

- USA
- 06585 BIBLIOGRAPHY OF THE FISCHER-TROPSCH SYNTHESIS AND RELATED PROCESSES. I. REVIEW AND COMPILATION OF THE LITERATURE ON THE PRODUCTION OF SYNTHETIC LIQUID FUELS AND CHEMICALS BY THE HYDROGENATION OF CARBON MONOXIDE. Anderson, H.C.; Wiley, J.L.; Newell, A. (U. S. Bur. of Mines, Washington, DC). U. S. Bur. Mines, Bull.; No. 544, 532p.(1954).
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- 06587 FISCHER-TROPSCH SYNTHESIS WITH COBALT CATALYSTS. II. EFFECT OF NITROGEN, CARBON DIOXIDE, AND METHANE IN THE SYNTHESIS GAS. Gibson, E.J.; Hall, C.C. J. Appl. Chem. (London); 4: 464-8(1954).
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- 06647 CATALYTIC HYDROGENATION OF CARBON MONOXIDE AND DIOXIDE OVER STEEL. Smith, B.D.; White, R.R. (Univ. of Michigan, Ann Arbor). A.I.Ch.E. (Amer. Inst. Chem. Eng.) J.; 2: 46-54(1956).
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- 06648 SURFACE CHANGES ACCORDING TO MEASUREMENTS ON IRON CONTACTS FOR THE FISCHER--TROPSCHE SYNTHESIS UNDER MEDIUM PRESSURE BY THE B.E.T. AND BENZENE-ADSORPTION METHOD OF KUBELKA. Simon, A.; Vinke, A. (Tech. Hochschule, Dresden, Ger.). J. Prakt. Chem.; 4: No. 3, 306-10(1956).
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- 06649 COMPOSITION OF PRODUCTS OF THE SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN OVER KIESELGUHR CATALYSTS. Bashkirov, A.N.; Loktev, S.M.; Khotimskaya, M.I. Khim. i Tekhnol. Topliva; No. 5, 18-22(1956).
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- 06653 HYDROCARBON SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN. Buchmann, F.J.; Mattox, W.J. (to Esso Research and Engineering Co.). US Patent 2,735,862. 21 Feb 1956.
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- turbulent, fluidized mass of finely divided synthesis catalyst; catalyst consists of mixture of Co and Fe promoted by small amount of ThO₂ and supported on SiO₂ gel. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; REDUCTION; LIQUID PRODUCTS; ALKENES; CATALYSTS; FLUIDIZED CATALYSTS; COBALT; IRON; THORIUM OXIDES; SILICA GEL; HIGH TEMPERATURE; MEDIUM PRESSURE
- 06654 CATALYTIC HYDROGENATION OF CARBON MONOXIDE. Rottig, W. (to Ruhrchemie and Lurgi Gesellschaft fuer Waermetechnik mbH). US Patent 2,738,360. 13 Mar 1956. CARBON MONOXIDE; REDUCTION; CATALYSTS
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- 06658 REACTOR FOR HYDROGENATION OF CARBON MONOXIDE. Koelbel, H.; Ackermann, P. (to Rheinpreussen fuer Bergbau und Chemie). German (FRG) Patent 946,289. 26 Jul 1956. Fe catalysts. CARBON MONOXIDE; REDUCTION; EQUIPMENT; IRON; CATALYSTS
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- 06661 FLUIDIZED, IRON-TYPE, FISCHER-TROPSCH CATALYSTS. Latta, J.E. (to Stanolind Oil and Gas Co.). US Patent 2,762,828. 11 Sep 1956. Preparation of catalyst from a lower iron oxide. CARBON MONOXIDE; REDUCTION; HYDROGEN; CATALYSTS; IRON; CHEMICAL PREPARATION; FLUIDIZED CATALYSTS; FISCHER-TROPSCH SYNTHESIS
