639 | 22,6 |
| " | 60 | 5,1975 | 0,990 | 3,2640 | 4,89 | 1,9335 | 37,2 | 4,8427 | 1,5787 | 32,6 |
| " | " | 5,2710 | 1,004 | 3,2206 | 4,73 | 2,0504 | 38,9 | 4,7501 | 1,5295 | 32,2 |
| " | " | 5,3078 | 1,011 | 3,2908 | 4,80 | 2,0170 | 38,0 | 4,8537 | 1,5629 | 32,2 |
| " | 90 | 5,0558 | 0,963 | 2,3964 | 4,79 | 2,6594 | 52,6 | 4,6085 | 2,2121 | 48,0 |
| " | " | 5,0925 | 0,970 | 2,3966 | 5,16 | 2,6939 | 52,9 | 5,0075 | 2,6089 | 52,1 |
| " | " | 5,1660 | 0,984 | 2,5365 | 5,48 | 2,6295 | 50,9 | 5,3968 | 2,9603 | 53,0 |
| 1300 | 10 | 5,0453 | 0,961 | 3,8899 | 5,33 | 1,1554 | 22,9 | 5,1183 | 1,2284 | 24,0 |
| " | " | 5,2658 | 1,003 | 3,9652 | 5,06 | 1,3006 | 24,7 | 5,0706 | 1,1054 | 21,8 |
| " | " | 5,4758 | 1,043 | 4,1780 | 5,21 | 1,2978 | 23,7 | 5,4330 | 1,2550 | 23,1 |
| " | 20 | 5,2238 | 0,995 | 3,0037 | 4,51 | 2,2201 | 42,5 | 4,4831 | 1,4794 | 33,0 |
| " | " | 5,2080 | 0,992 | 2,9322 | 4,49 | 2,2758 | 43,7 | 4,4495 | 0,5173 | 34,1 |
| " | 30 | 5,0400 | 0,960 | 2,0463 | 3,64 | 2,9937 | 59,4 | 3,4979 | 1,4516 | 41,5 |
| " | " | 5,1608 | 0,983 | 2,0127 | 3,89 | 3,1481 | 61,0 | 3,3192 | 1,2065 | 41,3 |
| " | 50 | 5,1240 | 0,976 | 0,3587 | 1,05 | 4,7653 | 93,0 | 1,0245 | 0,6662 | 65,0 |
| " | " | 4,8248 | 0,919 | 0,3812 | 1,23 | 4,4436 | 92,1 | 1,1278 | 0,7466 | 66,2 |
| 1500 | 10 | 5,1713 | 0,985 | 2,9011 | 3,46 | 2,2702 | 43,9 | 3,4090 | 0,5079 | 14,9 |
| " | " | 5,1870 | 0,988 | 2,8528 | 3,48 | 2,3342 | 45,0 | 3,4371 | 0,5843 | 17,0 |
| " | " | 5,3130 | 1,012 | 2,9647 | 3,48 | 2,3483 | 44,2 | 3,5250 | 0,5603 | 15,9 |
| " | 20 | 5,2343 | 0,997 | 1,4708 | 2,00 | 3,7635 | 71,9 | 2,0011 | 0,5303 | 26,5 |
| " | " | 5,1818 | 0,987 | 1,5080 | 2,13 | 3,6738 | 70,9 | 2,1003 | 0,5923 | 28,2 |
| " | " | 5,0190 | 0,956 | 1,4806 | 2,16 | 3,5384 | 70,5 | 2,0579 | 0,5873 | 28,4 |
| " | 30 | 5,2920 | 1,008 | 0,4128 | 0,62 | 4,8792 | 92,2 | 0,6203 | 0,2155 | 34,3 |
| " | " | 5,2185 | 0,994 | 0,4436 | 0,67 | 4,7749 | 91,5 | 0,6651 | 0,2215 | 33,3 |
| " | " | 5,1555 | 0,982 | 0,5207 | 0,79 | 4,6348 | 89,9 | 0,7760 | 0,2553 | 32,9 |
| [illegible] | 5 | 5,1188 | 0,975 | 2,9791 | | 2,1397 | 41,8 | | | |
| " | " | 5,1923 | 0,989 | 2,9336 | | 2,2587 | 43,5 | | | |
| " | " | 5,0925 | 0,970 | 2,8467 | | 2,2458 | 44,1 | | | |
| " | 10 | 5,2080 | 0,992 | 1,7186 | | 3,4894 | 67,0 | | | |
| " | " | 5,0243 | 0,957 | 1,6028 | | 3,4215 | 68,1 | | | |

+) Rg. i. Trockenzustand

| echische |
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| 1 |
| Versuche Temp °C |
| 900 " " " " " " " " |
| 1100 " " " " " " " " |
| 1300 " " " " " " " " |
| 1500 " " " " " " " " |
| 1700 " |

Tabelle 9

chischer Koks — L u f t

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| rsuchsbedingungen | | Ausgangsdaten | | Meßwerte | | | Errechnete Größen | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Raumgew.+) g/cm³ | Gew. $G_1$ g | Vol. $V_1$ cm³ | $G_o-G_1$ g | $G_o-G_1$ % | Gew. $G_s$ g | $G_s-G_1$ g | $G_s-G_1$ % |
| 900 | 30 | 5,1975 | 0,990 | 3,5343 | 3,70 | 1,6632 | 32,0 | 3,6625 | 0,1282 | 3,5 |
| " | " | 5,1713 | 0,985 | 3,4099 | 3,59 | 1,7014 | 32,9 | 3,6334 | 0,1535 | 4,5 |
| " | " | 5,1607 | 0,983 | 3,4319 | 3,70 | 1,7288 | 33,5 | [illegible] | 0,2036 | 5,6 |
| " | 60 | 4,9875 | 0,950 | 2,0349 | 2,39 | 2,9526 | 59,2 | 2,2635 | 0,2286 | 10,1 |
| " | " | 5,1870 | 0,988 | 2,0281 | 2,24 | 3,1589 | 60,9 | [illegible] | 0,1812 | 8,2 |
| " | " | 5,0925 | 0,970 | 2,0319 | 2,30 | 3,0606 | 60,1 | [illegible] | 0,2010 | 9,0 |
| " | 90 | 5,2763 | 1,005 | 0,8337 | 1,13 | 4,4426 | 84,2 | [illegible] | [illegible] | 13,0 |
| " | " | 5,3025 | 1,010 | 0,9544 | 1,10 | 4,3481 | 82,0 | [illegible] | 0,1583 | 14,3 |
| " | " | 5,0820 | 0,968 | 0,7674 | 1,03 | 4,3146 | 84,9 | [illegible] | 0,1311 | 14,6 |
| 1100 | 20 | 5,3550 | 1,020 | 3,7324 | 3,99 | 1,6226 | 30,3 | 4,0558 | 0,3334 | 8,2 |
| " | " | 5,2868 | 1,007 | 3,7008 | 4,01 | 1,5860 | 30,0 | 4,0357 | 0,3349 | 8,3 |
| " | " | 4,8143 | 0,917 | 3,2978 | 4,00 | 1,5165 | 31,5 | [illegible] | 0,3664 | 10,0 |
| " | 30 | 4,9508 | 0,943 | 2,6734 | 3,44 | 2,2774 | 46,0 | [illegible] | 0,5671 | 17,5 |
| " | " | 5,1083 | 0,913 | 2,6972 | 3,27 | 2,4111 | 47,2 | [illegible] | 0,4797 | 15,1 |
| " | " | 5,0400 | 0,960 | 2,8136 | 3,46 | 2,2264 | 44,1 | [illegible] | 0,5082 | 15,3 |
| " | 40 | 5,2710 | 1,004 | 2,1348 | 2,65 | 3,1362 | 59,5 | [illegible] | 0,5270 | 19,8 |
| " | " | 5,0400 | 0,960 | 2,0714 | 2,65 | 2,9686 | 58,9 | 2,5416 | 0,4702 | 18,5 |
| " | 60 | 5,1240 | 0,976 | 0,7666 | 1,00 | 4,3554 | 85,0 | 0,9727 | 0,2043 | 29,0 |
| 1300 | 10 | 5,2185 | 0,994 | 4,4722 | 4,74 | 0,7463 | 14,3 | 4,7076 | 0,2354 | 5,0 |
| " | " | 5,1503 | 0,981 | 4,0687 | 4,44 | 1,0816 | 21,0 | [illegible] | 0,2829 | 6,5 |
| " | " | 5,0925 | 0,970 | 4,0282 | 4,39 | 1,0643 | 20,9 | [illegible] | 0,2299 | 5,4 |
| " | 20 | 5,0925 | 0,970 | 4,0282 | 4,39 | 1,0643 | 20,9 | [illegible] | 0,2299 | 5,4 |
| " | " | 4,8248 | 0,919 | 2,9190 | 3,66 | 1,9056 | 32,5 | [illegible] | 0,6321 | 17,8 |
| " | " | 5,0925 | 0,970 | 3,1064 | 3,93 | 1,9861 | 39,0 | [illegible] | 0,7048 | 18,5 |
| " | 30 | 5,1975 | 0,990 | 2,3545 | 2,99 | 2,8430 | 54,7 | [illegible] | 0,6971 | 20,5 |
| " | " | 5,0190 | 0,956 | 2,2084 | 2,92 | 2,8106 | 55,0 | [illegible] | 0,5114 | 21,0 |
| " | 50 | 5,3130 | 1,012 | 0,7279 | 0,97 | 4,5851 | 86,3 | [illegible] | 0,2544 | 25,9 |
| 1500 | 10 | 5,1785 | 0,986 | 3,9860 | 4,54 | 1,1905 | 23,0 | [illegible] | 0,4876 | 10,9 |
| " | " | 5,2395 | 0,998 | 3,9559 | 4,55 | 1,2836 | 24,5 | [illegible] | 0,5011 | 13,0 |
| " | " | 5,1923 | 0,989 | 3,8890 | 4,47 | 1,3033 | 25,1 | [illegible] | 0,5303 | 12,0 |
| " | 20 | 5,1188 | 0,975 | 2,8768 | 3,47 | 2,2420 | 43,8 | [illegible] | 0,5037 | 14,9 |
| " | " | 5,0978 | 0,971 | 2,8701 | 3,51 | 2,2277 | 43,7 | [illegible] | 0,5426 | 15,9 |
| " | " | 5,2080 | 0,992 | 2,8644 | 3,44 | 2,3436 | 45,0 | [illegible] | 0,5497 | 16,1 |
| " | 30 | 5,1870 | 0,988 | 1,9141 | 2,33 | 3,2729 | 63,1 | [illegible] | 0,3920 | 17,0 |
| " | " | 5,3130 | 1,012 | 1,9817 | 2,38 | 3,3313 | 62,7 | [illegible] | 0,4350 | 18,0 |
| " | " | 5,1608 | 0,983 | 1,8630 | 2,37 | 3,2978 | 63,9 | [illegible] | 0,4687 | 20,1 |
| 1700 | 5 | 5,1660 | 0,984 | 4,3395 | | 0,8265 | 16,0 | | | |
| " | " | 5,0243 | 0,957 | 4,1601 | | 0,8642 | 17,2 | | | |
| " | 20 | 5,2080 | 0,992 | 3,7237 | | 1,4843 | 28,5 | | | |
| " | " | 5,4600 | 1,040 | 3,8711 | | 1,5889 | 29,1 | | | |
| " | 15 | 5,1555 | 0,982 | 3,1036 | | 2,0519 | 39,8 | | | |

+) Rg. 1. Trockenzustand

| echisc |
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| 1 |
| rsuchs Temp °C |
| 900 " " " " |
| 1100 " " " " " |
| 1300 " " " " " |
| 1500 " " " " " |
| 1700 " " |

Tabelle 9

chischer Koks — Gichtgas

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| suchsbedingungen | | Ausgangsdaten | | Meßwerte | | | Errechnete Größen | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Rohgew.+) g/cm³ | Gew. $G_i$ g | Vol. $V_i$ cm³ | $G_o-G_i$ g | $G_o-G_i$ % | Gew. $G_s$ g | $G_s-G_i$ g | $G_s-G_i$ % |
| 900 | 30 | 5,2343 | 0,997 | 5,1558 | 5,24 | 0,0785 | 1,5 | 5,2237 | 0,0679 | 1,3 |
| " | " | 5,0925 | 0,970 | 4,9957 | 5,25 | 0,0968 | 1,9 | 5,0925 | 0,0968 | 1,9 |
| " | 60 | 5,1503 | 0,987 | 5,0319 | 5,22 | 0,1184 | 2,3 | 5,1241 | 0,0922 | 1,8 |
| " | " | 4,9980 | 0,952 | 4,8980 | 5,27 | 0,1000 | 2,0 | 5,0133 | 0,1153 | 2,3 |
| " | 120 | 5,2230 | 0,995 | 5,0671 | 5,29 | 0,1507 | 2,8 | 5,2672 | 0,2002 | 3,8 |
| " | " | 5,2238 | 0,995 | 5,0096 | 5,23 | 0,2142 | 4,1 | 5,2021 | 0,1925 | 3,7 |
| 1100 | 30 | 5,3078 | 1,011 | 5,0424 | 5,31 | 0,2654 | 5,0 | 5,3643 | 0,3219 | 6,0 |
| " | " | 5,0663 | 0,965 | 4,7674 | 5,32 | 0,2989 | 5,9 | 5,1318 | 0,3644 | 7,1 |
| " | 60 | 5,1713 | 0,985 | 4,7162 | 5,33 | 0,4551 | 8,8 | 5,2510 | 0,5357 | 10,2 |
| " | " | 5,3550 | 1,020 | 4,8623 | 5,28 | 0,4927 | 9,2 | 5,3906 | 0,5283 | 9,8 |
| " | 120 | 5,0978 | 0,971 | 4,3331 | 5,51 | 0,7647 | 15,0 | 5,3495 | 1,0164 | 19,0 |
| " | " | 5,0663 | 0,965 | 4,3165 | 5,06 | 0,7498 | 14,8 | 4,8529 | 0,5864 | 19,6 |
| 1300 | 30 | 5,0768 | 0,967 | 4,3559 | 5,21 | 0,7209 | 14,2 | 5,0357 | 0,6798 | 13,5 |
| " | " | 5,2133 | 0,993 | 4,4782 | 4,71 | 0,7351 | 14,1 | 4,6945 | 0,1963 | 14,2 |
| " | 60 | 5,3393 | 1,017 | 4,0312 | 5,20 | 1,3081 | 24,5 | 5,2903 | 1,2591 | 23,8 |
| " | " | 4,9875 | 0,950 | 3,5658 | 5,18 | 1,3617 | 26,1 | 4,9210 | 1,2552 | 25,1 |
| " | 90 | 5,1975 | 0,990 | 3,3034 | | 1,8971 | 36,5 | | | |
| " | " | 5,0138 | 0,955 | 3,1487 | | 1,8651 | 37,2 | | | |
| 1500 | 10 | 5,2448 | 0,999 | 4,6154 | | 0,6294 | 12,0 | | | |
| " | " | 5,1923 | 0,989 | 4,5069 | | 0,6854 | 13,2 | | | |
| " | 20 | 5,1973 | 1,009 | 4,1902 | | 1,1071 | 20,9 | | | |
| " | " | 5,0978 | 0,971 | 3,9763 | | 1,1215 | 22,0 | | | |
| " | 30 | 5,1975 | 0,990 | 3,6382 | | 1,5593 | 30,0 | | | |
| " | " | 5,1713 | 0,985 | 3,7027 | | 1,4686 | 28,4 | | | |
| 1700 | 5 | 4,9560 | 0,944 | 4,3613 | | 0,5947 | 12,0 | | | |
| " | " | 5,1188 | 0,975 | 4,5916 | | 0,5272 | 10,3 | | | |
| " | 10 | 5,1503 | 0,981 | 4,3623 | | 0,7880 | 15,3 | | | |
| " | 15 | 5,1668 | 0,983 | 4,0668 | | 1,0990 | 21,2 | | | |

+) Rg.i. Trockenzustand

| ckauer I |
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| 1 |
| Versuchsl |
| Temp °C |
| 900 " " " " " " " " |
| 1100 " " " " " " " " |
| 1300 " " " " " " " " |
| 1500 " " " " " " " " |
| 1700 " " |

Tabelle 12

Kohlenstoffe

kener Koks

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| rauchsbedingungen | | Ausgangswerten | | Meßwerte | | | Errechnete Größen | | | |
| Temp. °C | Zeit min | Gew. $G_o$ g | Rohdichte +) g/cm³ | Gew. $G_1$ g | Vol. $V_1$ cm³ | $G_o-G_1$ g | $G_o-G_1$ % | Gew. $G_s$ g | $G_s-G_1$ g | $G_s-G_1$ % |
| 900 | 60 | 4,7250 | 0,900 | 4,5470 | 5,10 | 0,3780 | 8,[illegible] | 4,5692 | 0,3222 | 6,9 |
| " | " | 4,8253 | 0,861 | 4,2136 | 5,01 | 0,4117 | 8,[illegible] | 5,2084 | 0,9948 | 19,1 |
| " | " | 4,5[illegible] | 0,875 | 4,2127 | 5,[illegible] | 0,3963 | 8,[illegible] | 4,6243 | 0,4116 | 8,9 |
| " | 90 | 4,7198 | 0,889 | 4,1817 | 5,45 | 0,5381 | 11,4 | 4,[illegible] | 0,7495 | 15,2 |
| " | " | 4,8725 | 0,890 | 3,8651 | 5,20 | 0,6074 | 12,[illegible] | 4,7425 | 0,7174 | 15,0 |
| " | " | 4,5885 | 0,874 | 3,9961 | 5,27 | 0,5919 | 12,[illegible] | 4,[illegible] | 0,5077 | 13,2 |
| " | 120 | 4,6200 | 0,850 | 3,6762 | | 0,7438 | 1[illegible],1 | | | |
| " | " | 4,5075 | 0,872 | 3,7773 | | 0,7302 | 1[illegible],2 | | | |
| " | " | 4,6463 | 0,885 | 3,8011 | | 0,7652 | 16,9 | | | |
| 1100 | 20 | 4,7518 | 0,907 | 3,2666 | 4,28 | 1,4952 | 31,4 | 3,8842 | 0,6176 | 25,9 |
| " | " | 4,7250 | 0,900 | 3,1374 | 4,84 | 1,5876 | 33,6 | 4,3575 | 1,2201 | 28,0 |
| " | " | 4,5570 | 0,868 | 3,0532 | 4,23 | 1,5038 | 33,0 | 3,6741 | 0,6209 | 26,9 |
| " | 40 | 4,6883 | 0,893 | 1,0831 | 3,81 | 3,0052 | 64,1 | 2,9573 | 1,1842 | 41,3 |
| " | " | 4,7408 | 0,903 | 1,7162 | 3,25 | 3,0246 | 63,8 | 2,9337 | 1,2175 | 41,5 |
| " | " | 4,4625 | 0,850 | 1,6110 | 3,16 | 2,8515 | 63,9 | 2,[illegible] | 1,[illegible]785 | 40,1 |
| " | 60 | 4,7303 | 0,901 | 0,4636 | 1,05 | 4,2667 | 90,2 | [illegible] | 0,4873 | 50,2 |
| " | " | 4,5308 | 0,863 | 0,4757 | 1,07 | 4,0551 | 89,5 | 0,[illegible]201 | 0,4444 | 48,3 |
| " | " | 4,8038 | 0,870 | 0,5668 | 1,25 | 4,2370 | 88,2 | 1,3960 | 0,5232 | 46,0 |
| 1300 | 10 | 4,3038 | 0,915 | 2,9880 | 4,41 | 1,8158 | 37,8 | 4,[illegible]378 | 1,[illegible]498 | 26,0 |
| " | " | 4,7145 | 0,898 | 2,7720 | 4,28 | 1,9425 | 38,[illegible] | 3,8333 | 1,0671 | 27,8 |
| " | " | 4,5515 | 0,886 | 2,[illegible]337 | 4,24 | 1,7118 | 3[illegible],[illegible] | 4,[illegible]215 | 1,0018 | 24,9 |
| " | 20 | 4,7303 | 0,901 | 1,6[illegible]34 | 2,60 | [illegible] | [illegible],2 | 2,5227 | 0,8303 | 32,9 |
| " | " | 4,7333 | 0,913 | 1,6[illegible]24 | 2,72 | 3,1109 | 65,9 | 2,5453 | 0,[illegible]28 | 33,9 |
| " | " | 4,6463 | 0,885 | 1,5959 | 2,51 | 2,[illegible]504 | 5[illegible],5 | 2,2734 | 0,8775 | 34,1 |
| " | 30 | 4,7775 | 0,910 | 0,6115 | | 4,1660 | | | | |
| " | " | 4,5883 | 0,893 | 0,6470 | | 4,[illegible]43 | 8[illegible],2 | | | |
| " | " | 4,5780 | 0,872 | 0,7096 | | [illegible] | 8[illegible],5 | | | |
| 1500 | 5 | 4,5253 | 0,861 | 2,7738 | 4,37 | 1,8455 | 3[illegible],[illegible] | 3,5968 | 0,8070 | 22,5 |
| " | " | 4,6830 | 0,892 | 2,[illegible]122 | 4,15 | 1,6[illegible]3 | 3[illegible],[illegible] | 3,6[illegible]7 | 0,8805 | 23,8 |
| " | " | 4,7585 | 0,906 | 2,[illegible]3 | 4,13 | 1,[illegible]2 | 4[illegible],[illegible] | 3,7417 | 0,[illegible]354 | 25,0 |
| " | 10 | 4,7[illegible]3 | 0,897 | 2,[illegible]156 | 3,32 | 2,[illegible]37 | 5[illegible],2 | 2,[illegible]38 | 0,[illegible]442 | 31,9 |
| " | " | 4,6[illegible]73 | 0,889 | 1,8202 | 2,05 | 2,8471 | 61,0 | 2,5351 | 0,7149 | 28,2 |
| " | " | 4,5465 | 0,896 | 1,6641 | 3,01 | 2,[illegible]824 | 5[illegible],0 | 2,[illegible]71 | 0,7430 | 28,5 |
| " | 20 | 4,[illegible]673 | 0,889 | 0,3874 | 0,74 | 4,2[illegible]9 | 91,7 | 0,[illegible]22 | 0,2748 | 41,5 |
| " | " | 4,5413 | 0,885 | 0,4042 | 0,85 | 4,1371 | 91,1 | 0,[illegible] | 0,[illegible]4 | 44,9 |
| " | " | 4,5150 | 0,860 | 0,[illegible]87 | 0,75 | 4,1583 | 92,1 | 0,[illegible]27 | 0,[illegible]60 | 44,5 |
| 1700 | 5 | 4,7565 | 0,906 | 1,[illegible]45 | | 2,[illegible]20 | [illegible],8 | | | |
| " | " | 4,8300 | 0,920 | 2,0[illegible] | | 2,7820 | 57,[illegible] | | | |
| " | 10 | 4,8[illegible] | 0,920 | 0,7269 | | 4,0331 | 85,5 | | | |
| " | " | 4,[illegible] | 0,850 | 0,7[illegible]6 | | 3,[illegible] | 8[illegible],[illegible] | | | |
| " | " | 4,5413 | 0,865 | 0,7720 | | 2,7[illegible] | [illegible],[illegible] | | | |

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| Temp °C |
| 900 " " " " " " " " |
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| 1100 " " " " " " " " |
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| 1300 " " " " " " " " |
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| 1500 " " " " " " " " |
| |
| 1700 " " |

kauer Koks

Tabelle 10

Luft

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| rsuchsbedingungen | | Ausgangsdaten | | Meßwerte | | | errechnete Größen | | | |
| Temp. °C | Zeit min | Gew. $G_0$ g | Raumgew.+) g/cm³ | Gew. $G_1$ g | Vol. $V_1$ cm³ | $G_0-G_1$ g | $G_0-G_1$ % | Gew. $G_s$ g | $G_s-G_1$ g | $G_s-G_1$ % |
| 900 | 30 | 4,7355 | 0,902 | 2,5714 | 3,36 | 2,1641 | 45,7 | 3,0323 | 0,4609 | 15,2 |
| " | " | 4,6148 | 0,879 | 2,4828 | 3,27 | 2,1320 | 46,2 | 2,9663 | 0,4835 | 16,3 |
| " | " | 4,6463 | 0,885 | 2,4579 | 3,27 | 2,1884 | 47,1 | 2,9793 | 0,5214 | 17,5 |
| " | 40 | 4,7250 | 0,900 | 1,9751 | 2,65 | 2,7499 | 58,2 | 2,3654 | 0,4103 | 17,2 |
| " | " | 4,6830 | 0,892 | 1,9254 | 2,55 | 2,7576 | 58,8 | 2,3674 | 0,4380 | 18,5 |
| " | " | 4,4678 | 0,851 | 1,8095 | 2,60 | 2,6583 | 59,5 | 2,2294 | 0,3999 | 18,1 |
| " | 60 | 4,5308 | 0,863 | 0,8609 | 1,27 | 3,6699 | 81,0 | 1,0967 | 0,2358 | 21,5 |
| " | " | 4,6200 | 0,880 | 0,9194 | 1,34 | 3,7006 | 80,1 | 1,1833 | 0,2639 | 22,3 |
| " | " | 4,6038 | 0,915 | 0,9848 | 1,40 | 3,6190 | 79,5 | 1,2790 | 0,2942 | 23,0 |
| 1100 | 20 | 4,6515 | 0,876 | 2,5816 | 3,59 | 2,0699 | 44,5 | 3,1445 | 0,5629 | 17,9 |
| " | " | 4,7145 | 0,898 | 2,5883 | 3,68 | 2,1262 | 45,1 | 3,3014 | 0,7131 | 21,6 |
| " | " | 4,6725 | 0,890 | 2,5533 | 3,79 | 2,0892 | 45,0 | 3,2655 | 0,7122 | 21,1 |
| " | 30 | 4,5938 | 0,875 | 2,0580 | 3,14 | 2,5358 | 55,2 | 2,7440 | 0,6860 | 25,0 |
| " | " | 4,6253 | 0,881 | 2,1276 | 3,32 | 2,4977 | 54,0 | 2,9225 | 0,7949 | 27,2 |
| " | " | 4,5728 | 0,871 | 2,1126 | 3,37 | 2,4602 | 53,8 | 2,3342 | 0,8216 | 28,0 |
| " | 40 | 4,7613 | 0,907 | 1,4285 | 2,21 | 3,3333 | 70,0 | 2,0[illegible]7 | 0,5722 | 28,6 |
| " | " | 4,5623 | 0,869 | 1,4508 | 2,23 | 3,1115 | 68,2 | 1,8279 | 0,4362 | 25,1 |
| " | 60 | 4,7408 | 0,903 | 0,1849 | | 4,5559 | 96,1 | | | |
| 1300 | 10 | 4,7250 | 0,900 | 3,5437 | 4,54 | 1,1813 | 25,0 | 4,3826 | 0,5389 | 13,2 |
| " | " | 4,7145 | 0,898 | 3,5877 | 4,59 | 1,1268 | 23,9 | 4,1238 | 0,5361 | 13,0 |
| " | " | 4,5990 | 0,876 | 3,5044 | 4,55 | 1,0946 | 23,8 | 3,9868 | 0,4828 | 12,1 |
| " | 20 | 4,7355 | 0,902 | 2,6282 | 3,53 | 2,1073 | 44,5 | 3,1857 | 0,5575 | 17,5 |
| " | " | 4,7380 | 0,912 | 2,7331 | 3,57 | 2,0541 | 42,9 | 3,2576 | 0,5245 | 16,1 |
| " | " | 4,6725 | 0,890 | 2,5652 | 3,41 | 2,1073 | 45,1 | 3,0357 | 0,4705 | 15,5 |
| " | 30 | 4,5780 | 0,872 | 1,6572 | 2.38 | 2,9208 | 63,8 | 2,0715 | 0,4143 | 20,0 |
| " | " | 4,7565 | 0,906 | 1,6938 | 2,26 | 3,0727 | 64,6 | 2,0509 | 0,3571 | 17,9 |
| " | 50 | 4,5413 | 0,865 | 0,0363 | | 4,5050 | 99,2 | 0,0490 | 0,0127 | 25,9 |
| 1500 | 10 | 4,7775 | 0,910 | 3,3251 | 4,24 | 1,4524 | 30,4 | 3,8619 | 0,5368 | 13,9 |
| " | " | 4,6620 | 0,888 | 3,2075 | 4,22 | 1,4545 | 31,2 | 3,7515 | 0,3440 | 14,5 |
| " | " | 4,6253 | 0,881 | 3,1961 | 4,35 | 1,4292 | 30,9 | 3,8323 | 0,6362 | 16,6 |
| " | 20 | 4,8300 | 0,920 | 2,1349 | 2,89 | 2,6951 | 55,8 | 2,5620 | 0,5271 | 19,8 |
| " | " | 4,5150 | 0,860 | 1,8963 | 2,72 | 2,6187 | 58,0 | 2,3441 | 0,4448 | 19,0 |
| " | " | 4,5675 | 0,870 | 1,8909 | 2,68 | 2,6766 | 58,6 | 2,3316 | 0,4407 | 18,9 |
| " | 30 | 4,6568 | 0,887 | 0,8010 | 1,27 | 3,8558 | 82,8 | 1,1282 | 0,3272 | 19,0 |
| " | " | 4,7565 | 0,906 | 0,8134 | 1,22 | 3,9431 | 82,9 | 1,1082 | 0,2948 | 26,6 |
| " | " | 4,8300 | 0,920 | 0,8114 | 1,21 | 4,0186 | 83,2 | 1,1130 | 0,3016 | 27,1 |
| 1700 | 5 | 4,7092 | 0,897 | 3,5366 | | 1,1726 | 24,9 | | | |
| " | " | 4,4678 | 0,851 | 3,4402 | | 1,0276 | 23,0 | | | |
| " | 10 | 4,6725 | 0,890 | 2,7147 | | 1,9578 | 41,9 | | | |
| " | " | 4,5570 | 0,868 | 2,5929 | | 1,9641 | 43,1 | | | |
| " | 15 | 4,6567 | 0,887 | 1,8254 | | 2,8313 | 60,8 | | | |

+) Bg.i. Trockenzustand

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| ersuchsb |
| Temp. °C |
| 900 " " " " " |
| 1100 " " " " " |
| 1300 " " " " " |
| 1500 " " " " " |
| 1700 |

Tabelle 10

Gichtgas

Kauer Koks

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Versuchsbedingungen | | Ausgangsdaten | | Restwerte | | Errechnete Werte | | | | |
| Temp. | Zeit | Gew. $G_0$ | Raumgew.+) | Gew. $G_1$ | Vol. $V_1$ | $G_0-G_1$ | $G_0-G_1$ | Gew. $G_s$ | $G_s-G_1$ | $G_s-G_1$ |
| °C | min | g | g/cm³ | g | cm³ | g | % | g | g | % |
| 900 | 30 | 4,5728 | 0,871 | 4,4505 | 5,31 | 0,0823 | 1,8 | 4,4246 | 0,1341 | 2,9 |
| " | " | 4,7775 | 0,910 | 4,6628 | 5,26 | 0,1147 | 2,4 | 4,7124 | 0,1196 | 2,5 |
| " | 60 | 4,6988 | 0,895 | 4,5343 | 5,31 | 0,1645 | 3,5 | 4,7480 | 0,2137 | 4,5 |
| " | " | 4,4678 | 0,851 | 4,2936 | 5,31 | 0,1742 | 3,9 | 4,5195 | 0,2260 | 5,0 |
| " | 120 | 4,6988 | 0,891 | 4,3934 | 5,35 | 0,3054 | 6,5 | 4,7702 | 0,3768 | 7,9 |
| " | " | 4,5518 | 0,867 | 4,2104 | 5,37 | 0,3414 | 7,5 | 4,6524 | 0,4420 | 9,5 |
| 1100 | 30 | 4,7618 | 0,907 | 4,1475 | 5,08 | 0,6145 | 12,9 | [illegible] | 0,4608 | 10,0 |
| " | " | 4,7880 | 0,912 | 4,1943 | 5,04 | 0,5937 | 12,4 | [illegible] | 0,4047 | 10,1 |
| " | 60 | 4,6568 | 0,887 | 3,5857 | 4,88 | 1,0711 | 23,0 | [illegible] | 0,7449 | 17,2 |
| " | " | 4,4730 | 0,852 | 3,3905 | 4,91 | 1,0825 | 24,2 | 4,1838 | 0,7933 | 18,0 |
| " | 120 | 4,6725 | 0,890 | 2,7942 | 4,68 | 1,8783 | 40,2 | [illegible] | 1,3700 | 32,9 |
| " | " | 4,6043 | 0,877 | 2,5093 | 4,47 | 2,0950 | 45,5 | [illegible] | 1,4115 | 36,0 |
| 1300 | 30 | 4,5358 | 0,883 | 3,6589 | 4,72 | 0,8769 | 19,3 | [illegible] | 0,5903 | 12,0 |
| " | " | 4,8568 | 0,927 | 3,8204 | 4,75 | 1,0464 | 21,5 | [illegible] | 0,5610 | 13,2 |
| " | 60 | 4,7383 | 0,901 | 2,8565 | 4,45 | 1,7530 | 37,2 | [illegible] | 0,8752 | 22,8 |
| " | " | 4,4688 | 0,855 | 2,7451 | 4,10 | 1,7237 | 38,4 | [illegible] | 0,7439 | 21,2 |
| " | 90 | 4,7670 | 0,908 | 2,1928 | | 2,5742 | 54,0 | | | |
| " | " | 4,8773 | 0,929 | 2,2143 | | 2,6630 | 54,6 | | | |
| 1500 | 10 | 4,5675 | 0,870 | 3,9509 | | 0,6166 | 13,5 | | | |
| " | " | 4,5570 | 0,868 | 3,9099 | | 0,6471 | 14,2 | | | |
| " | 20 | 4,6725 | 0,890 | 3,6399 | | 1,0326 | 22,1 | | | |
| " | " | 4,4573 | 0,849 | 3,4322 | | 1,0341 | 23,2 | | | |
| " | 30 | 4,5358 | 0,883 | 3,1941 | | 1,4417 | 31,1 | | | |
| " | " | 4,3838 | 0,835 | 2,8931 | | 1,4905 | 34,0 | | | |
| 1700 | 5 | 4,5570 | 0,868 | 4,0102 | | 0,5468 | 12,0 | | | |
| " | " | 4,8503 | 0,925 | 4,2104 | | 0,6459 | 13,3 | | | |
| " | 10 | 4,8458 | 0,923 | 3,9542 | | 0,8916 | 18,4 | | | |
| " | 15 | 4,5675 | 0,870 | 3,4530 | | 1,1145 | 24,4 | | | |

+) Rg. i. Trockenzustand

Gewichtsverlust des Kokses in verschiedener Atmosphäre (Glühchargen Bestandteil)

Tabelle 11

Tabelle 11

Gewichtsverlust des Kokses in neutraler Atmosphäre (flüchtige Bestandteile)

| Kokssorte | | BHT | | W | | Chr | | CSR | | Z | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gewichtsverl. | | g | % | g | % | g | % | g | % | g | % |
| Temp. °C | Zeit+) min | | | | | | | | | | |
| 700 | 10 | 0,1833 | 2,99 | | | | | | | | |
| 900 | " | 0,2514 | 4,1 | 0,0388 | 0,82 | 0,0409 | 0,90 | 0,0567 | 1,1 | 0,0350 | 0,75 |
| 1100 | " | 0,3200 | 5,22 | 0,0426 | 0,90 | 0,0950 | 2,09 | 0,0887 | 1,72 | 0,0765 | 1,64 |
| 1300 | " | 0,3844 | 6,27 | 0,1130 | 2,39 | 0,1254 | 2,76 | 0,1268 | 2,46 | 0,1778 | 3,81 |
| 1500 | " | 0,4898 | 7,99 | 0,1480 | 3,13 | 0,1490 | 3,28 | 0,1732 | 3,36 | 0,2403 | 5,15 |
| 1700 | " | 0,5671 | 9,25 | 0,1993 | 4,10 | 0,1831 | 4,03 | 0,2387 | 4,63 | 0,3098 | 6,64 |
| 700 | 60 | 0,2428 | 3,96 | | | | | | | | |
| 900 | " | 0,3568 | 5,82 | 0,0530 | 1,12 | 0,0645 | 1,42 | 0,0768 | 1,49 | 0,0523 | 1,12 |
| 1100 | " | 0,5033 | 8,21 | 0,0847 | 1,79 | 0,0981 | 2,16 | 0,1387 | 2,69 | 0,1115 | 2,39 |
| 1300 | " | 0,6499 | 10,60 | 0,2190 | 4,63 | 0,1595 | 3,51 | 0,3233 | 6,27 | 0,3550 | 7,61 |
| 1500 | " | 0,7363 | 12,01 | 0,2791 | 5,90 | 0,2408 | 5,30 | 0,3846 | 7,46 | 0,4003 | 8,58 |
| 1700 | " | 0,8050 | 13,13 | 0,3316 | 7,01 | 0,2949 | 6,49 | 0,4269 | 8,28 | 0,4945 | 10,60 |

+) nicht berücksichtigt ist die konstante Aufwärmzeit von 10 min

## Tabelle 12

a) BHT-Koks

### Abriebfestigkeit

| Kaltabrieb | | | Abrieb unter Reaktionsbedingungen | | | | |
|---|---|---|---|---|---|---|---|
| | | | Reaktion | | Abrieb | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Siebrückst. 5 mm i.g | Abrieb g | Abrieb % | Gesamtrückst. i.g | Verbranntes % | Siebrückst. 5 mm i.g | Abrieb g | Abrieb % |
| 184,3 | 15,7 | 7,4 | 141,8 | 26,1 | 107,4 | 40,4 | 27,5 |
| 186,2 | 13,8 | 6,9 | 161,2 | 19,4 | 127,4 | 33,8 | 21,0 |
| 184,1 | 15,9 | 8,0 | 183,2 | 18,4 | 130,6 | 32,6 | 20,0 |
| 183,5 | 16,5 | 8,3 | 160,6 | 19,7 | 131,4 | 29,2 | 18,2 |
| 184,9 | 15,9 | 7,6 | 165,8 | 17,1 | 134,2 | 31,6 | 19,1 |
| 181,0 | 19,0 | 9,5 | 160,4 | 19,8 | 137,4 | 23,0 | 14,3 |
| 185,1 | 14,9 | 7,5 | 158,2 | 20,9 | 119,4 | 38,8 | 24,5 |
| 182,2 | 17,8 | 8,9 | 152,0 | 24,0 | 121,7 | 30,3 | 19,8 |
| 183,3 | 16,7 | 8,4 | 153,8 | 23,1 | 126,7 | 27,1 | 17,6 |
| 187,4 | 12,6 | 6,3 | 147,6 | 26,2 | 122,0 | 29,6 | 20,1 |

Tabelle 12

b) Westfälischer Koks

Abriebfestigkeit

| Kaltabrieb | | | Abrieb unter Reaktionsbedingungen | | | | |
|---|---|---|---|---|---|---|---|
| | | | Reaktion | | Abrieb | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Siebrückst. 5 mm i.g | Abrieb g | Abrieb % | Gesamtrückst. i.g | Verbranntes % | Siebrückst. 5 mm i.g | Abrieb g | Abrieb % |
| 193,0 | 7,0 | 3,5 | 197,6 | 1,2 | 191,7 | 5,9 | 3,0 |
| 192,2 | 7,8 | 3,9 | 197,6 | 1,2 | 191,3 | 6,3 | 3,2 |
| 191,0 | 9,0 | 4,5 | 198,0 | 1,0 | 190,5 | 7,5 | 3,8 |
| 194,0 | 6,0 | 3,0 | 198,4 | 0,8 | 193,4 | 5,0 | 2,5 |
| 193,4 | 6,6 | 3,3 | 198,6 | 0,7 | 191,85 | 6,75 | 3,4 |
| 194,2 | 5,8 | 2,9 | 197,2 | 1,4 | 189,1 | 8,1 | 4,1 |
| 195,8 | 4,2 | 2,1 | 196,65 | 1,7 | 188,75 | 7,85 | 4,0 |
| 191,8 | 8,2 | 4,1 | 196,8 | 1,6 | 188,9 | 7,9 | 4,0 |
| 194,4 | 5,6 | 2,8 | 198,2 | 0,9 | 191,1 | 7,1 | 3,6 |
| 192,0 | 8,0 | 4,0 | 197,0 | 1,5 | 190,3 | 6,7 | 3,4 |

- Blatt 2 -

Tabelle 12

c) Polnischer Koks

Abriebfestigkeit

| Kaltabrieb | | | Abrieb unter Reaktionsbedingungen | | | | |
|---|---|---|---|---|---|---|---|
| | | | Reaktion | | Abrieb | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Sieb-rückst. 5 mm i.g | Abrieb g | Abrieb % | Gesamt-rückst. i.g | Verbrann-tes % | Sieb-rückst. 5 mm i.g | Abrieb g | Abrieb % |
| 188,0 | 12,0 | 6,0 | 195,2 | 2,4 | 187,4 | 7,8 | 4,0 |
| 189,8 | 10,2 | 5,1 | 196,0 | 2,0 | 189,9 | 6,1 | 3,1 |
| 193,6 | 6,4 | 3,2 | 191,6 | 4,2 | 183,0 | 8,6 | 4,5 |
| 196,0 | 4,0 | 2,0 | 198,0 | 2,0 | 192,3 | 5,7 | 2,9 |
| 195,0 | 5,0 | 2,5 | 191,8 | 4,1 | 182,2 | 9,6 | 5,0 |
| 189,0 | 11,0 | 5,5 | 194,0 | 3,0 | 180,8 | 13,2 | 6,8 |
| 188,2 | 11,8 | 5,9 | 194,6 | 2,7 | 183,7 | 10,9 | 5,6 |
| 191,8 | 8,2 | 4,1 | 194,2 | 2,9 | 185,1 | 9,1 | 4,7 |
| 192,2 | 7,8 | 3,9 | 198,4 | 0,8 | 190,0 | 8,4 | 4,2 |
| 194,6 | 5,4 | 2,7 | 195,8 | ~~3,1~~ 2,7 | 185,3 | 10,5 | 5,2 |

Tabelle 12

d) Tschechischer Koks

Abriebfestigkeit

| Kaltabrieb | | | Abrieb unter Reaktionsbedingungen | | | | |
|---|---|---|---|---|---|---|---|
| | | | Reaktion | | Abrieb | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Siebrückst. 5 mm i.g | Abrieb g | Abrieb % | Gesamtrückst. i.g | Verbranntes % | Siebrückst. 5 mm i.g | Abrieb g | Abrieb % |
| 191,2 | 8,8 | 4,4 | 188,0 | 6,0 | 180,8 | 7,2 | 3,8 |
| 191,0 | 9,0 | 4,5 | 197,6 | 1,2 | 187,3 | 10,3 | 5,2 |
| 187,8 | 12,2 | 6,1 | 193,6 | 3,2 | 182,8 | 10,8 | 5,6 |
| 187,2 | 12,8 | 6,4 | 195,2 | 2,4 | 181,5 | 13,7 | 7,0 |
| 195,8 | 6,2 | 3,1 | 189,0 | 5,5 | 176,1 | 12,9 | 6,8 |
| 189,4 | 10,6 | 5,3 | 198,2 | 0,9 | 190,9 | 7,3 | 3,7 |
| 190,6 | 9,4 | 4,7 | ~~155,4~~ 195,4 | 2,3 | 142,7 | 12,7 | 8,2 |
| 194,2 | 5,8 | 2,9 | ~~191,8~~ | 4,1 | 182,1 | 9,7 | 5,0 |
| 192,0 | 8,0 | 4,0 | 196,6 | ~~2,2~~ 1,7 | 186,2 | 10,4 | 5,3 |
| 190,4 | 9,6 | 4,8 | 192,2 | ~~4,4~~ 3,9 | 187,3 | 4,9 | 2,5 |

Tabelle 12

e) Zwickauer Koks

Abriebfestigkeit

| Kaltabrieb | | | Abrieb unter Reaktionsbedingungen | | | | |
|---|---|---|---|---|---|---|---|
| | | | Reaktion | | Abrieb | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Siebrückst. 5 mm i.g. | Abrieb g | Abrieb g | Gesamtrückst. i.g | Verbranntes % | Siebrückst. 5 mm i.g | Abrieb g | Abrieb % |
| 191,2 | 8,8 | 4,4 | 187,8 | 6,1 | 176,6 | 11,2 | 6,0 |
| 192,0 | 8,0 | 4,0 | 193,0 | 3,5 | 179,7 | 13,3 | 6,9 |
| 189,8 | 10,2 | 5,1 | 193,2 | 3,4 | 184,9 | 8,3 | 4,3 |
| 193,2 | 6,8 | 3,4 | 188,8 | 5,6 | 172,2 | 16,6 | 8,8 |
| 195,2 | 4,8 | 2,4 | 189,8 | 5,1 | 174,6 | 15,2 | 8,0 |
| 195,2 | 4,8 | 2,4 | 192,2 | 3,9 | 182,4 | 9,8 | 5,1 |
| 194,4 | 5,6 | 2,8 | 170,7 ? | 4,7 ? | 178,1 | 12,6 | 6,6 |
| 191,0 | 9,0 | 4,5 | 187,0 | 8,5 | 175,0 | 12,0 | 6,4 |
| 196,8 | 3,2 | 1,6 | 196,2 | 1,9 | 182,3 | 13,9 | 7,1 |
| 193,4 | 6,6 | 3,3 | 191,4 | 4,3 | 180,1 | 11,3 | 5,9 |