- 06662 CATALYSTS FOR HYDROGENATION OF CARBON MONOXIDE. Rottig, W. (to Ruhrchemie and Lurgi Gesellschaft fuer Waermetechnik mbH). US Patent 2,767,202. 16 Oct 1956. Preparation of precipitated Cu and Fe catalysts promoted by oxides of Th, Al, Mg, Si, or an alkaline earth metal. CARBON MONOXIDE; REDUCTION; HYDROGEN; CATALYSTS; COPPER; IRON; CHEMICAL PREPARATION; PROMOTERS; THORIUM OXIDES; ALUMINIUM OXIDES; MAGNESIUM OXIDES; SILICON OXIDES; ALKALINE EARTH METALS
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- 06664 CONVERSION OF CARBON MONOXIDE. Kling, G.; Krome, H. (to Badische Anilin- and Soda-Fabrik). German (FRG) Patent 954,235. 13 Dec 1956. Gas mixture of CO and steam passed through series of catalyst layers. CARBON MONOXIDE; CATALYSTS; STEAM; REDUCTION
- 06665 INVESTIGATION OF ROLE OF STRAIGHT-CHAIN STRUCTURES IN SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Golovina, O.A.; Roginskii, S.Z.; Sakharov, M.M.; Eidus, Y.T.; Dokukina, E.S. Problemy Kinetiki i Kataliza, Akad. Nauk SSSR, Inst. Fiz. Khim., Soveshchanie, Moscow; 9: 76-83 (1957). Co-Th catalysts; synthesis at 195°. CARBON MONOXIDE; REDUCTION; HYDROCARBONS; PRODUCTION; COBALT; THORIUM; CATALYSTS; CHEMICAL REACTION KINETICS
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- 06667 SOME PRELIMINARY RESULTS OF AN EXPERIMENTAL PROCESS OF GASIFICATION WITH THE USE OF A STEAM-OXYGEN-AIR BLAST AT THE EXPERIMENTAL PLOT OF THE UNDERGROUND STATION "PODZEMGAZ," NEAR MOSCOW. Brushtein, N.Z.; Kulakova, M.A. Podzemnaya Gazifikatsiya Uglei; 1957: No. 4, 7-11 (1957). Tabulated results. STEAM; OXYGEN; AIR; COAL GASIFICATION; IN-SITU METHOD; USSR; COMBUSTION HEAT
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- 06669 DECOMPOSITION OF ALCOHOLS OVER A FISCHER-TROPSCH IRON CATALYST. Srinivasan, S.R.; Basak, N.G. (Fuel Research Inst., Jealgora, Bihar, India). Fuel; 36: 277-85 (1957). ETHANOL; BUTANOLS; PROPANOLS; DECOMPOSITION; CATALYSTS; IRON; COPPER; MAGNESIUM OXIDES; POTASSIUM OXIDES; FISCHER-TROPSCH SYNTHESIS; CHEMICAL REACTION KINETICS
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- 06678 MECHANISM STUDIES ON THE FISCHER--TROPSCH SYNTHESIS. ADDITION OF RADIOACTIVE METHANOL, CARBON DIOXIDE, AND GASEOUS FORMALDEHYDE. Hall, W.K.; Kokes, R.J.; Emmett, P.H. (Mellon Inst., Pittsburgh, PA). *J. Amer. Chem. Soc.*; 79: 2983-9(1957).
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- 06680 HYDROCARBON SYNTHESIS. Koelbel, H.; Engelhardt, F. (to Rheinpreussen fuer Bergbau und Chemie). US Patent 2,786,863. 26 Mar 1957.
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- 06681 HYDROGENATION OF CARBON MONOXIDE. Rottig, W. (to Ruhrchemie). German(FRG) Patent 960,632. 28 Mar 1957.
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- 06682 AROMATIC HYDROCARBONS. Weck, H.I. (to Standard Oil Co. (Indiana)). US Patent 2,791,583. 7 May 1957.
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- 06683 PRECIPITATED IRON CATALYSTS FOR THE CATALYTIC HYDROGENATION OF CARBON MONOXIDE. Rottig, W. (to Ruhrchemie). German(FRG) Patent 1,007,754. 9 May 1957.