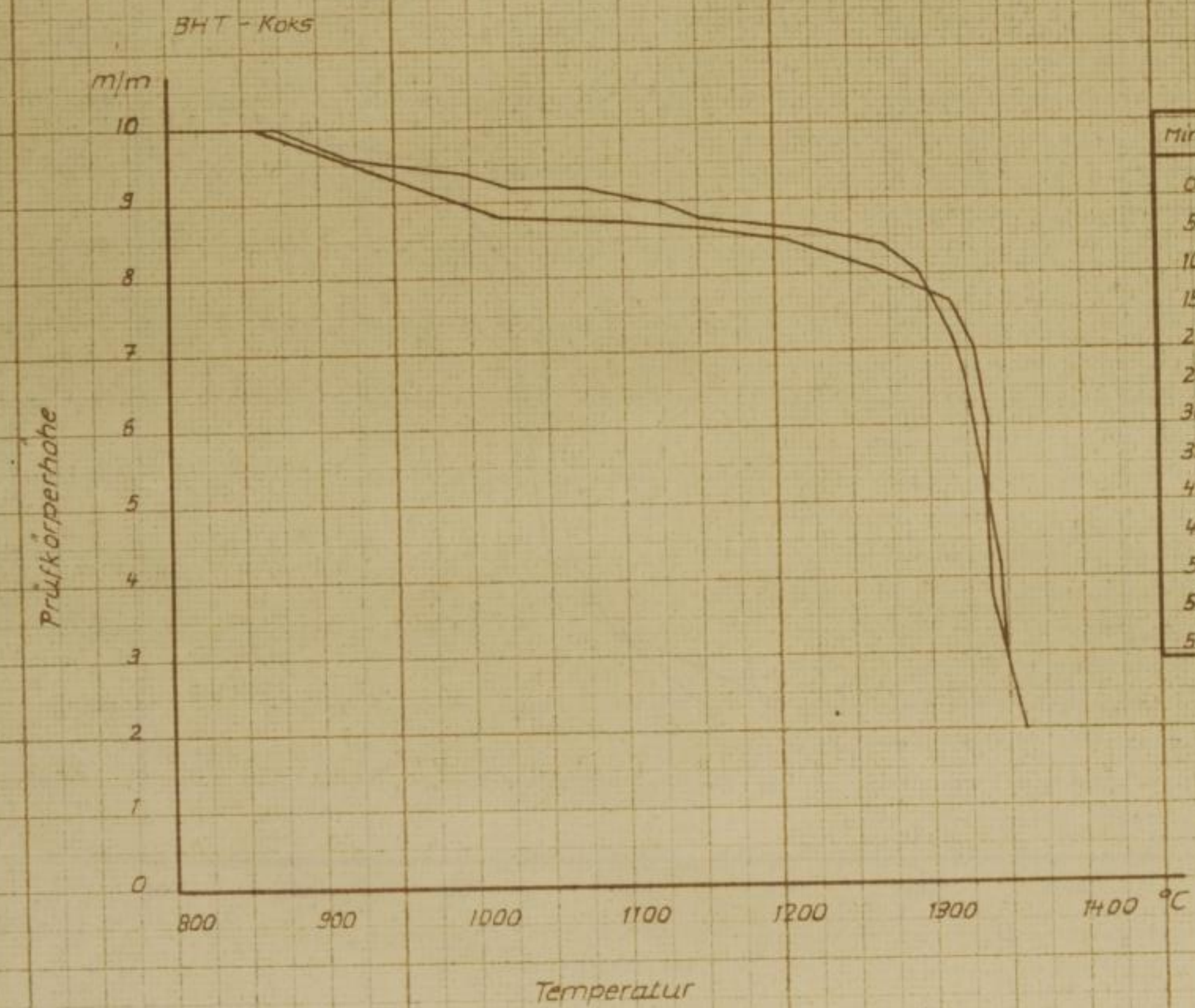
Tabelle 14

Druckfestigkeit in kg/cm²

| | | Kokssorten | | | | |
|---|---|---|---|---|---|---|
| | | BHT | W | Chr | CSR | Z |
| Ausgangs-probe | Grenzen | 250-390 | 123-209 | 165-185 | 189-248 | 98-206 |
| | Mittel | 306 | 174 | 153 | 223 | 155 |
| 900-1300° $N_2$ | Grenzen | 57-295 | 90-238 | 104-196 | 70-227 | 41-256 |
| | Mittel | 160 | 195 | 138 | 130 | 153 |
| 700°C $CO_2$ | Grenzen | 182 | – | – | – | – |
| | Mittel | 182 | | | | |
| 900°C $CO_2$ | Grenzen | 40-134 | 121-218 | 66-120 | 79-131 | 106 |
| | Mittel | 85 | 158 | 93 | 103,3 | 106 |
| 1100°C $CO_2$ | Grenzen | 27-66 | 29-46 | 27-58 | 30-160 | 17- 63 |
| | Mittel | 41 | 40 | 44,2 | 96,5 | 78,5 |
| 1300°C $CO_2$ | Grenzen | 32-70 | 38-40 | 25-59 | 44 | 44- 70 |
| | Mittel | 48 | 39,3 | 45,5 | 44 | 58,7 |
| 700°C Luft | Grenzen | 40-89 | – | – | – | – |
| | Mittel | 61 | | | | |
| 900°C Luft | Grenzen | 22-105 | 80-124 | 30-85 | 91-175 | 57 |
| | Mittel | 61,5 | 94,7 | 69,6 | 127,3 | 57 |
| 1100°C Luft | Grenzen | 25-80 | 83-178 | 62-81 | 53-121 | 65-102 |
| | Mittel | 52,8 | 114 | 67,4 | 83 | 74,2 |
| 1300°C Luft | Grenzen | 41-67 | 44-91 | 41-67 | 50- 87 | 69-129 |
| | Mittel | 54,7 | 66,8 | 56 | 76,2 | 115,3 |

Bild 1a

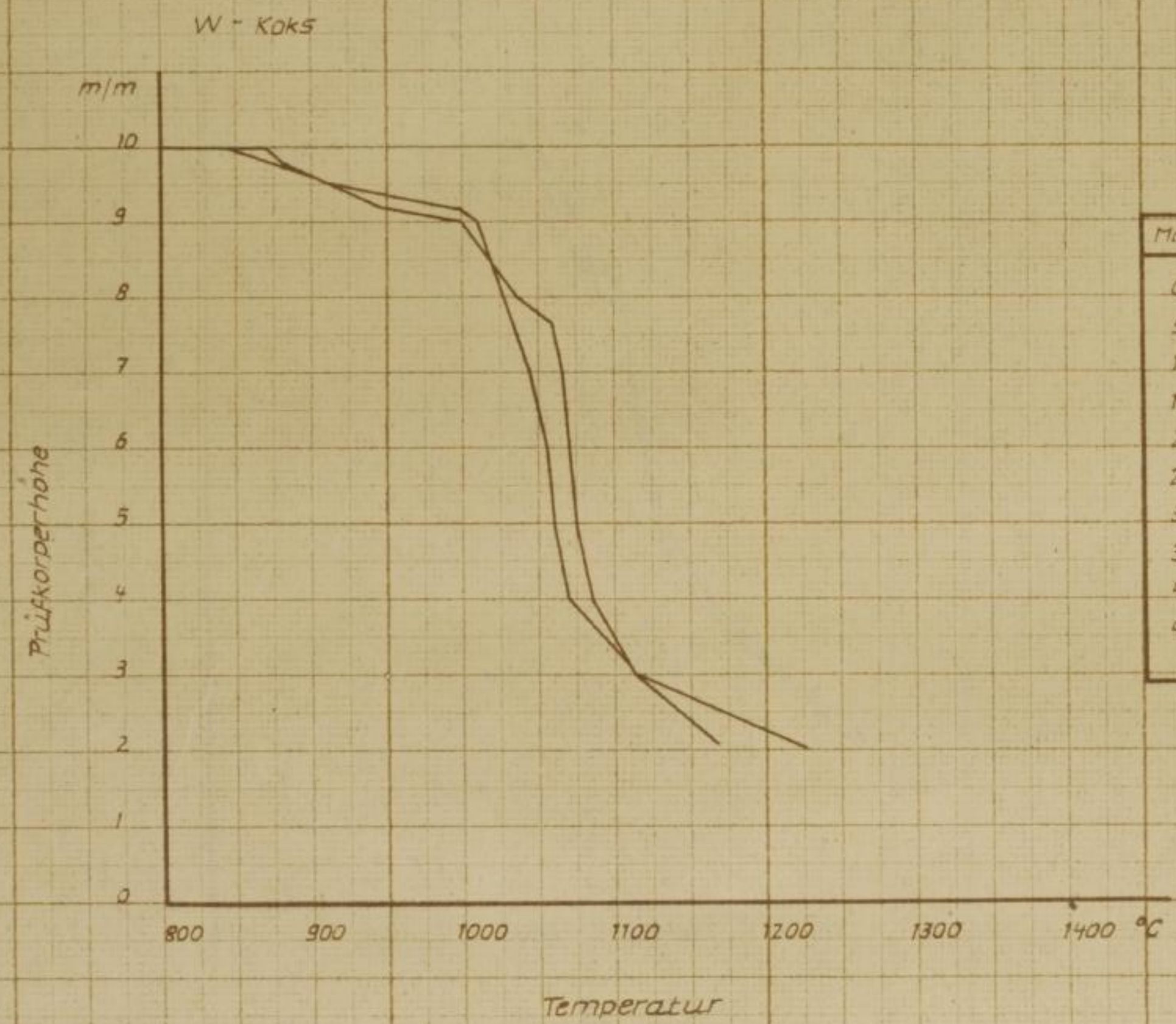
# Asche - Schmelzverhalten




| Min | °C | Höhe Probe | Min | °C | Höhe Probe |
|---|---|---|---|---|---|
| 0 | 800 | 10 | 0 | 800 | 10 |
| 5 | 850 | 10 | 5 | 830 | 10 |
| 10 | 880 | 9,9 | 10 | 870 | 9,9 |
| 15 | 930 | 9,6 | 15 | 940 | 9,4 |
| 21 | 1025 | 9,2 | 20 | 995 | 9,0 |
| 25 | 1020 | 9,1 | 25 | 1050 | 8,8 |
| 30 | 1125 | 9,0 | 30 | 1140 | 8,6 |
| 35 | 1145 | 8,8 | 35 | 1200 | 8,4 |
| 40 | 1160 | 8,8 | 40 | 1240 | 8,2 |
| 45 | 1180 | 8,7 | 46 | 1290 | 7,8 |
| 52 | 1230 | 8,6 | 50 | 1330 | 7,0 |
| 55 | 1290 | 8,1 | 54 | 1360 | 2,0 |
| 59 | 1360 | 2,0 | | | |

Bild 1b

# Asche - Schmelzverhalten

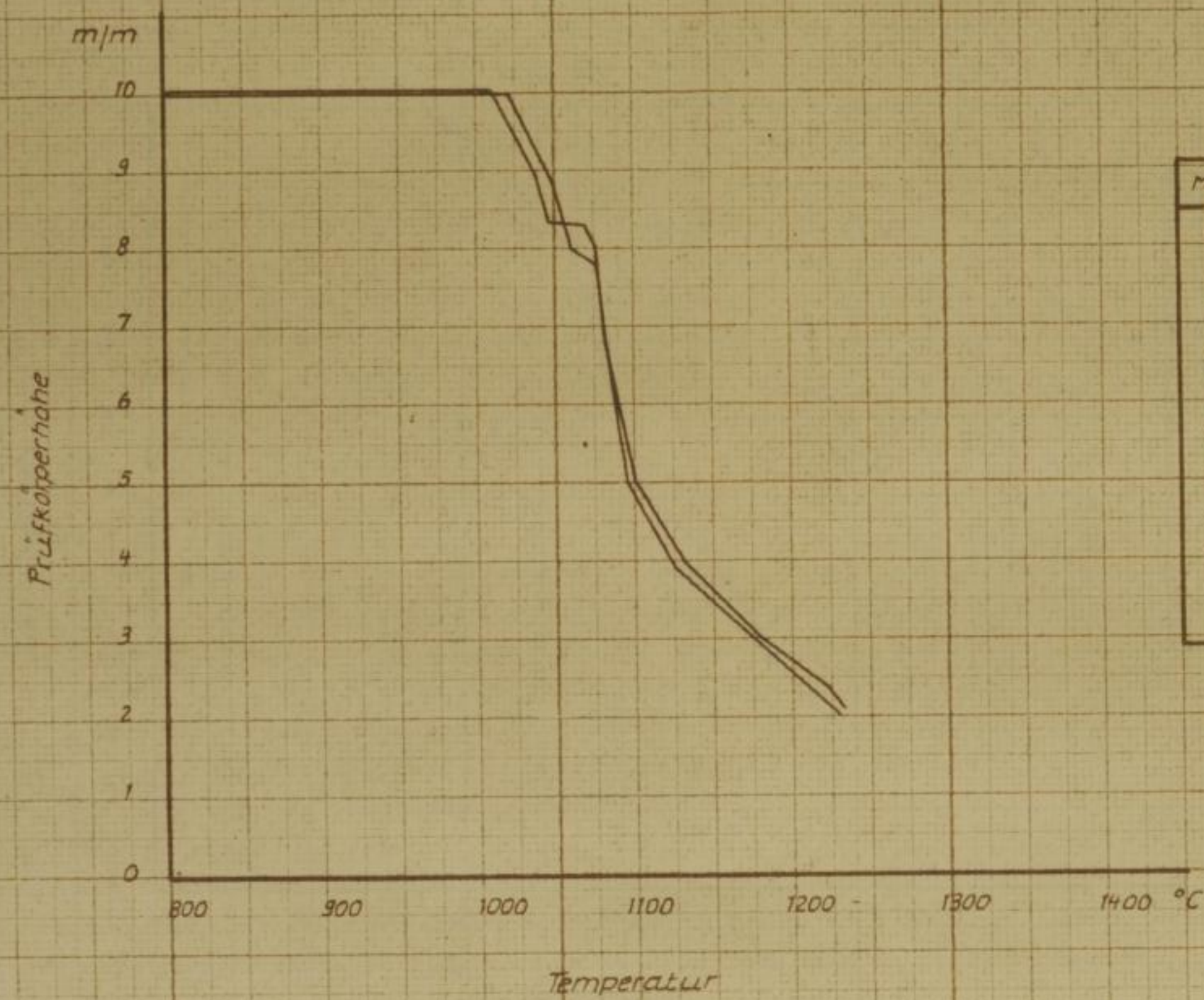



| Min | °C | Höhe Probe | Min | °C | Höhe Probe |
|---|---|---|---|---|---|
| 0 | 800 | 10 | 0 | 800 | 10 |
| 5 | 860 | 10 | 5 | 835 | 10 |
| 10 | 900 | 9,6 | 10 | 880 | 9,7 |
| 15 | 945 | 9,4 | 15 | 950 | 9,2 |
| 20 | 1015 | 8,7 | 20 | 1030 | 8,1 |
| 25 | 1080 | 3,8 | 25 | 1105 | 3,3 |
| 30 | 1115 | 3,0 | 30 | 1165 | 2,1 |
| 37 | 1175 | 2,5 | 31 | 1170 | 2,0 |
| 40 | 1210 | 2,2 | | | |
| 42 | 1230 | 2,0 | | | |

Bild 1c

# Asche - Schmelzverhalten

Chr - Koks

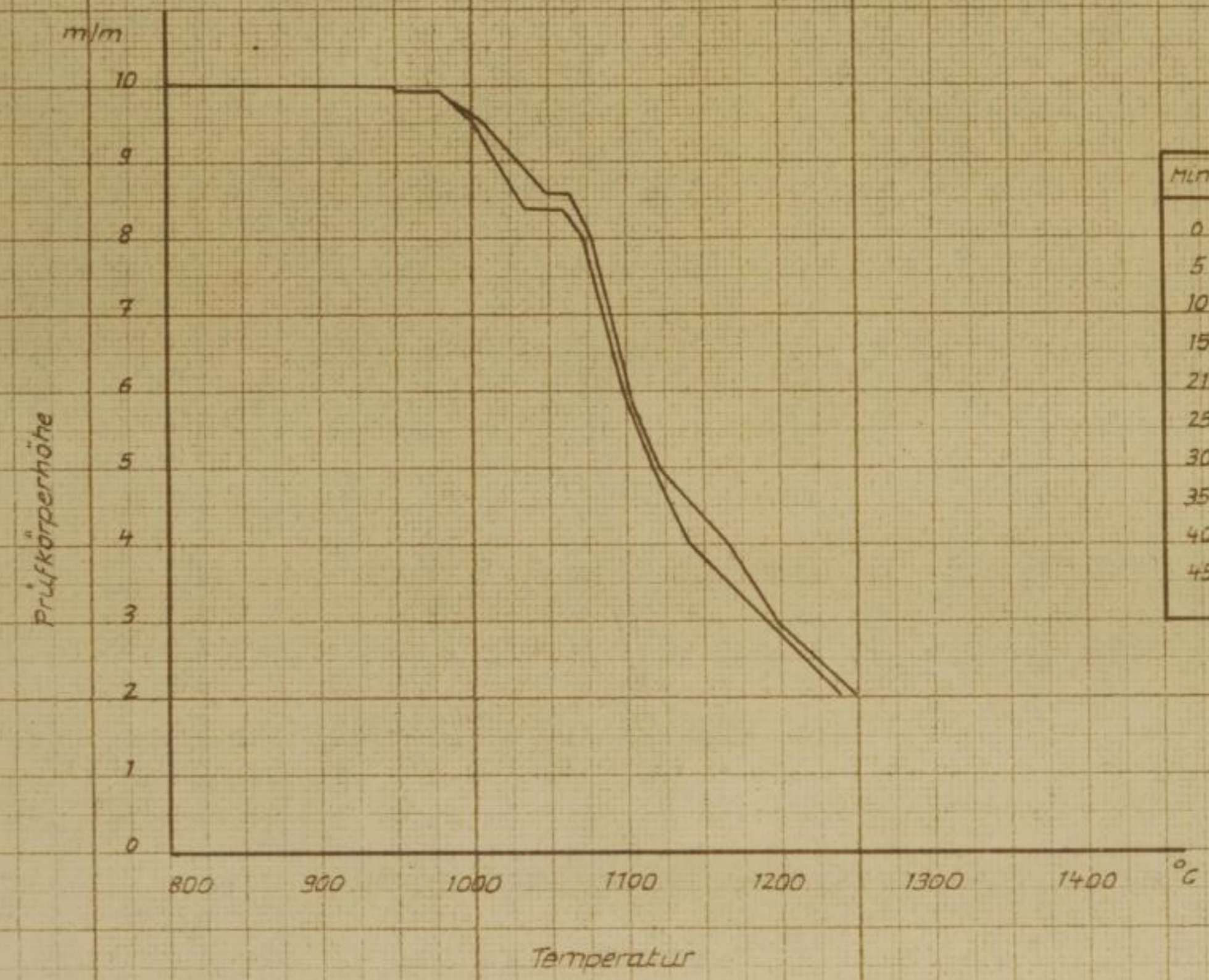



| Min | °C | Höhe Probe | Min | °C | Höhe Probe |
|---|---|---|---|---|---|
| 0 | 805 | 10 | 0 | 800 | 10 |
| 5 | 880 | 10 | 5 | 850 | 10 |
| 10 | 930 | 10 | 10 | 920 | 10 |
| 15 | 980 | 10 | 15 | 995 | 10 |
| 20 | 1040 | 9,1 | 20 | 1030 | 9,2 |
| 25 | 1080 | 6,7 | 25 | 1070 | 8,2 |
| 30 | 1135 | 3,7 | 30 | 1120 | 4,3 |
| 35 | 1170 | 3,1 | 35 | 1170 | 3,2 |
| 40 | 1195 | 2,7 | 40 | 1195 | 2,8 |
| 45 | 1235 | 2,0 | 45 | 1235 | 2,0 |

Bild 1a

# Asche - Schmelzverhalten

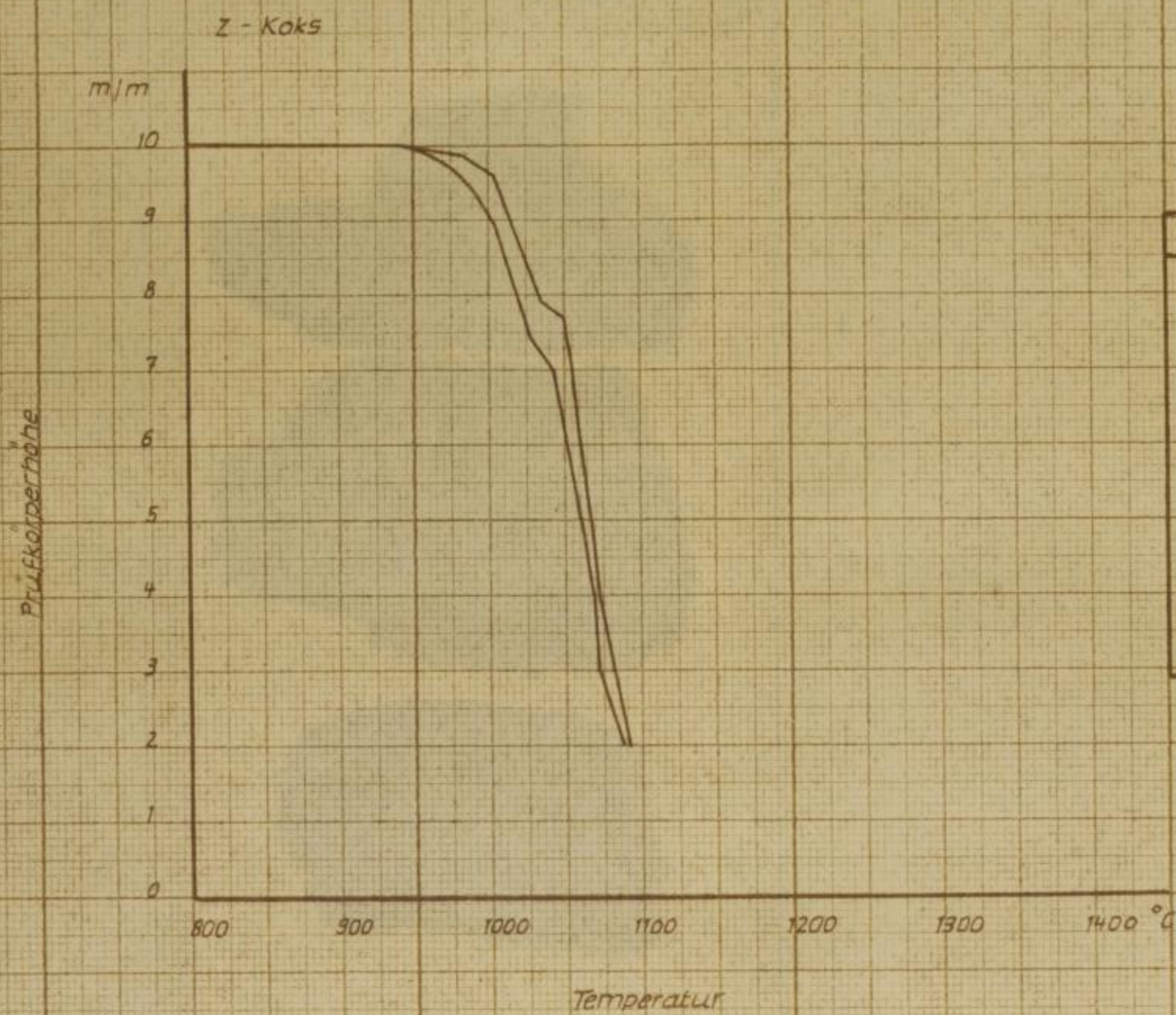
CSR - Koks




| Min | °C | Höhe Probe | Min | °C | Höhe Probe |
|---|---|---|---|---|---|
| 0 | 810 | 10 | 0 | 800 | 10 |
| 5 | 845 | 10 | 6 | 895 | 10 |
| 10 | 890 | 10 | 10 | 935 | 10 |
| 15 | 950 | 10 | 15 | 975 | 9,9 |
| 21 | 1035 | 8,8 | 20 | 1030 | 8,4 |
| 25 | 1080 | 7,4 | 25 | 1070 | 7,9 |
| 30 | 1025 | 4,9 | 30 | 1120 | 4,8 |
| 35 | 1180 | 3,5 | 35 | 1155 | 3,7 |
| 40 | 1210 | 2,8 | 40 | 1180 | 3,2 |
| 45 | 1250 | 2,0 | 45 | 1225 | 2,3 |
| | | | 47 | 1240 | 2,0 |

Bild 1e

# Asche - Schmelzverhalten




| Min | °C | Höhe Probe | Min | °C | Höhe Probe |
|---|---|---|---|---|---|
| 0 | 800 | 10 | 0 | 800 | 10 |
| 5 | 850 | 10 | 5 | 935 | 10 |
| 10 | 910 | 10 | 10 | 885 | 10 |
| 15 | 960 | 10 | 15 | 940 | 10 |
| 20 | 1010 | 9,0 | 20 | 1000 | 9,0 |
| 25 | 1050 | 7,5 | 25 | 1050 | 6,0 |
| 29 | 1090 | 2,0 | 30 | 1090 | 2,0 |

Bild 2: BHT-Koks

Bild 3: W-Koks

Bild 4: Chr-Koks

Bild 5: CSR-Koks

Bild 6: Z-Koks

Bild 7: BHT-Koks

Bild 8: W-Koks

Bild 9: Chr-Koks

Bild 10: CSR-Koks

Bild 11: Z-Koks

Bild 12,a,b: BHT-Koks

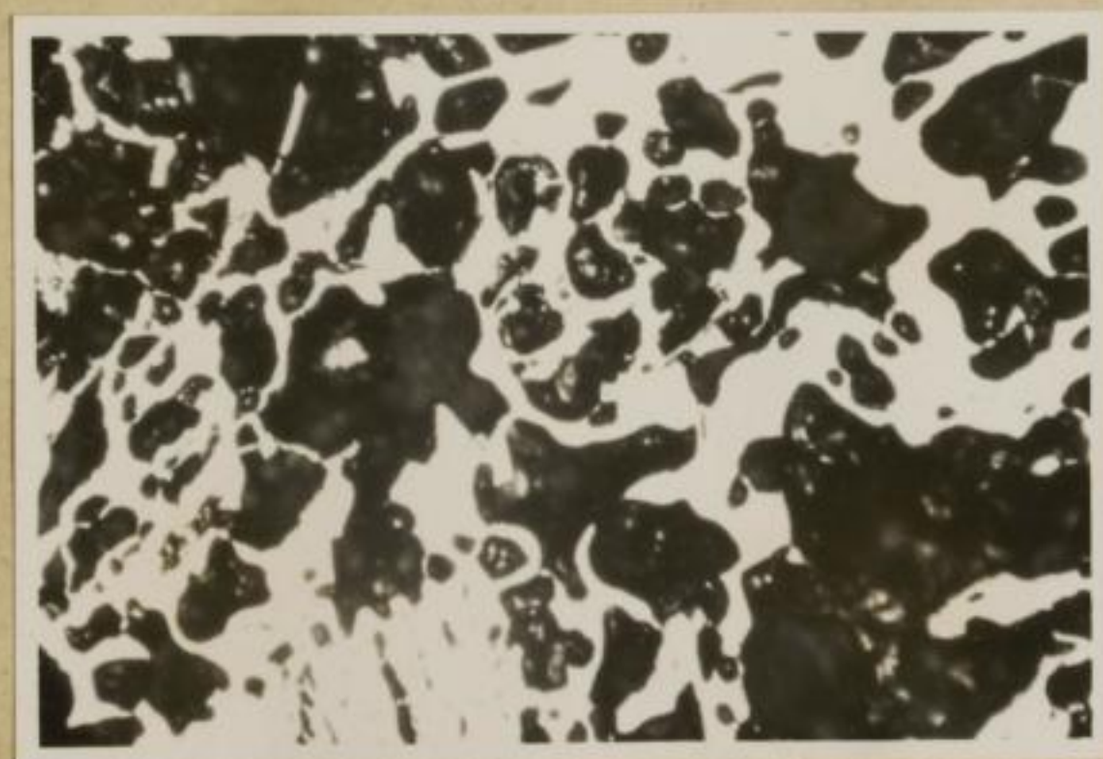


Bild 13a,b: W-Koks

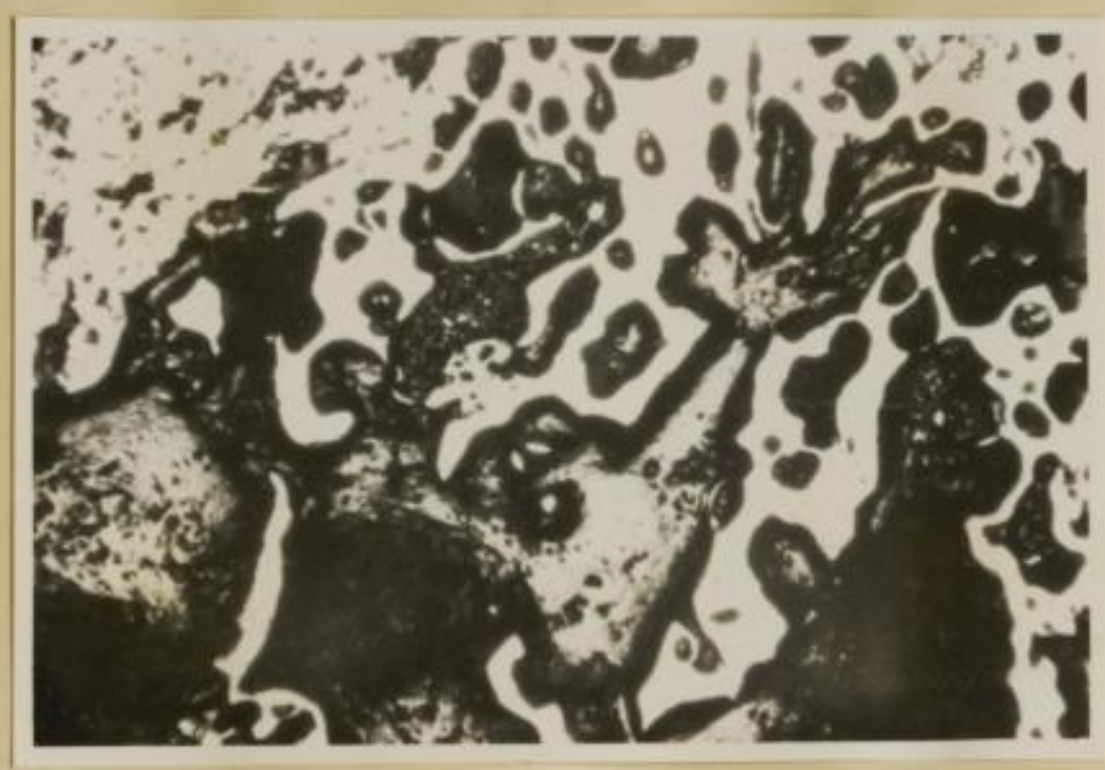


Bild 14a,b: Chr-Koks

Bild 15a,b: CSR-Koks

Bild 16a,b: Z-Koks

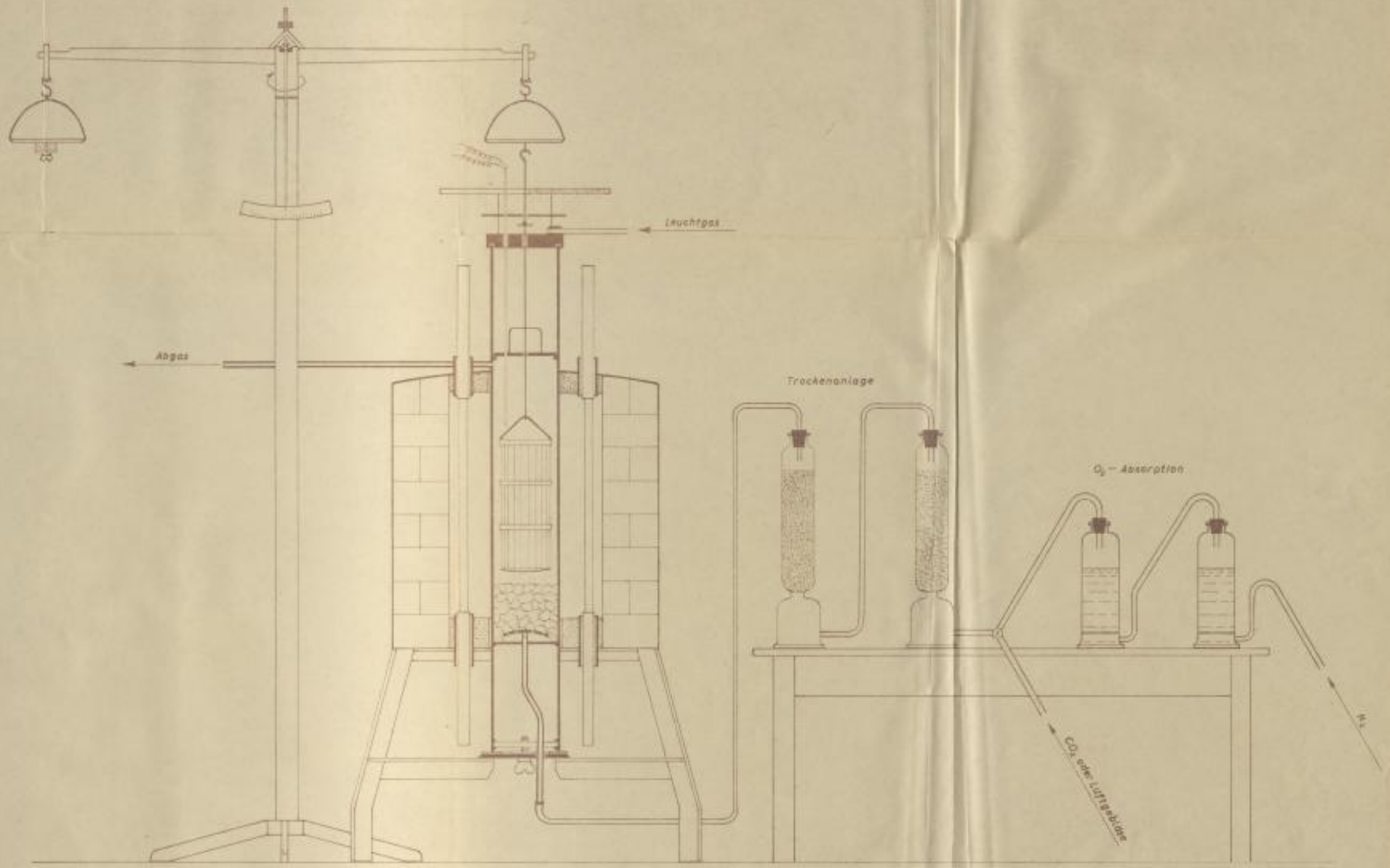



**Bild 17.** *Testapparatur zur Ermittlung des Reaktionsverhaltens von Einsatzstoffen für den Schachtofen-Prozeß in technischen Stückgrößen*

**Bild 18.** *Reaktionsverlauf verschiedener Kokssorten gegenüber $CO_2$ bei 900 °C in Abhängigkeit von der Zeit*

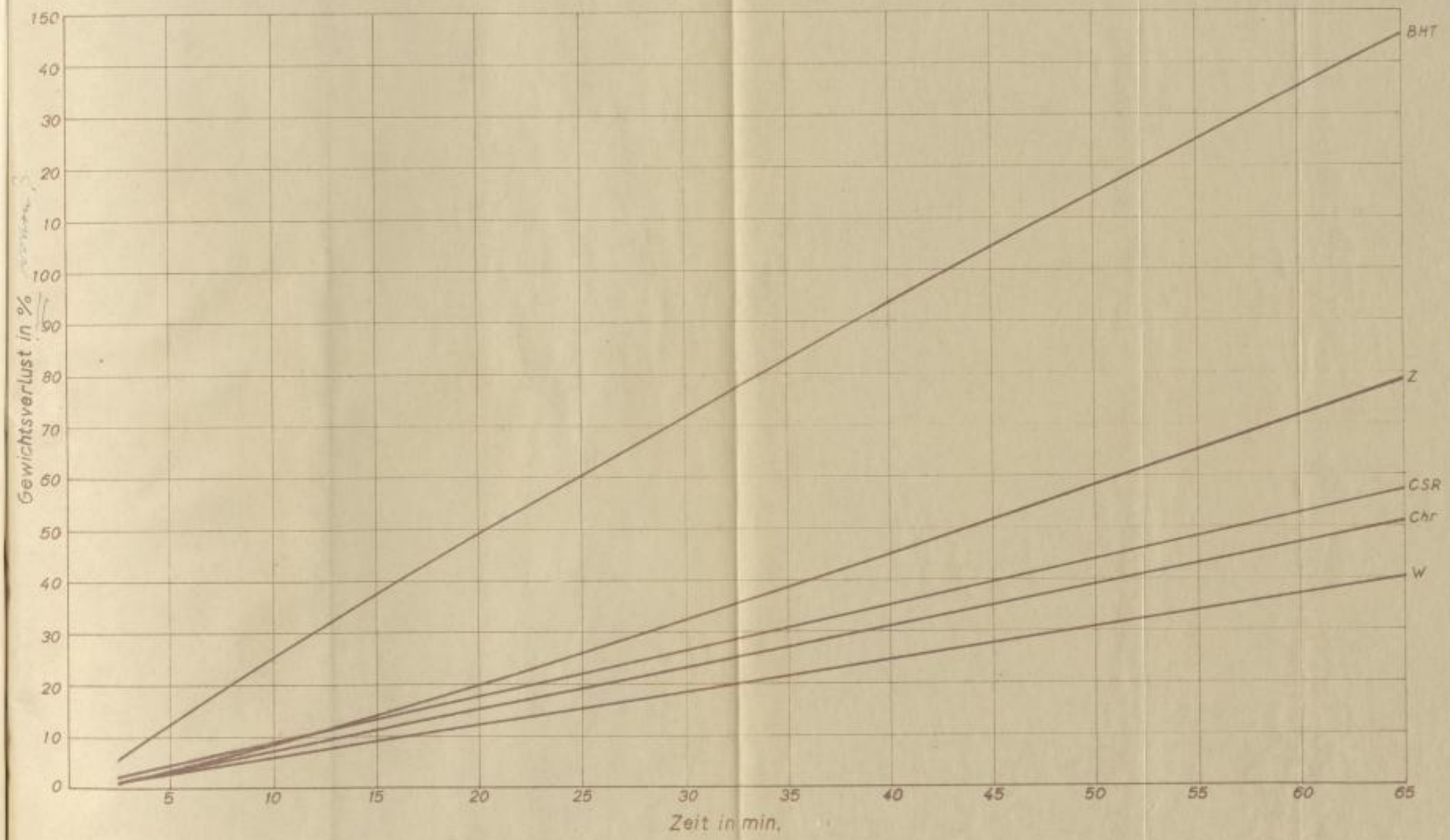


**Bild 19.** *Reaktionsverlauf verschiedener Kokssorten gegenüber Luft bei 900 °C in Abhängigkeit von der Zeit*

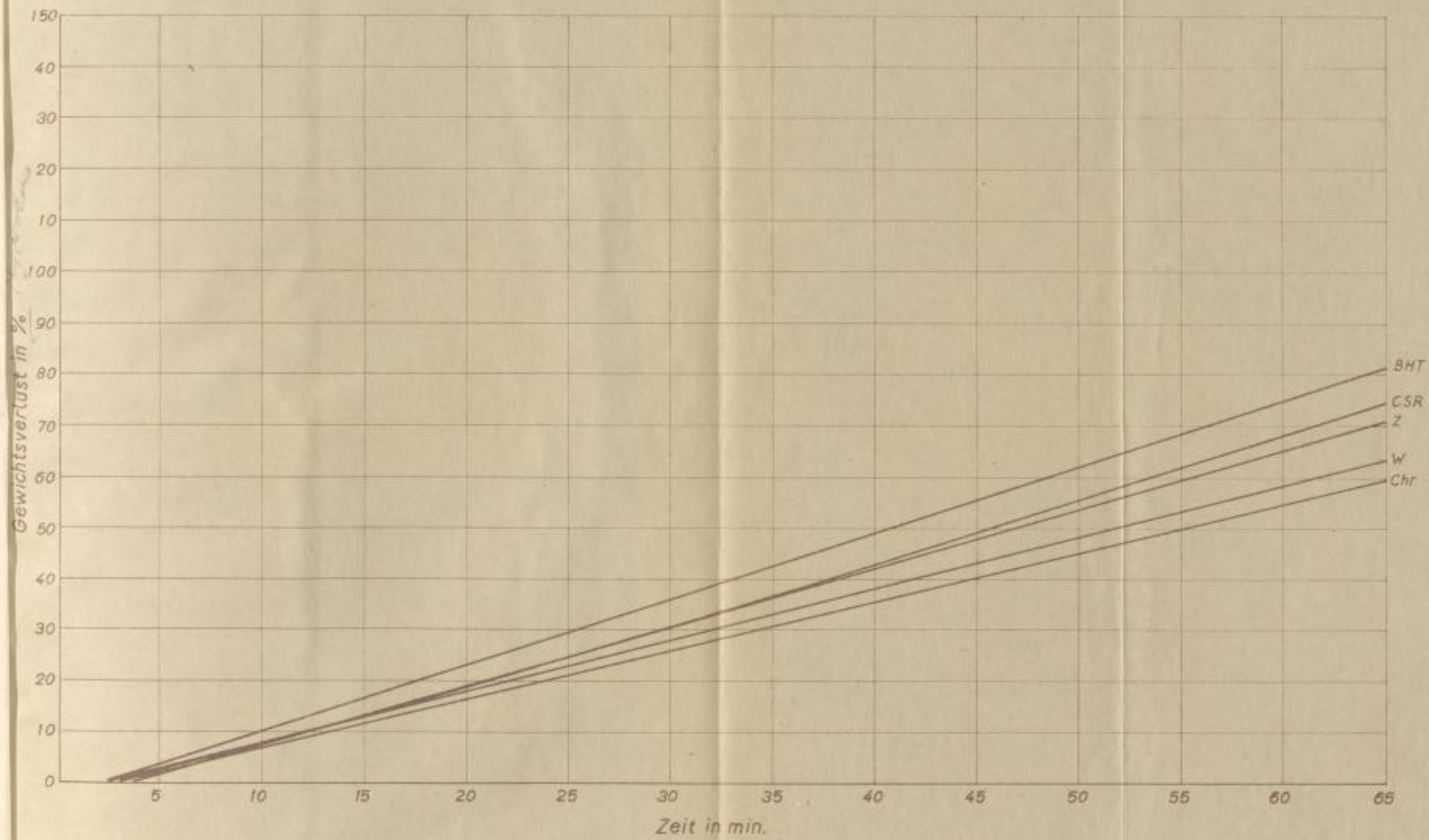


Bild 20: Trennscheibe

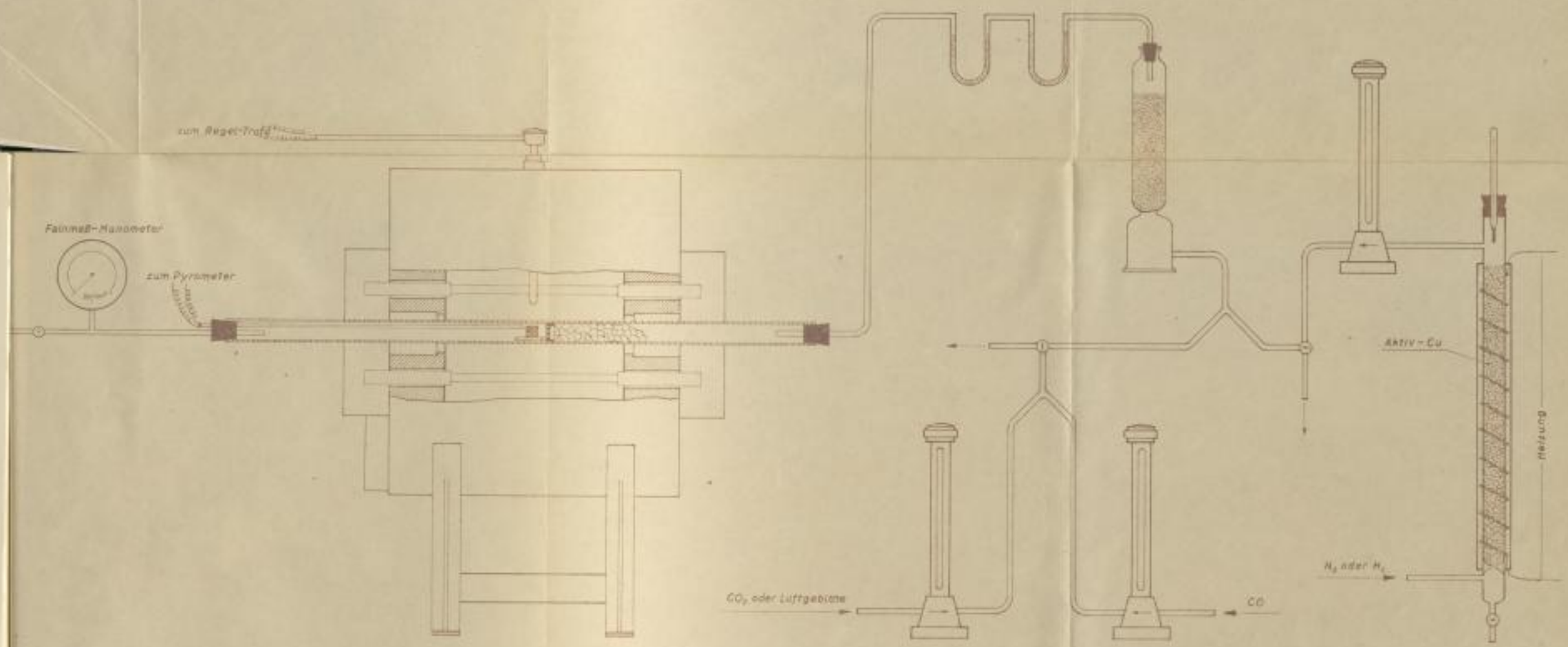



Bild 21. Versuchsapparatur zur Ermittlung der Reaktionsfähigkeit von Koks

Bild 22. Gewichtsverlust des BHT-Kokses durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

Bild 22. Gewichtsverlust des BHT-Kokses durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

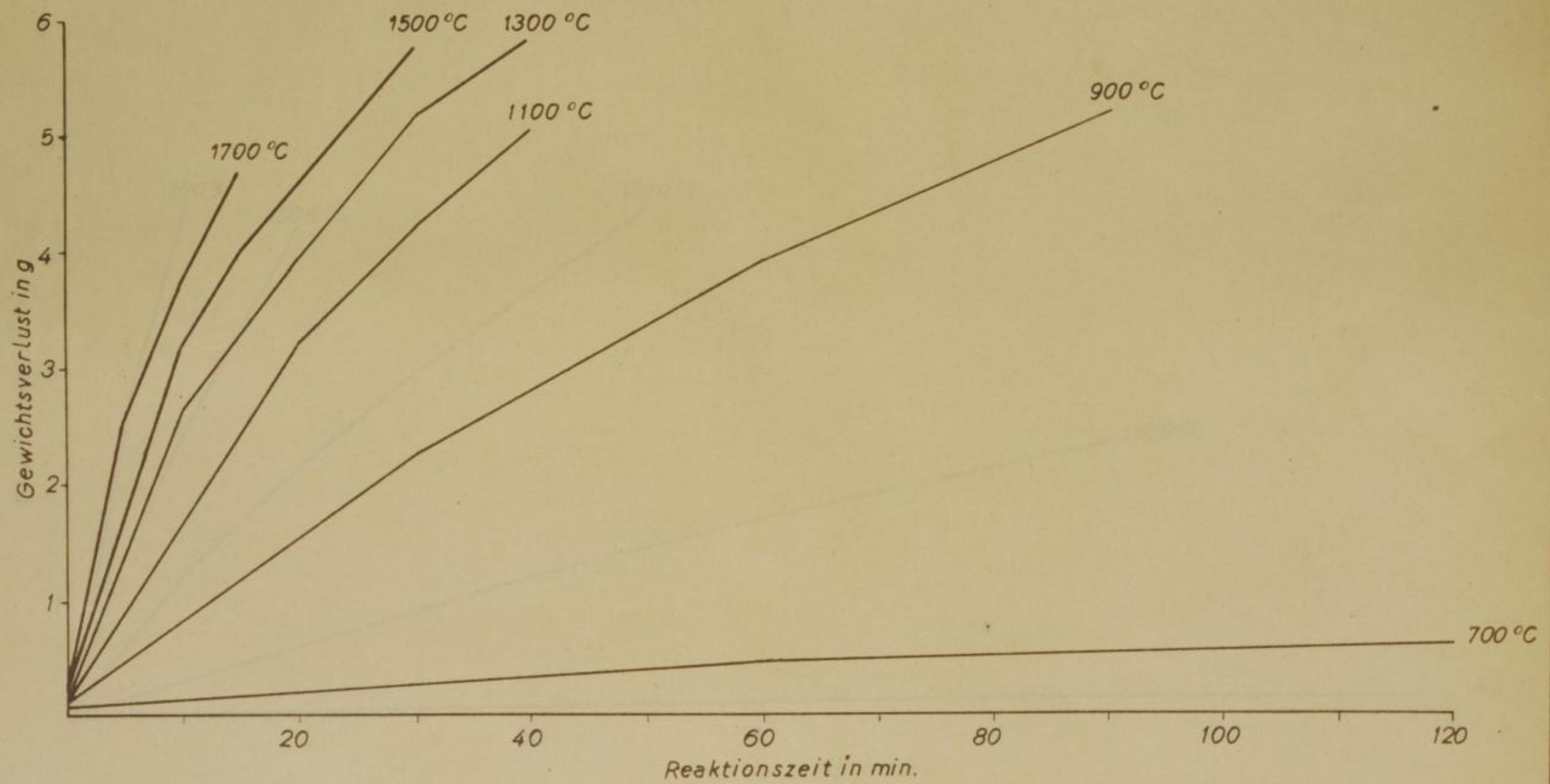


Bild 23. Gewichtsverlust des Westrahlkoks durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

Bild 23. Gewichtsverlust des Westfälischen Kokses durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

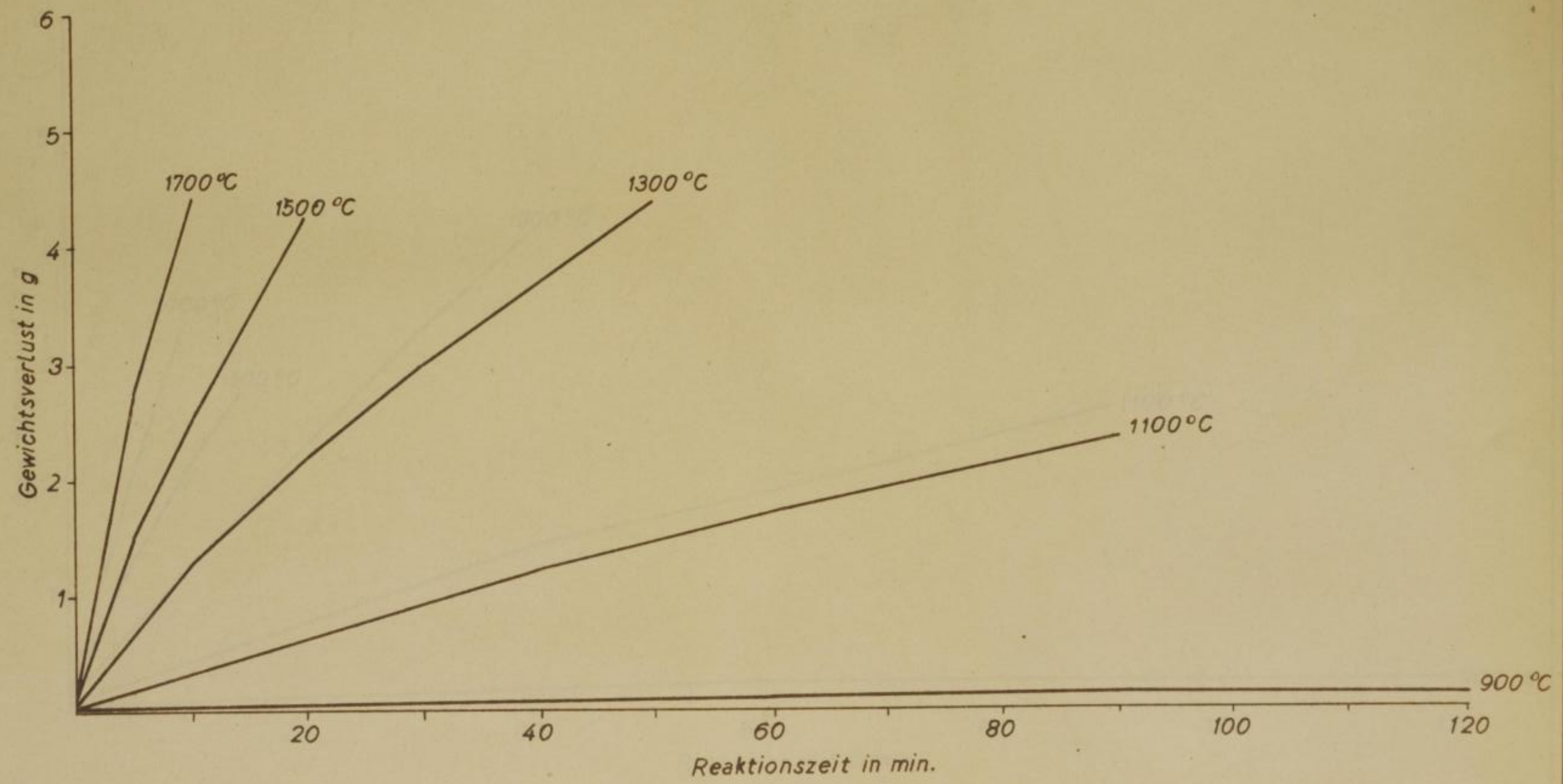


Bild. 24. Gewichtsverlust des Polnischen Kokses durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

Bild. 24. *Gewichtsverlust des Polnischen Kokses durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit*

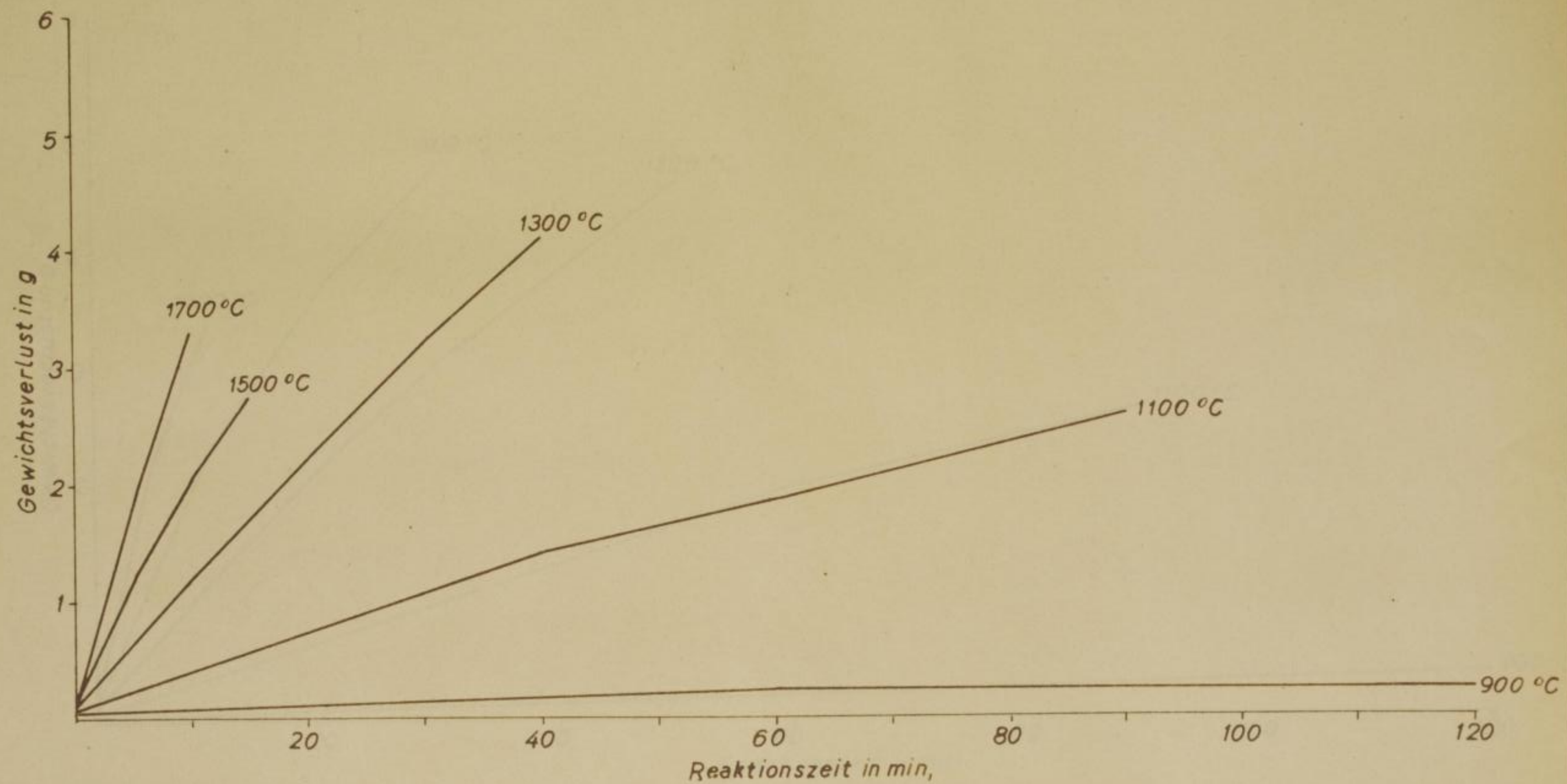


Bild 25. Gewichtsverlust des Tschechischen Kokses durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

Bild 25. Gewichtsverlust des Tschechischen Kokses durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

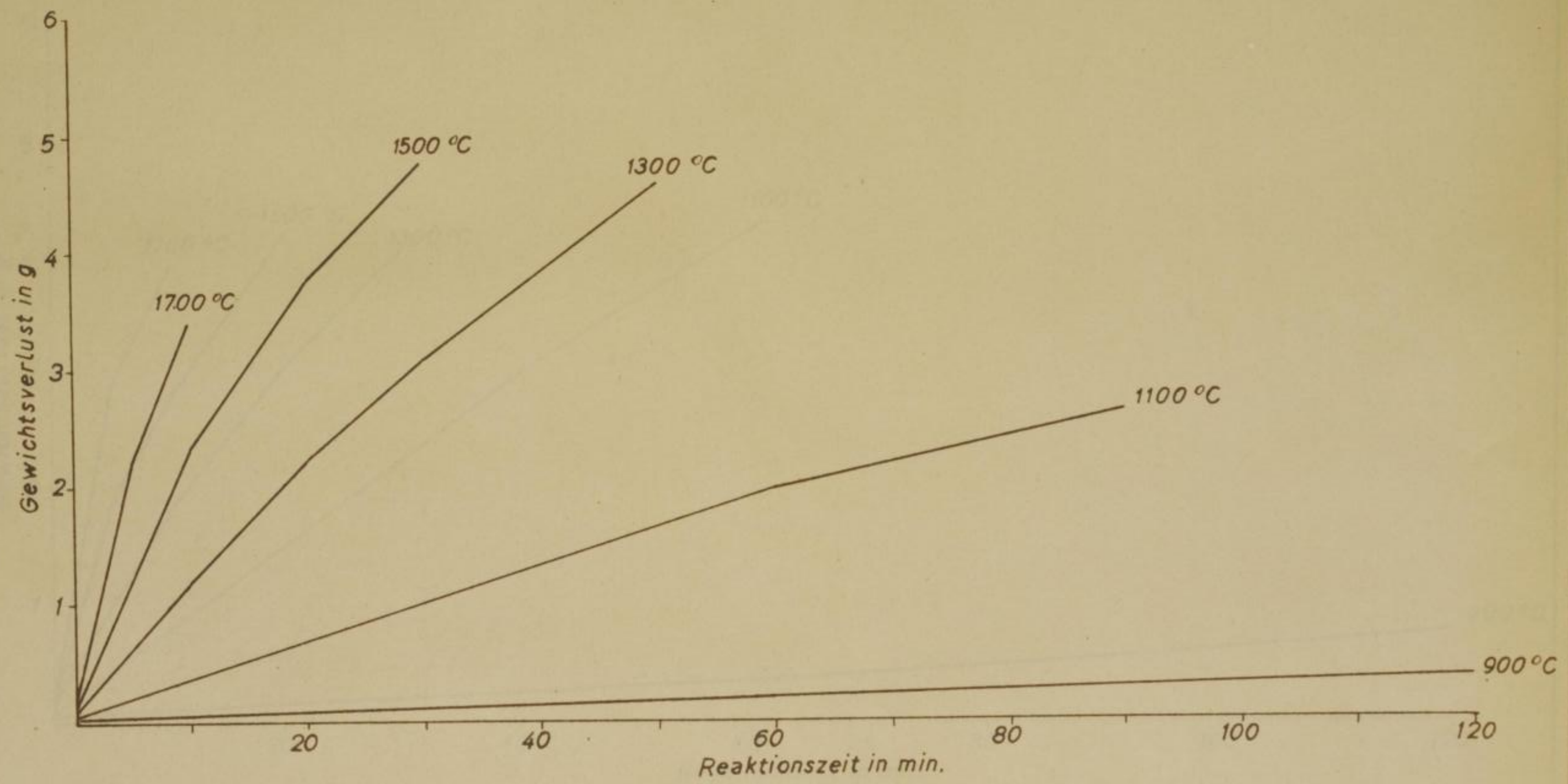


Bild 26. Gewichtsverlust des Zwickauer Koksesen in Abhängigkeit von der Temperatur bei verschiedenen Reaktionszeiten durch Reaktion mit $CO_2$

Bild 26. Gewichtsverlust des Zwickauer Kokses durch Reaktion mit $CO_2$ bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

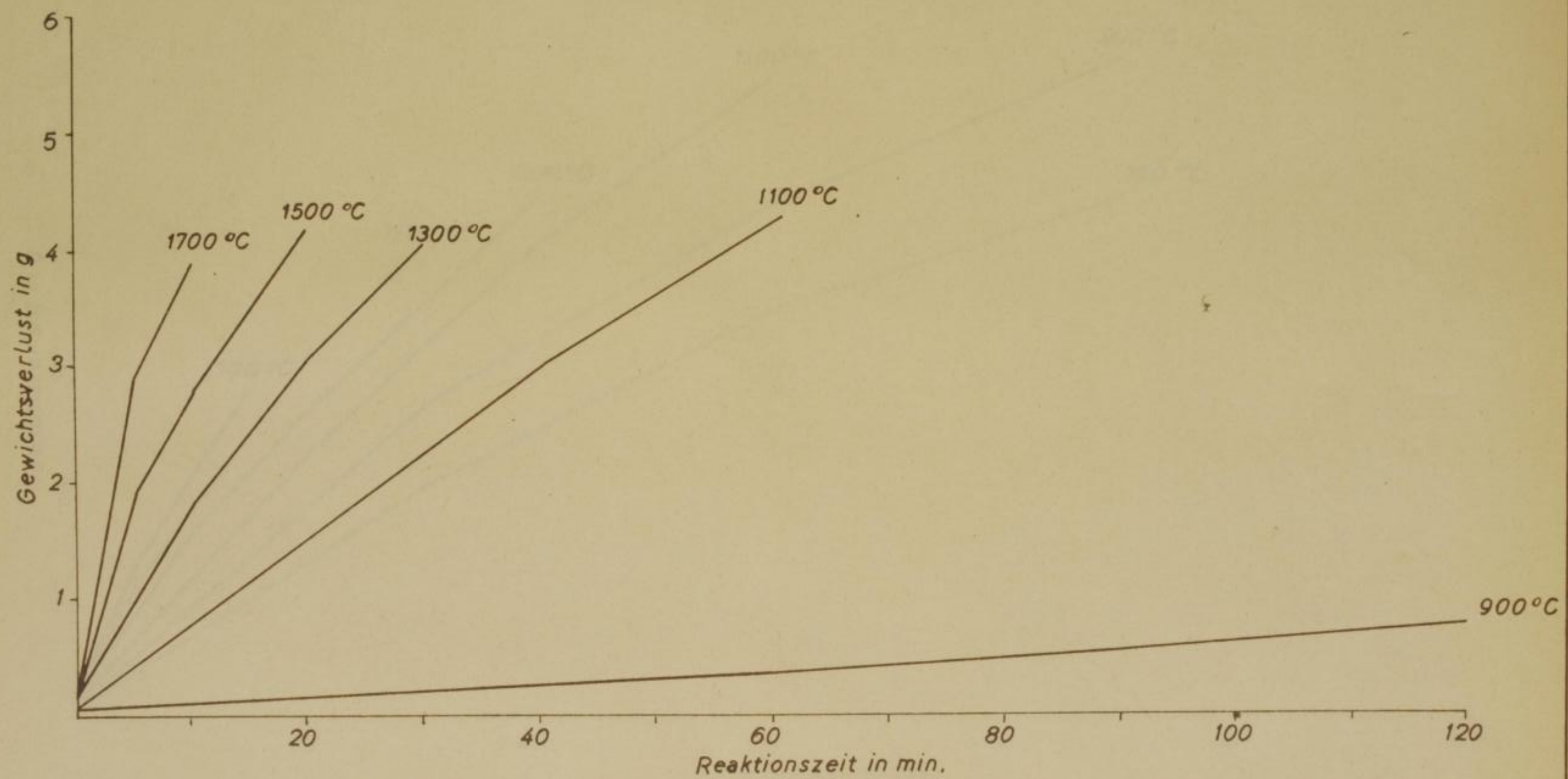


Bild 27. Gewichtsverlust des BHT-Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

Bild 27. Gewichtsverlust des BHT-Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

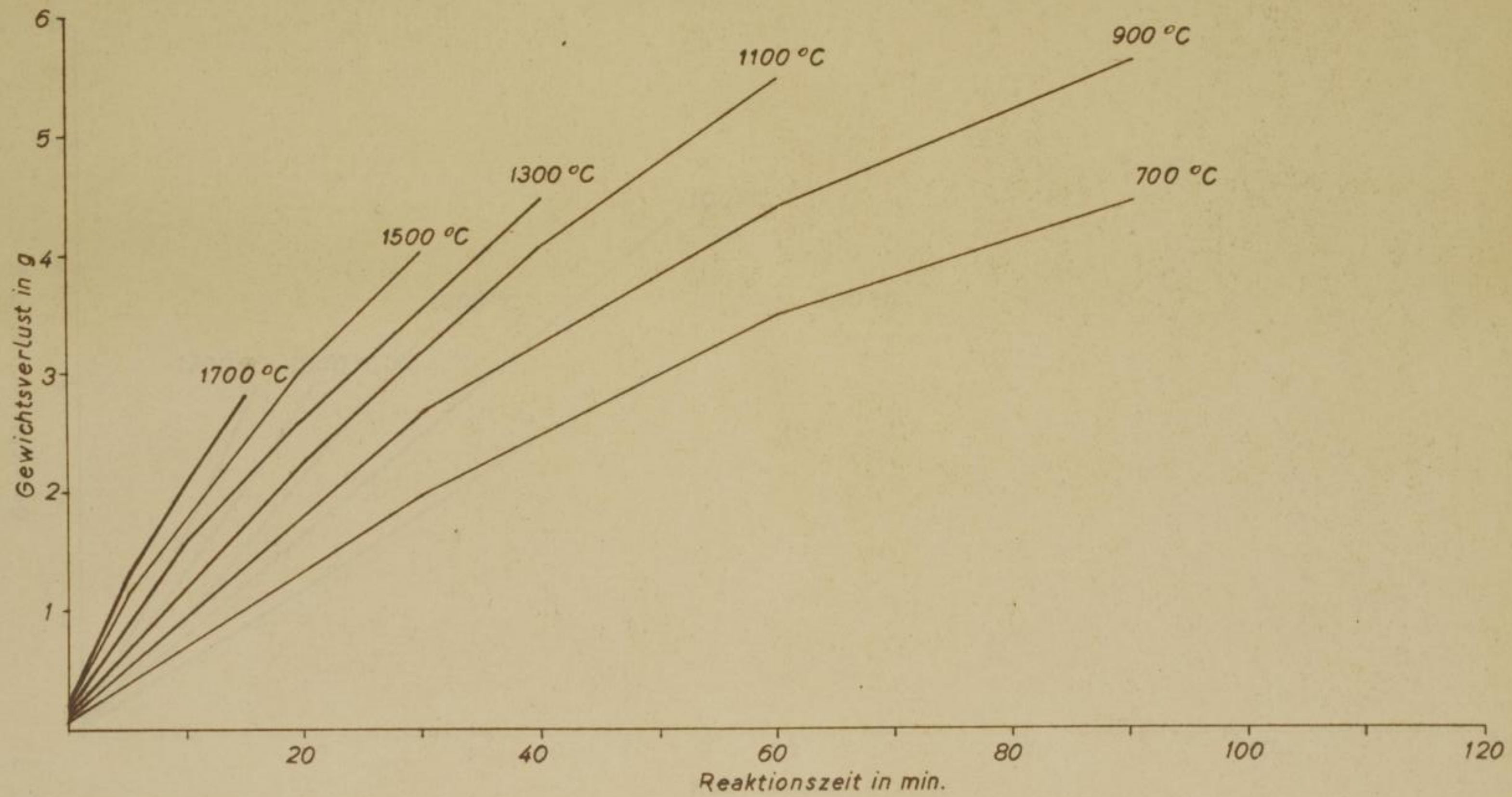


Bild 28. Gewichtsverlust des Westfälischen Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

Bild 28. Gewichtsverlust des Westfälischen Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

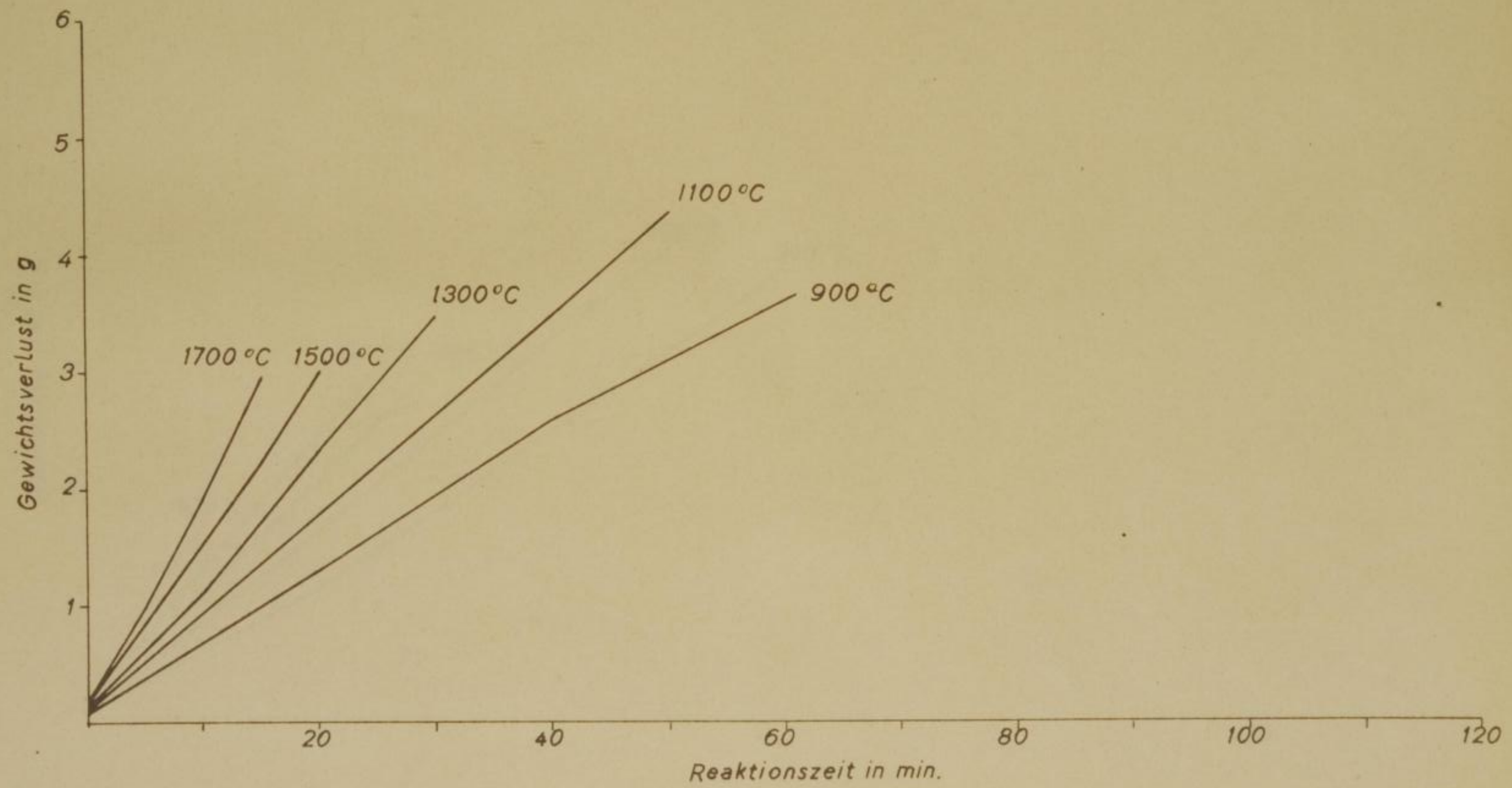


Bild 29. Gewichtsverlust des Polnischen Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

Bild 29. Gewichtsverlust des Polnischen Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

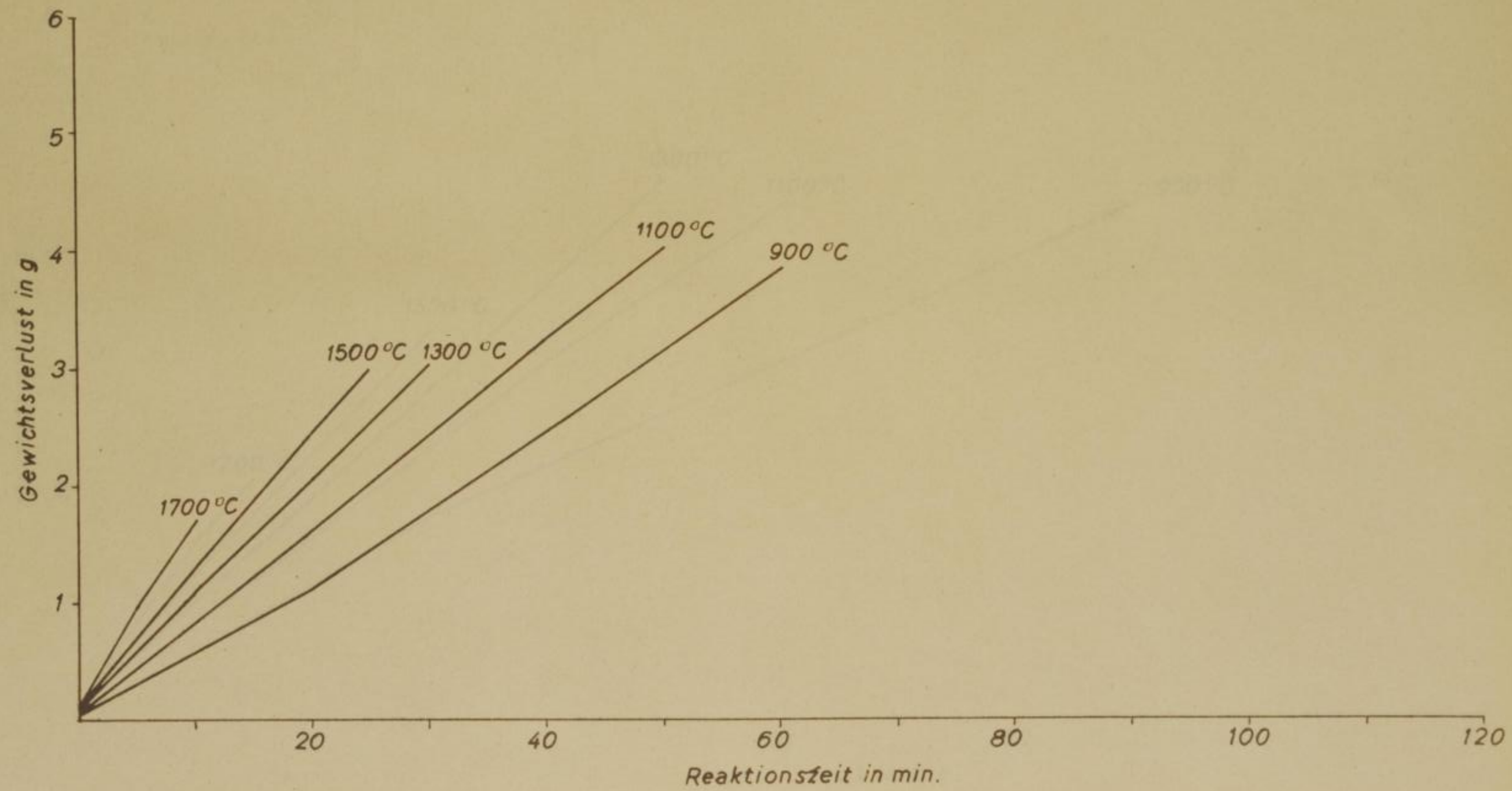


Bild 30. Gewichtsverlust des Tschechischen Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

Bild 30. Gewichtsverlust des Tschechischen Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

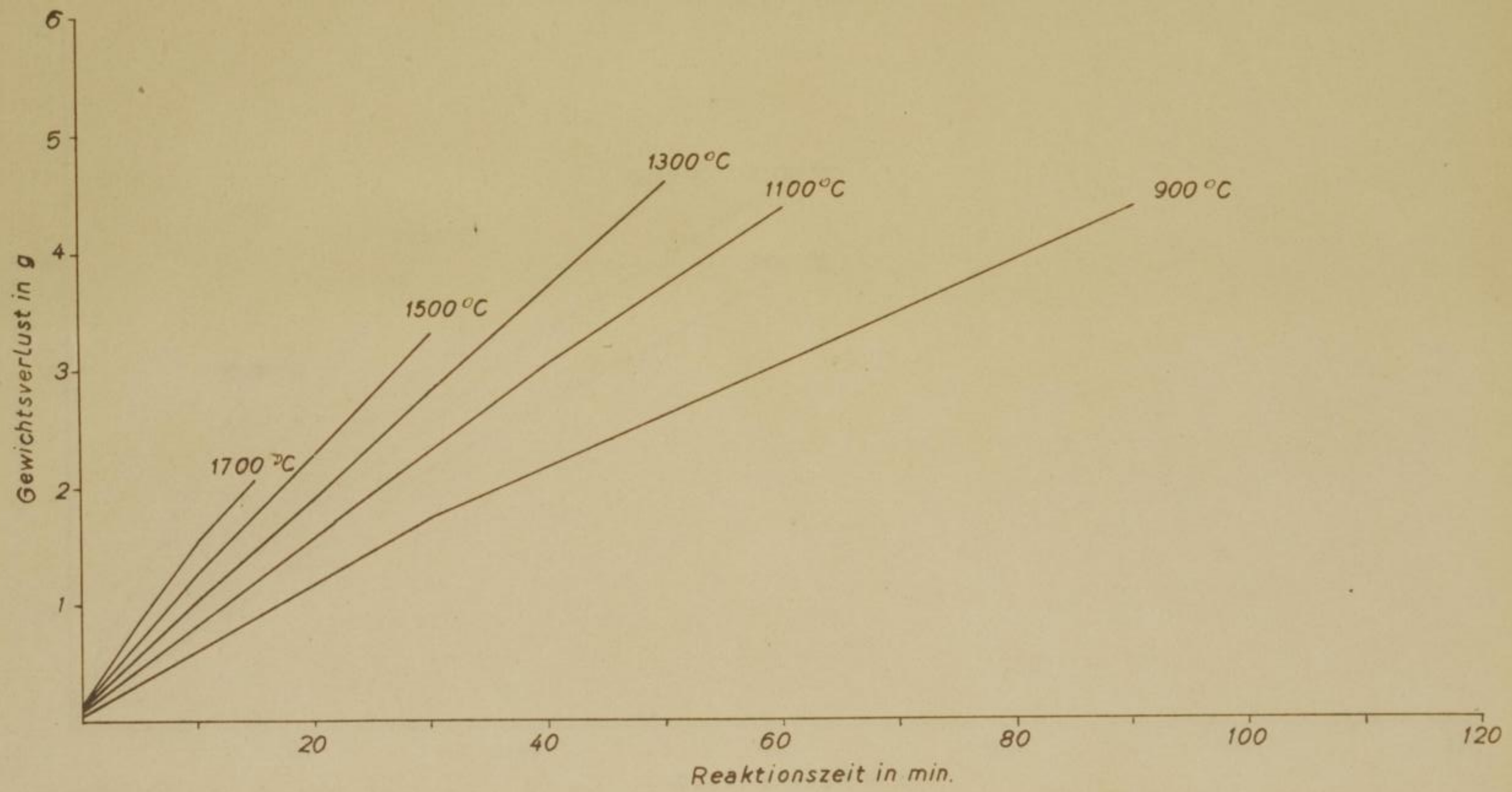


Bild 31. Gewichtsverlust des Zwickauer Kokses durch Reaktion mit Luft bei verschiedenen Zeiten

Bild 31. Gewichtsverlust des Zwickauer Kokses durch Reaktion mit Luft bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

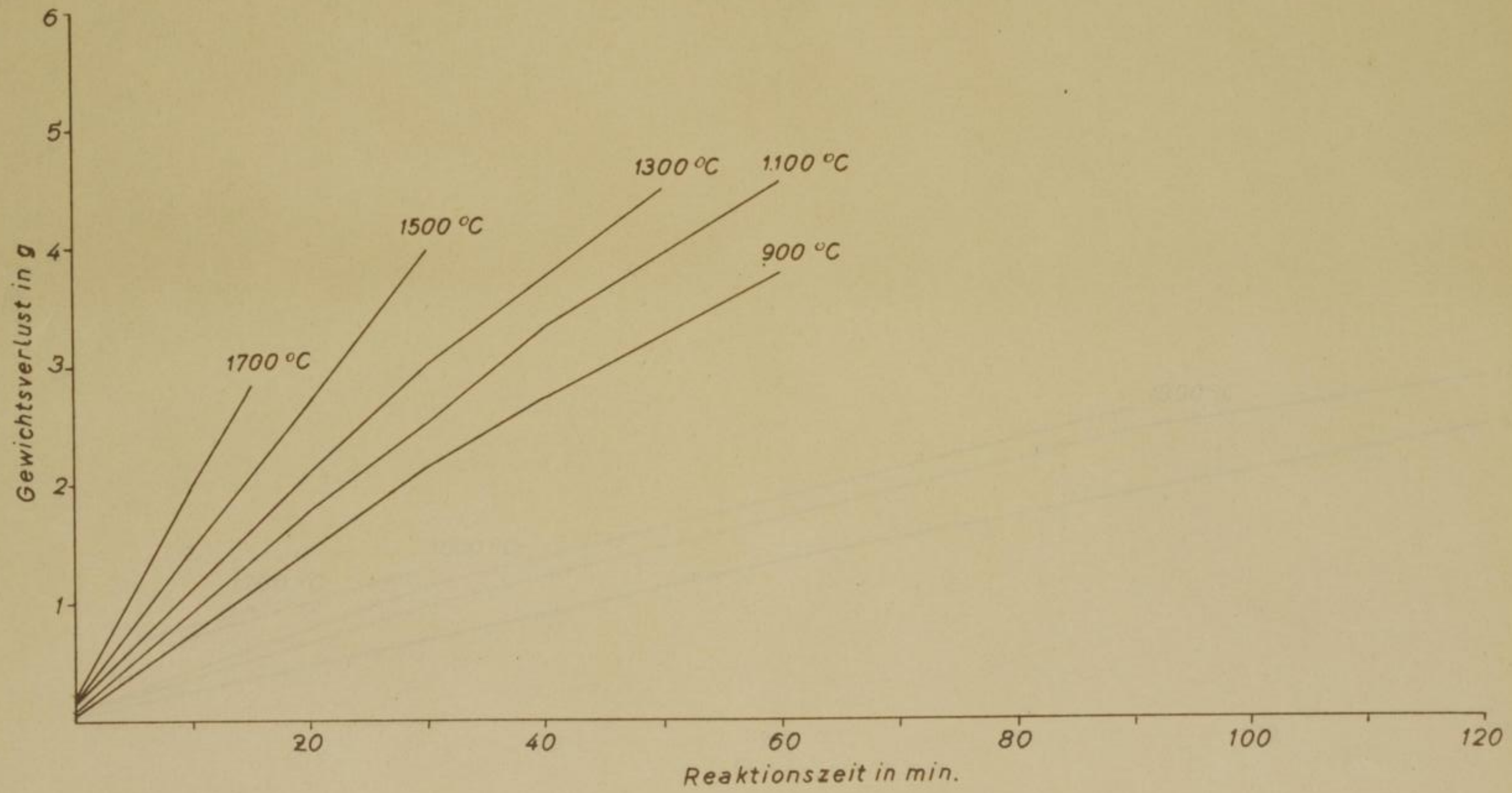


Bild 32. Gewichtsverlust des BHT-Koksses durch Reaktion mit Lichtgas bei verschiedenen Zeiten

Bild 32. Gewichtsverlust des BHT-Kokses durch Reaktion mit Gichtgas bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

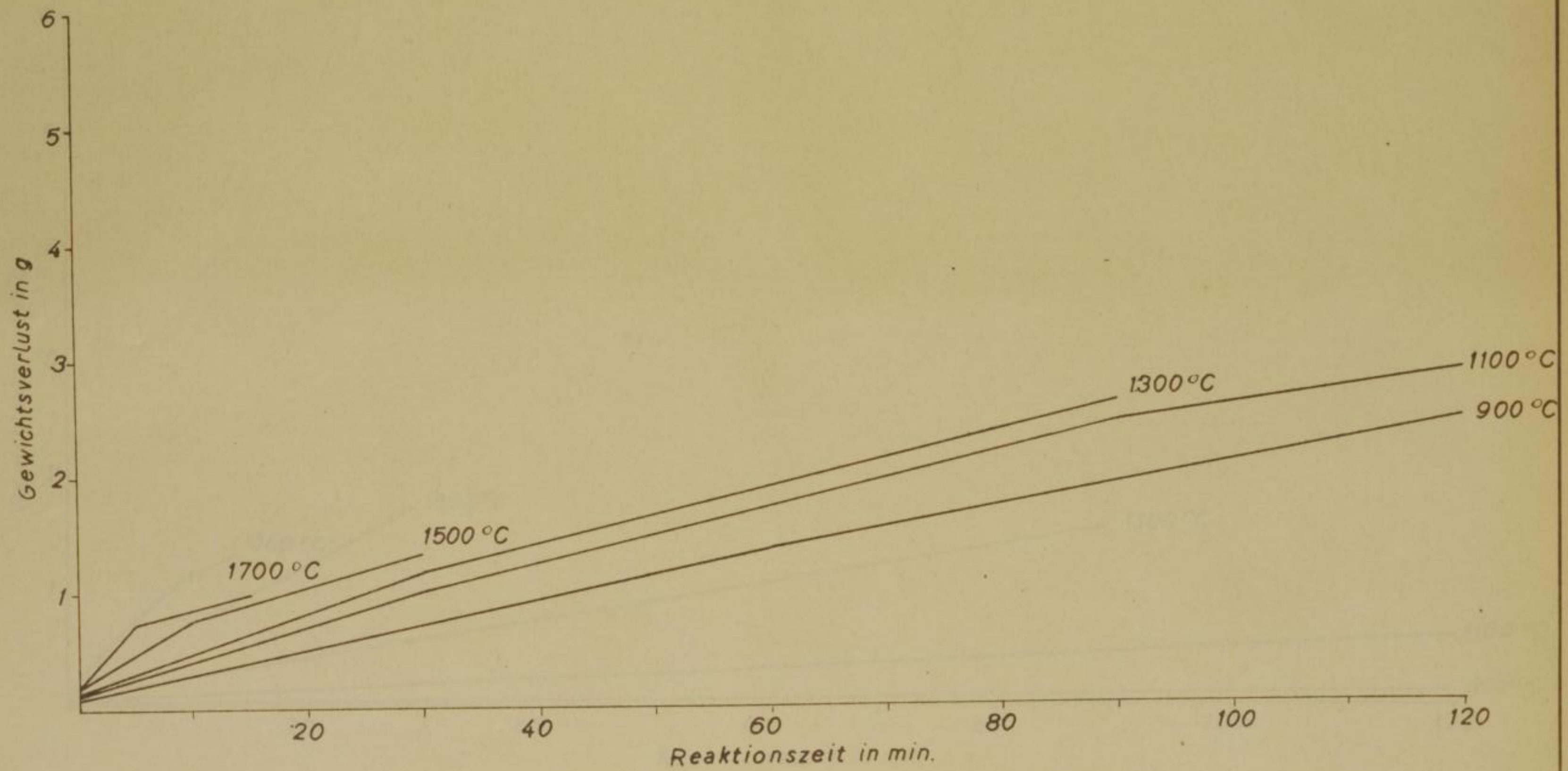


Bild 33. Gewichtsverlust des Westfälischen Kokses durch Reaktion mit Gichtgas bei verschiedenen Zeit

Bild 33. Gewichtsverlust des Westfälischen Kokses durch Reaktion mit Gichtgas bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

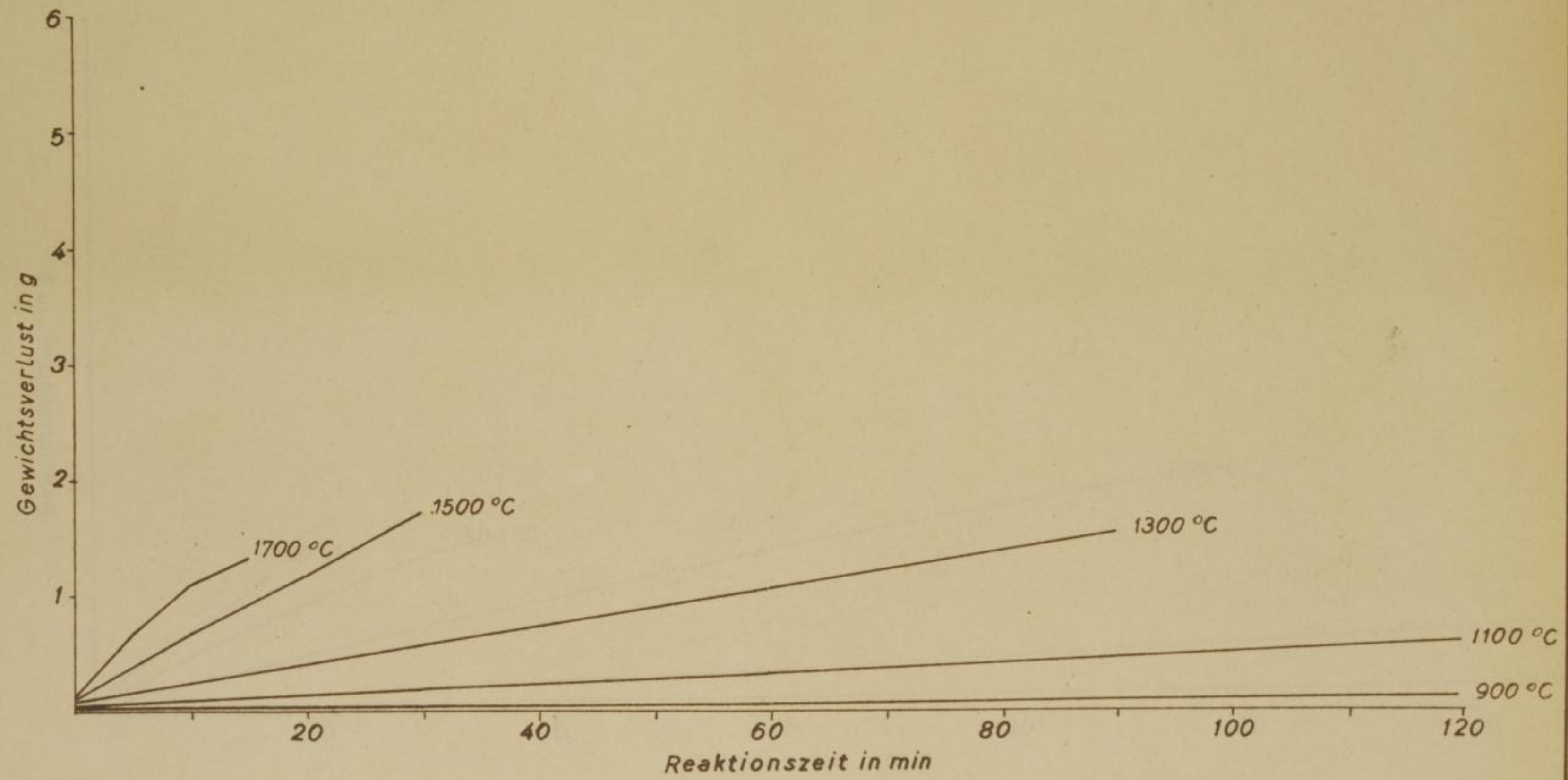


Bild 34. Gewichtsverlust des Polnischen Kokses durch Reaktion mit Gichtgasen in Abhängigkeit von der Zeit bei verschiedenen Temperaturen

Bild 34. Gewichtsverlust des Polnischen Kokses durch Reaktion mit Gichtgas bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

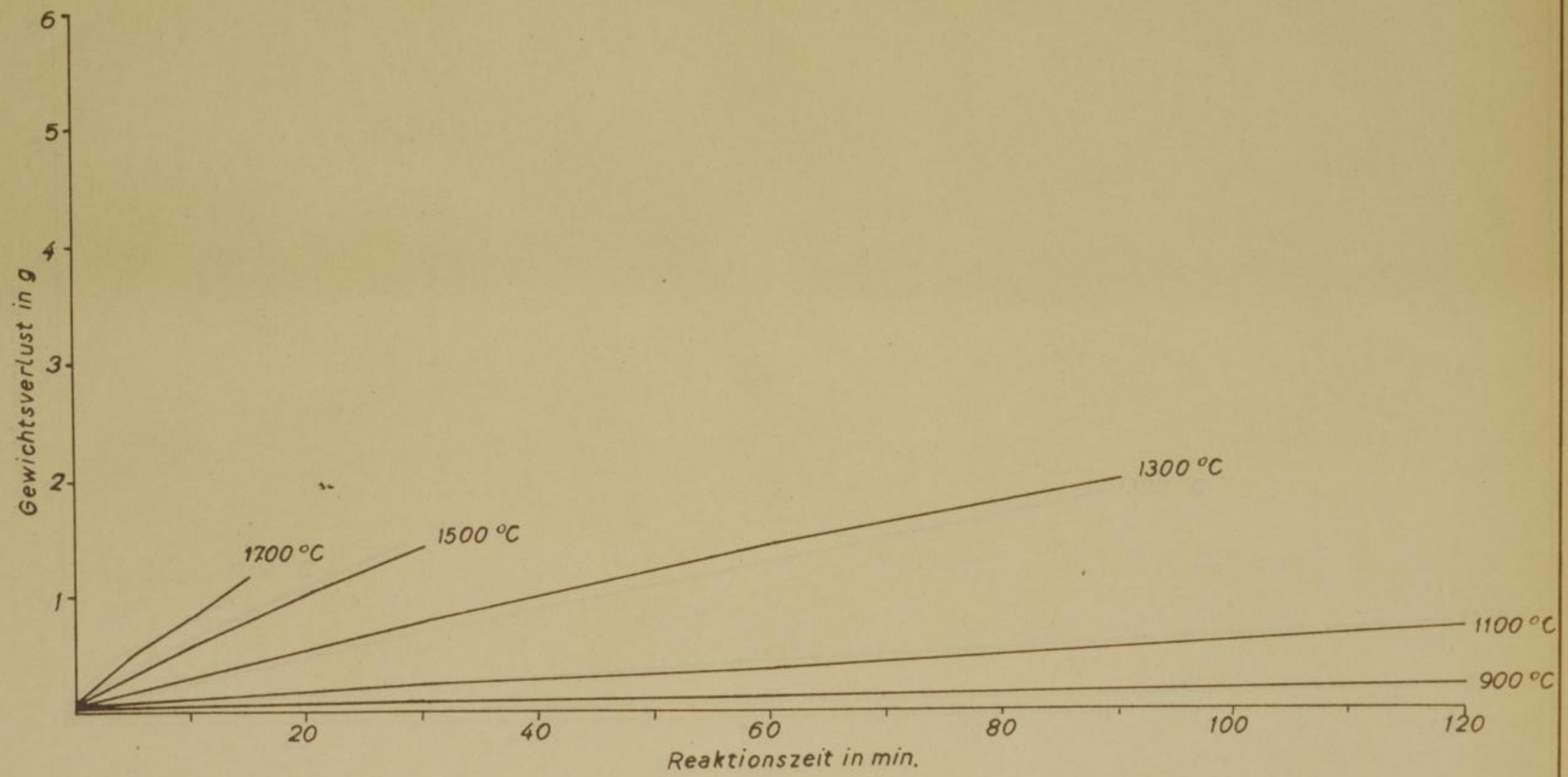


Bild 35. Gewichtsverlust des Tschechischen Kokses durch Reaktion mit Eichgas bei verschiedenen Zeit- und Temperaturbedingungen

Bild 35. Gewichtsverlust des Tschechischen Kokses durch Reaktion mit Gichtgas bei verschiedenen Temperaturen in Abhängigkeit von der Zeit

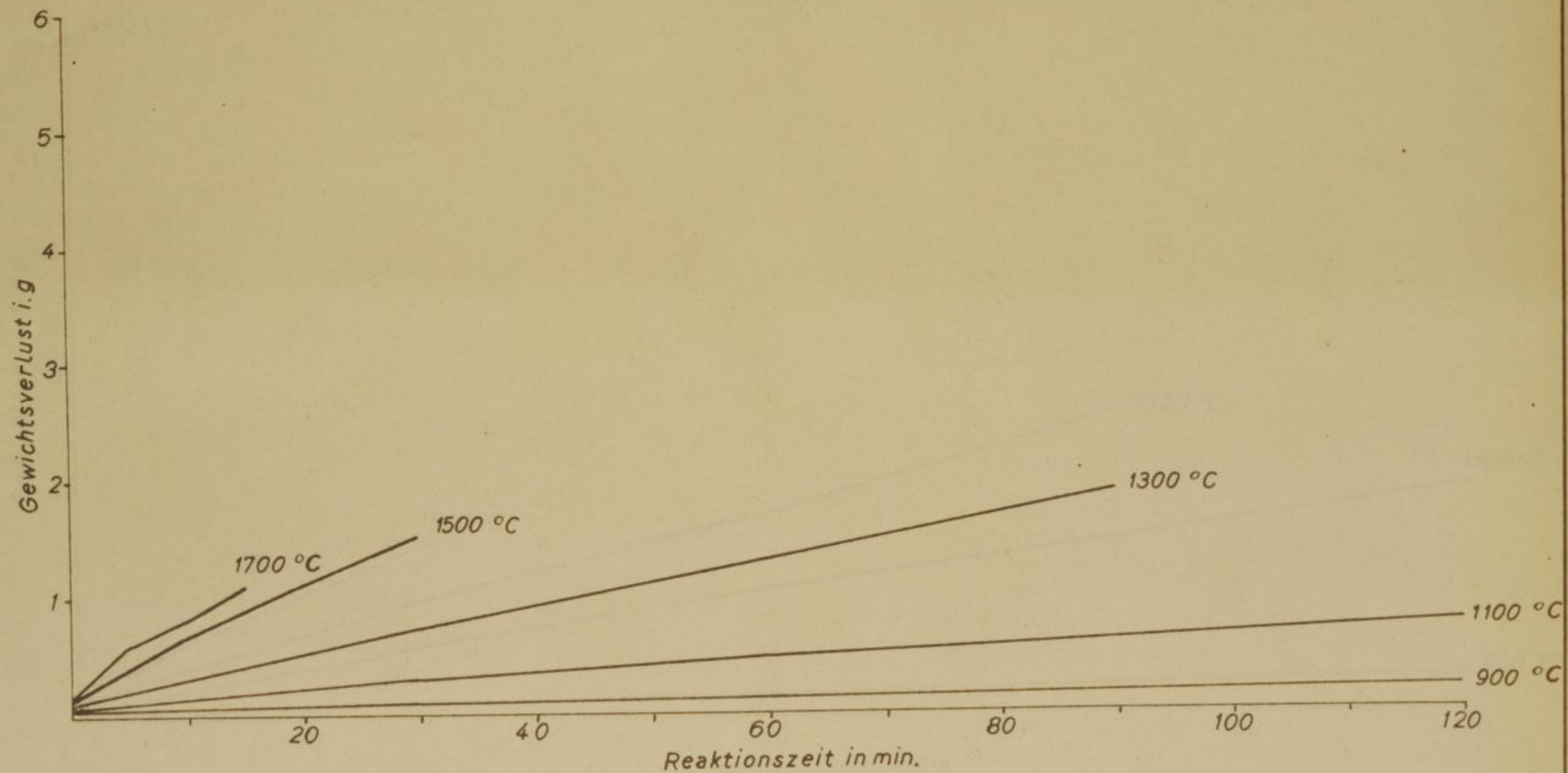


Bild 36. Gewichtsverlust des Zwickauer Kokses durch Reaktion mit Gichtgas bei verschienen

Bild 36. Gewichtsverlust des Zwickauer Kokses durch Reaktion mit Gichtgas bei verschienen Temperaturen in Abhängigkeit von der Zeit

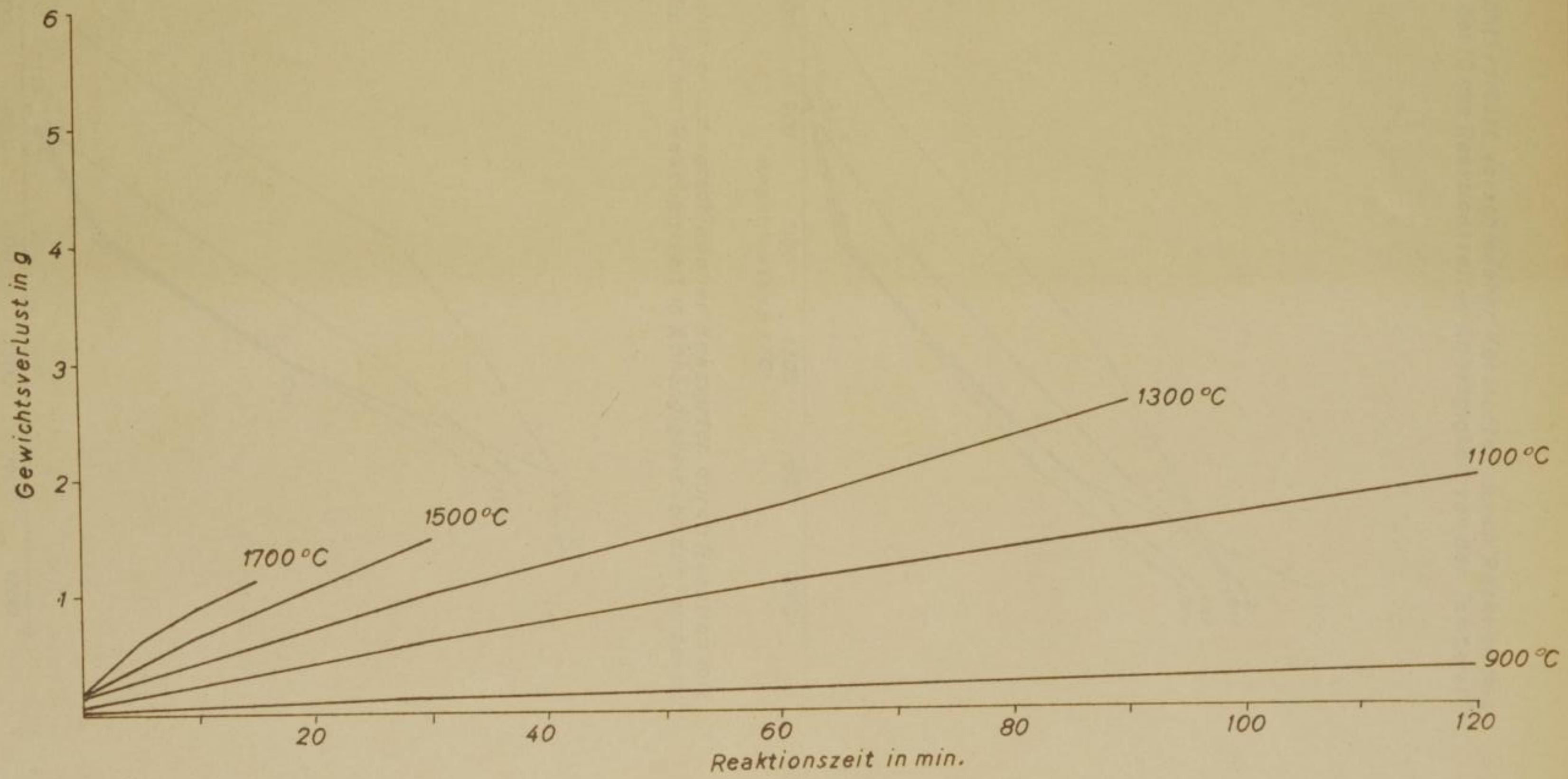


Bild 37. Gewichtsverlust verschiedener Kokssorten durch Reaktion mit $CO_2$ bei 10 min Reaktionszeit in Abhängigkeit von der Temperatur

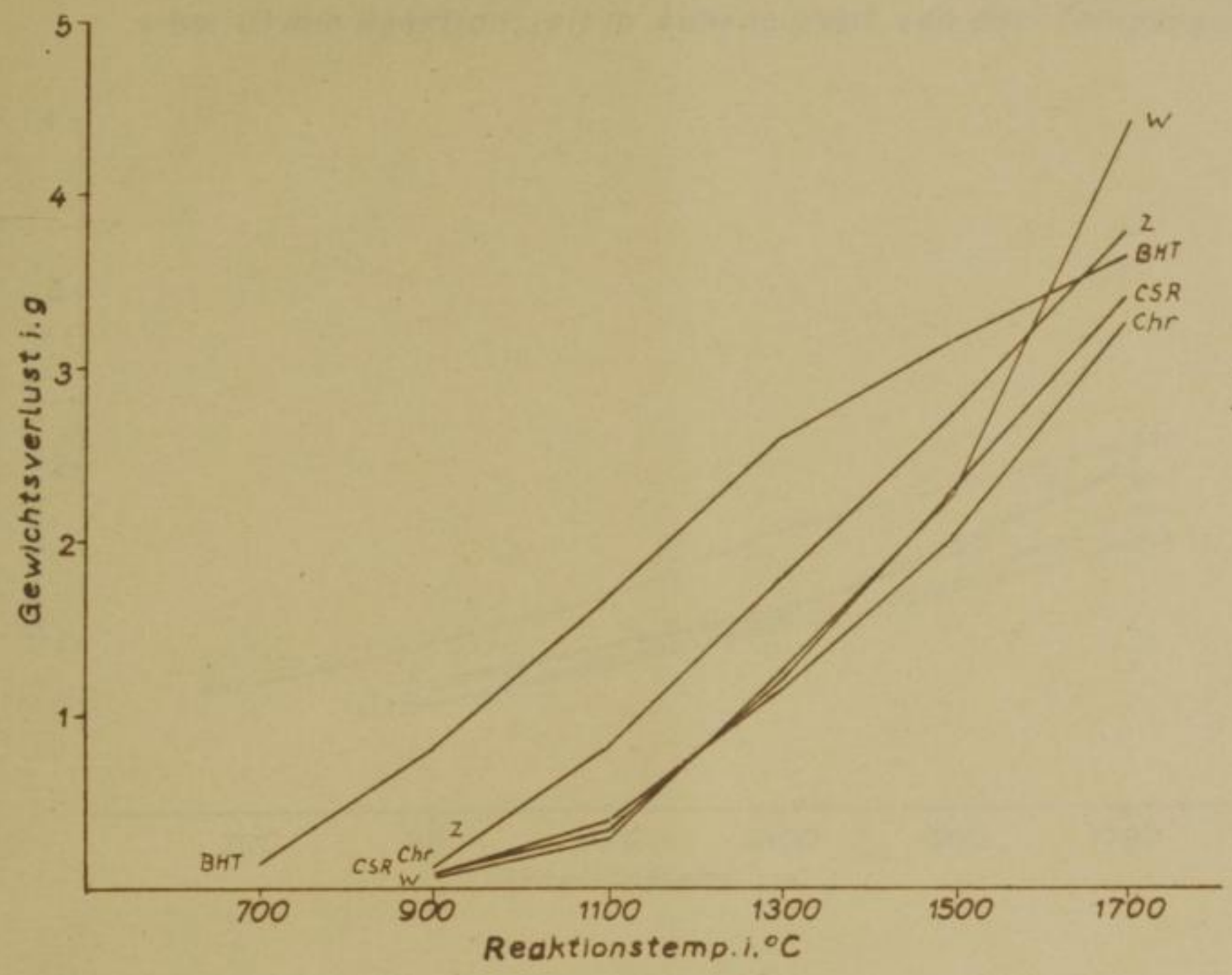



Bild 38. Gewichtsverlust verschiedener Kokssorten durch Reaktion mit $CO_2$ bei 20 min Reaktionszeit in Abhängigkeit von der Temperatur

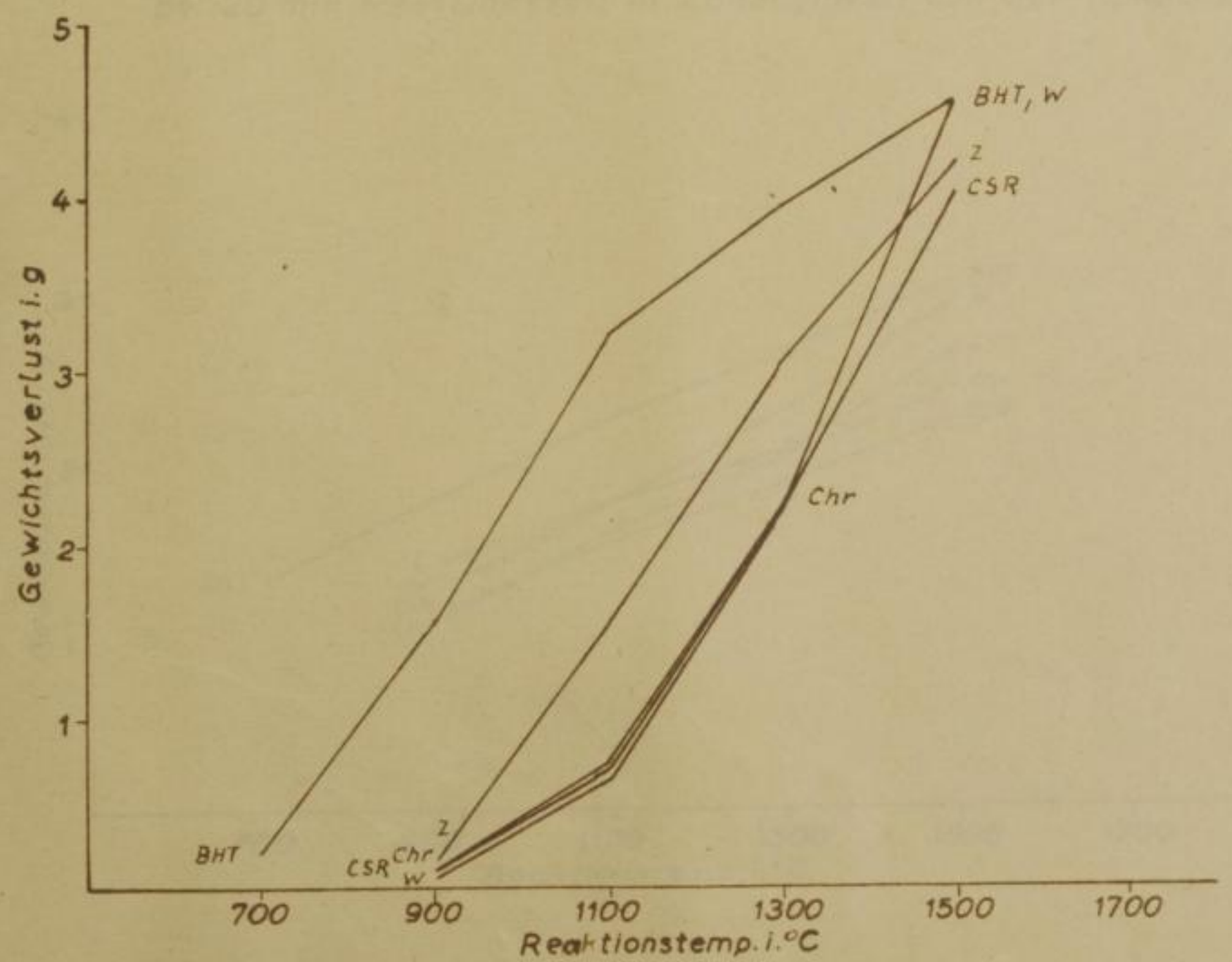


Bild 39. Gewichtsverlust verschiedener Kokssorten durch Reaktion mit Luft bei 10 min Reaktionszeit in Abhängigkeit von der Temperatur

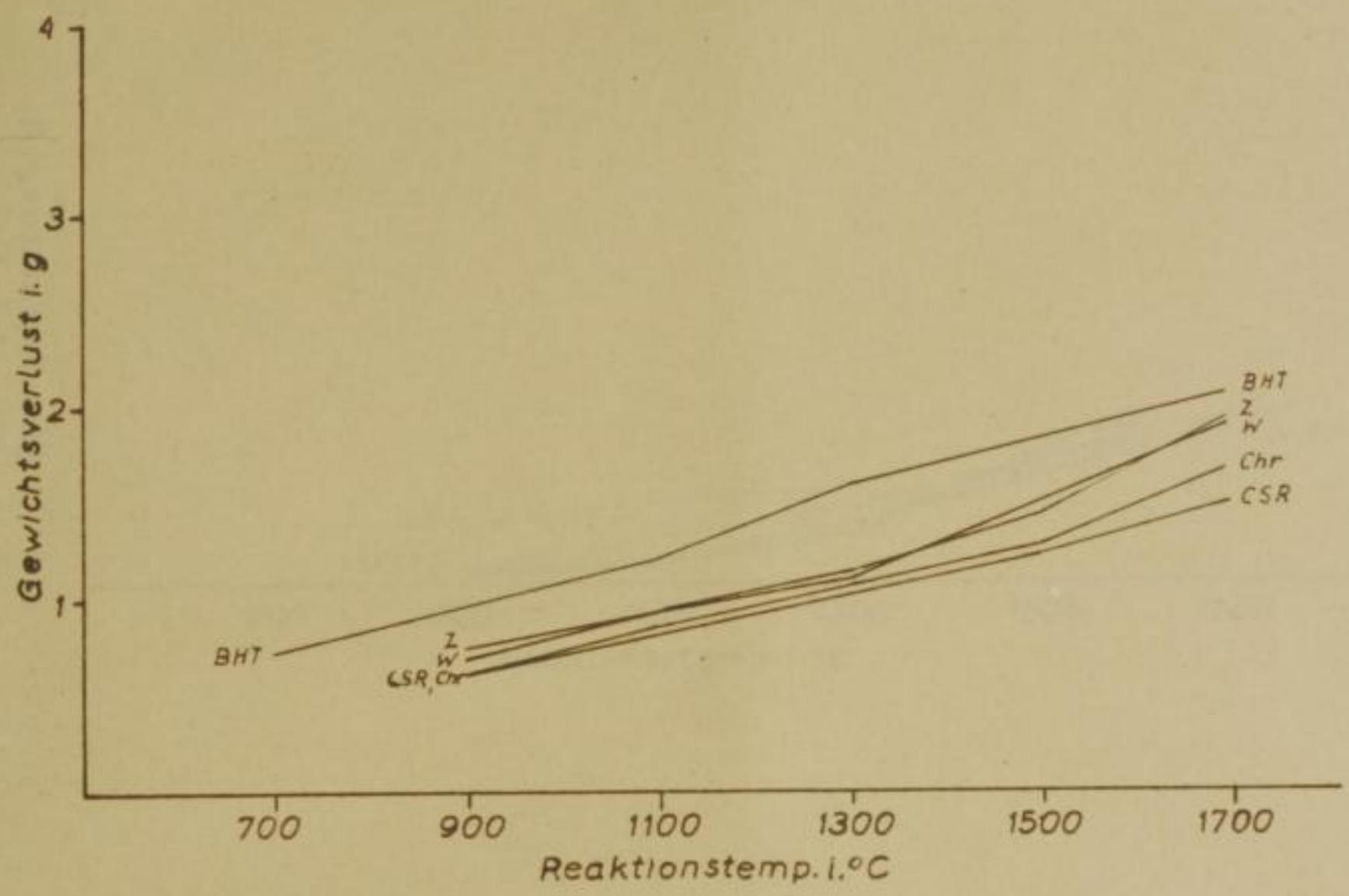



Bild 40. Gewichtsverlust verschiedener Kokssorten durch Reaktion mit Luft bei 20 min Reaktionszeit in Abhängigkeit von der Temperatur

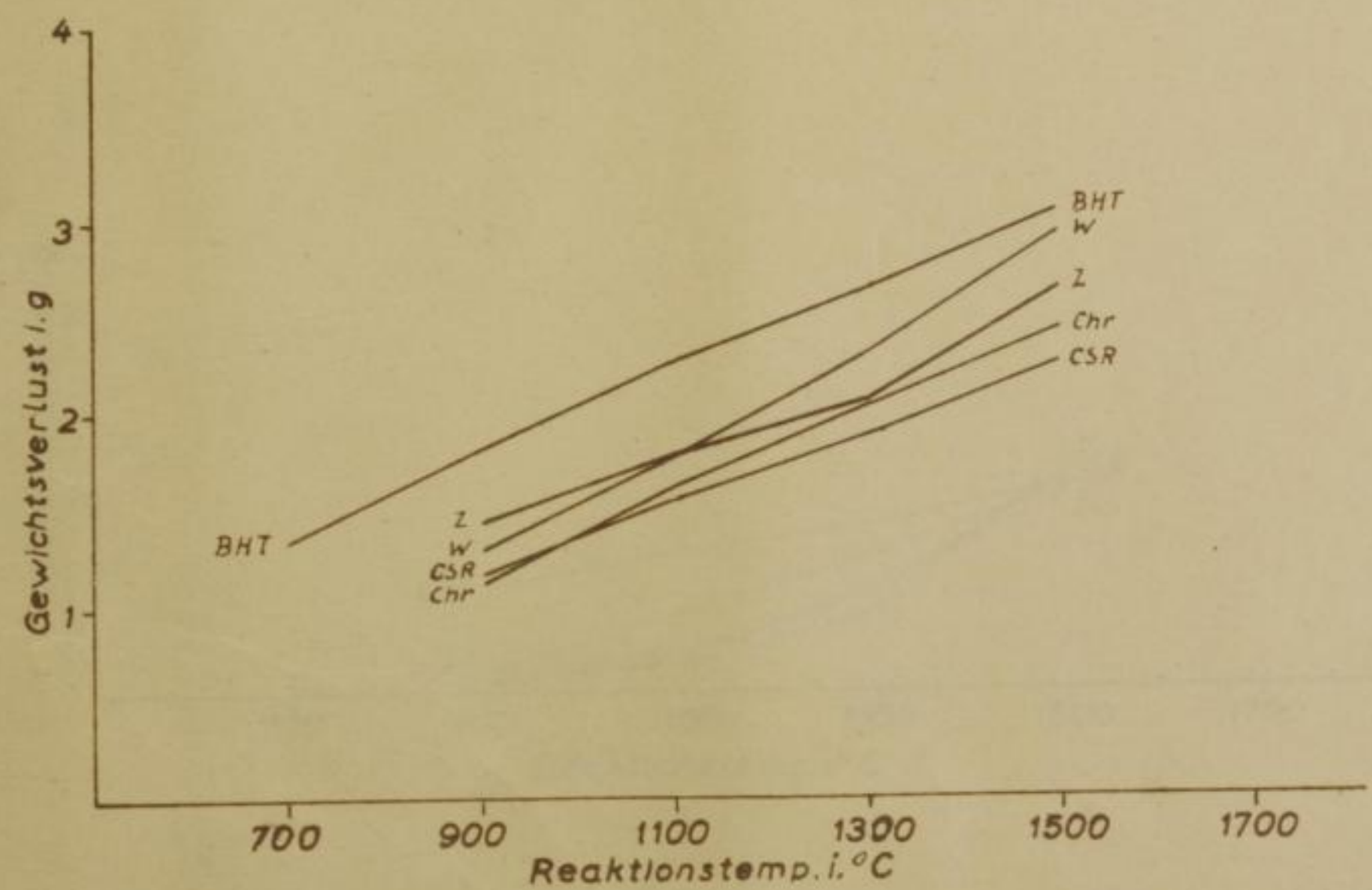


Bild 41. Gewichtsverlust verschiedener Kokssorten durch Reaktion mit Gichtgas bei 10 min Reaktionszeit in Abhängigkeit von der Temperatur

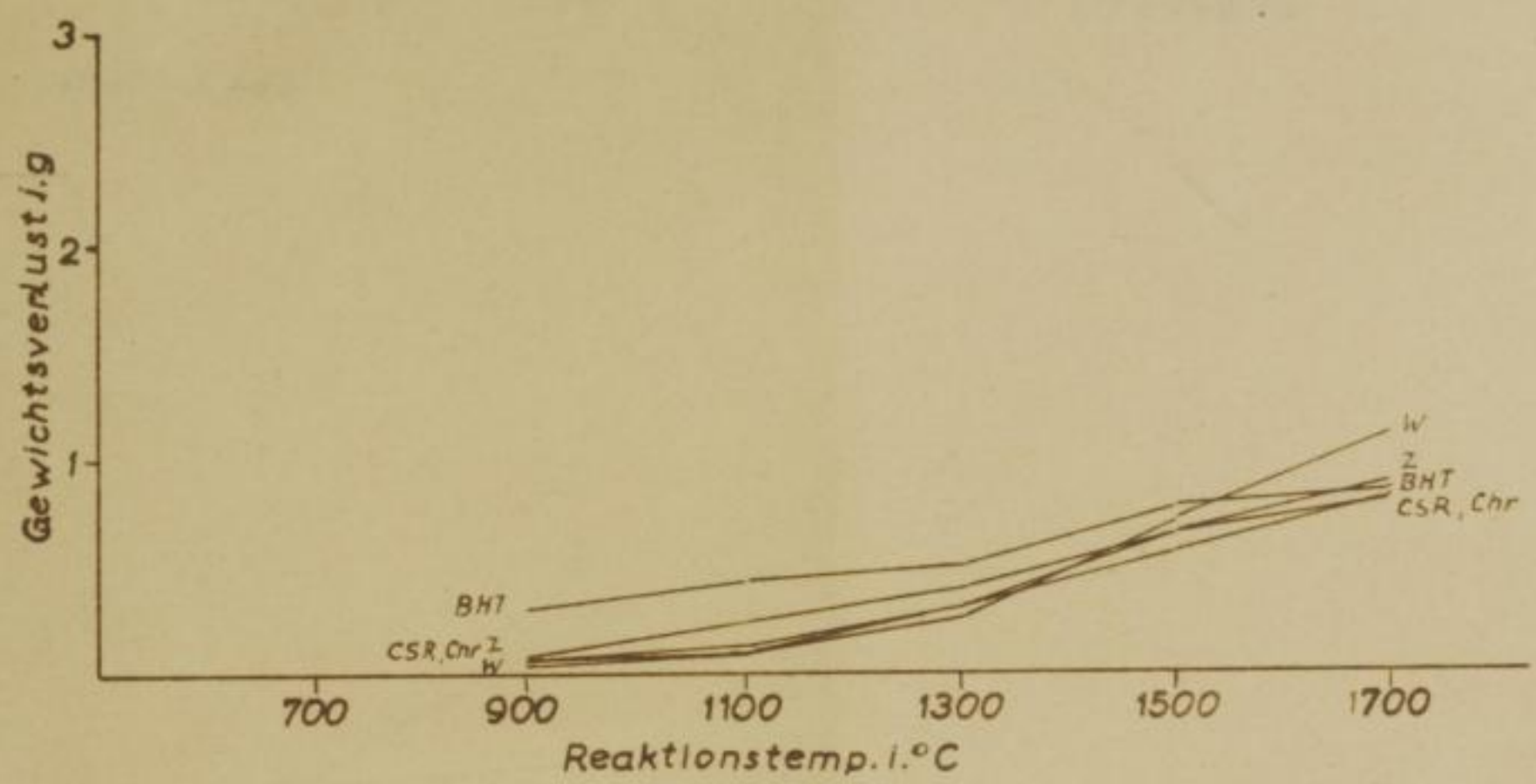



Bild 42. Gewichtsverlust verschiedener Kokssorten durch Reaktion mit Gichtgas bei 20 min Reaktionszeit in Abhängigkeit von der Temperatur

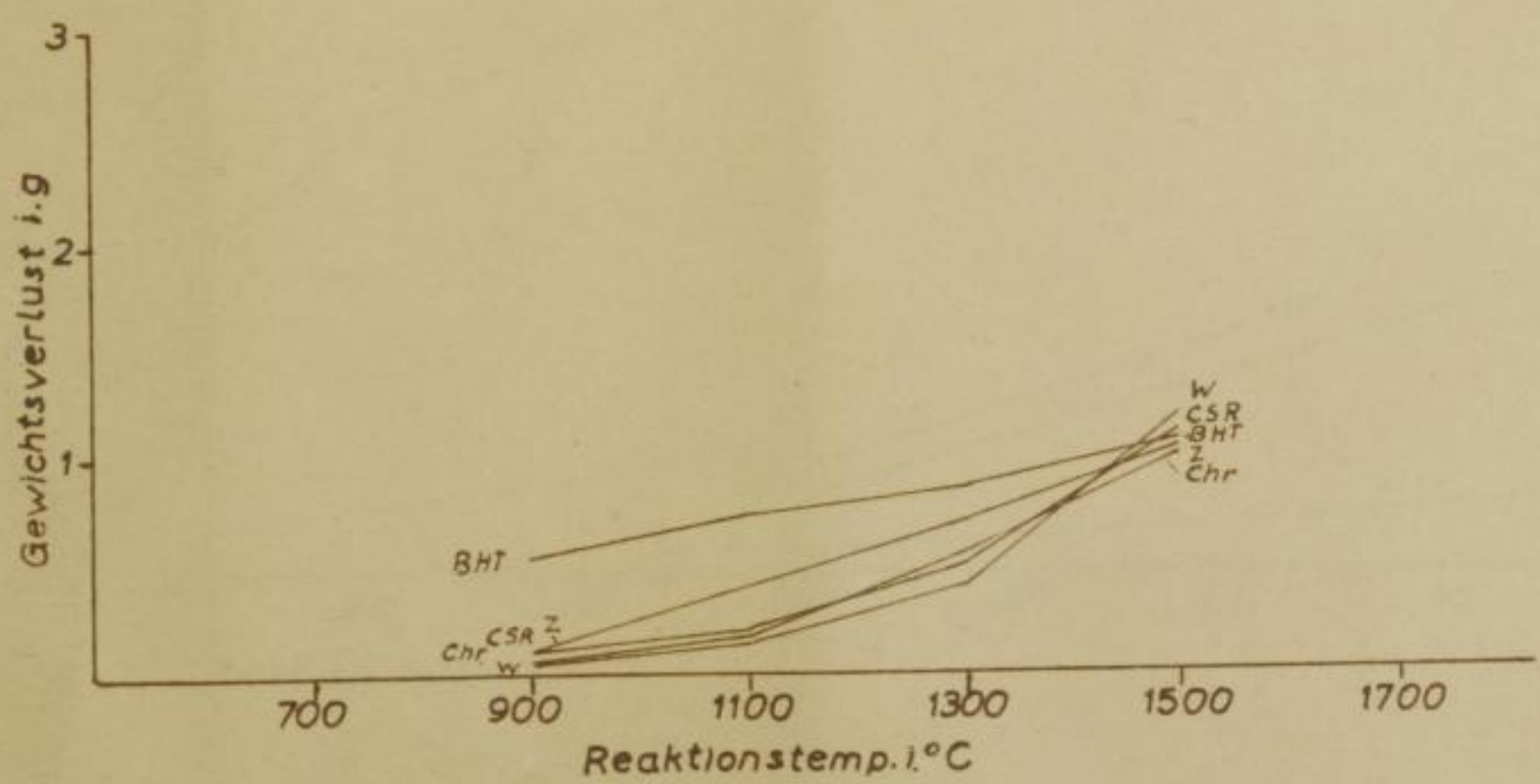
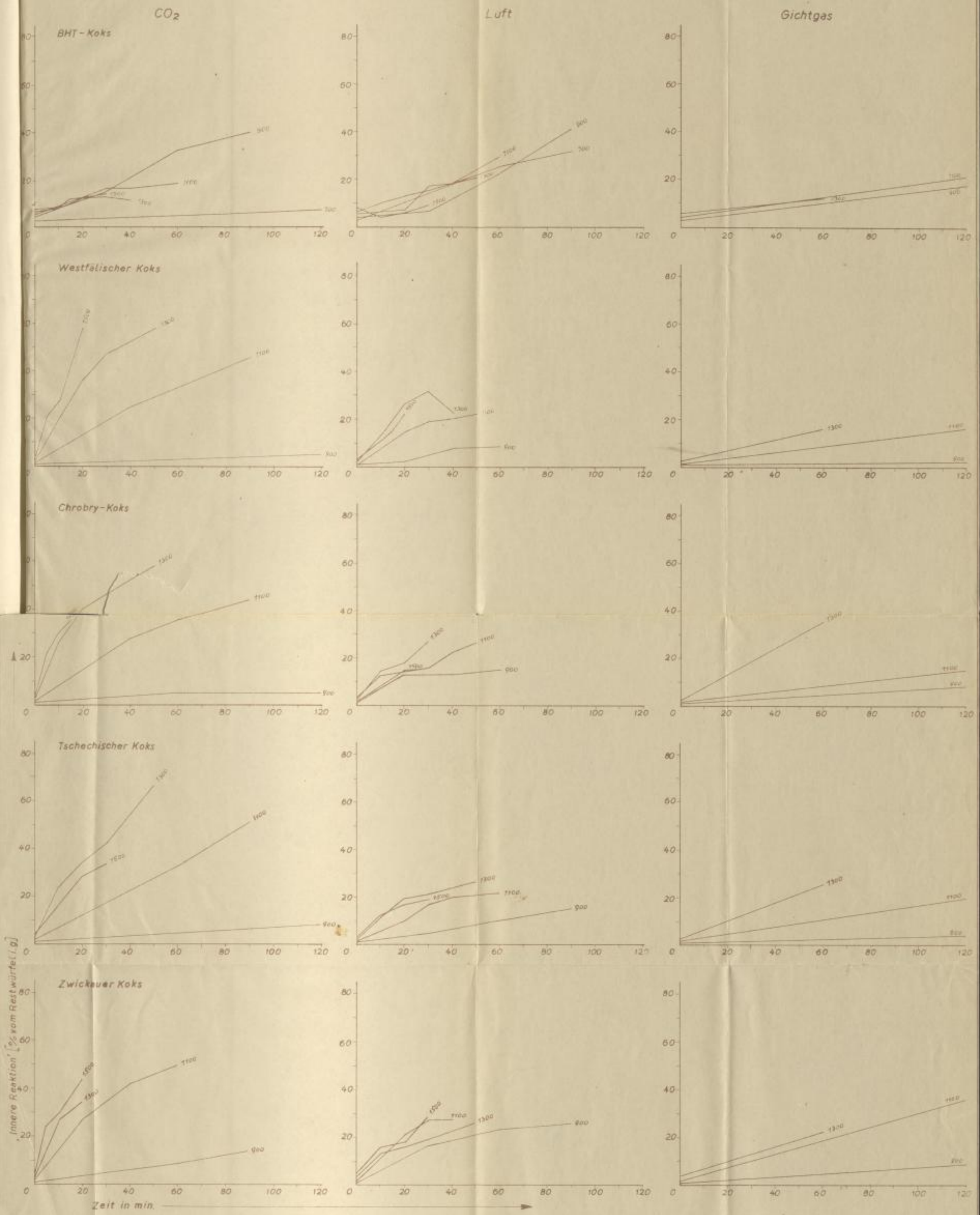


**Bild 43.** *Die innere Reaktion verschiedener Kokssorten bei unterschiedlichen Temperaturen und Reaktionsgasen in Abhängigkeit von der Zeit*



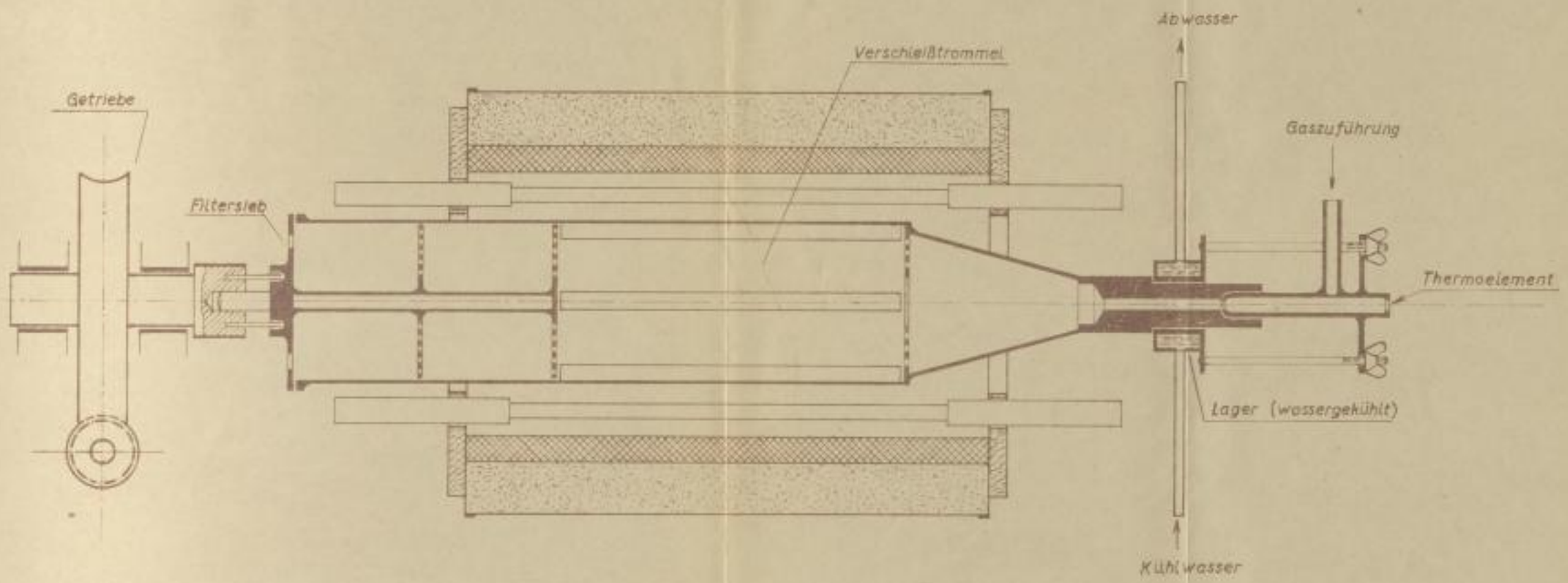



Bild 44. Versuchsapparatur zur Ermittlung des Abriebes von Einsatzstoffen für den Schachtofen-Prozeß unter Reaktionsbedingungen