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- 06684 HYDROGENATION OF CARBON MONOXIDE. Dorschner, O.; Korth, H.U.; Herbert, W. (to Metallgesellschaft). German(FRG) Patent 964,234. 23 May 1957.
Yield of hydrocarbons or O-containing compounds increased by removal of CO₂ from residual synthesis gas and separation of gas at -180 to 140°; CH₃OH used as scrubbing liquid. CARBON MONOXIDE; REDUCTION
- 06685 CATALYST MODIFICATION FOR FISCHER--TROPSCH SYNTHESIS. Lake, W.C. (to Pan American Petroleum Corp.). US Patent 2,794,039. 28 May 1957.
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- 06686 HYDROCARBONS AND OXYGEN-CONTAINING COMPOUNDS BY HYDROGENATION OF CARBON MONOXIDE. Tramm, H.; Roelen, O.; Danulat, F. (to Ruhrchemie). German(FRG) Patent 1,009,607. 6 Jun 1957.
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- 06687 APPARATUS FOR THE HYDROGENATION OF CARBON MONOXIDE TO HYDROCARBONS. Herbert, W.; Oetken, F.A. (to Metallgesellschaft). German(FRG) Patent 964,800. 6 Jun 1957.
Hydrocarbon synthesis carried out at 200-700, 20 atm, and rate of 10-15 l/hr/g Co in catalyst (Co 10, ThO₂ 1.5, diatomite 88.5%) with 90% conversion of CO. CARBON MONOXIDE; REDUCTION; HYDROCARBONS; PRODUCTION; EQUIPMENT; CATALYSTS; COBALT; THORIUM OXIDES; DIATOMACEOUS EARTH
- 06688 CARBON MONOXIDE HYDROGENATION IN A LIQUID MEDIUM. (to Rheinpreussen fuer Bergbau und Chemie). British Patent 776,781. 12 Jun 1957.
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- 06689 POTASSIUM OXIDE-PROMOTED IRON CATALYSTS FOR HYDROCARBON SYNTHESIS. Barber, F.T.;

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HYDROCARBONS; PRODUCTION; CATALYSTS; POTASSIUM OXIDES; PROMOTERS; IRON; FLUIDIZED BED
- 06690 HYDROCARBON OILS FROM BITUMINOUS COAL.
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- 06691 IRON CATALYST FOR REDUCTION OF CARBON MONOXIDE. Dorschner, O.; Franke, W.; Rottig, W.; Schenk, K. (to Ruhrchemie). German (FRG) Patent 1,012,596. 25 Jul 1957.
Catalyst of Fe 100, Cu 5, K_2C 5, SiO_2 25, H_2O 65 parts. IRON; CATALYSTS; CARBON MONOXIDE; REDUCTION; CHEMICAL PREPARATION
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- 06693 HYDROCARBONS. (to H. Koppers GmbH).
British Patent 783,061. 18 Sep 1957.
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- 06694 HYDROGENATION OF CARBON MONOXIDE UNDER PRESSURE AND WITH EXTRACTION OF THE CATALYST IN THE REACTOR. Rottig, W.; Wischermann, W. (to Ruhrchemie). German (FRG) Patent 1,017,151. 10 Oct 1957.
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- 06695 IRON CATALYSTS FOR FISCHER—TROPSCH SYNTHESIS. Dorling, T.A.; Hall, C.C.; Gall, D. (to Council of Scientific and Industrial Research). British Patent 785,116. 23 Oct 1957.
Heating intimate mixture of Fe oxide and alkali metal carbonate or hyperoxide to produce alkali metal ferrite; decomposing ferrite with H_2O ; washing product until alkali free; reimpregnating product with 0.1–5.0% alkali metal salt. CATALYSTS; FISCHER—TROPSCH SYNTHESIS; CARBON MONOXIDE; REDUCTION; CHEMICAL PREPARATION
- 06696 AROMATIC HYDROCARBONS FROM CARBON MONOXIDE—HYDROGEN MIXTURES. Seelig, H.S.; Weck, H.I. (to Standard Oil Co. (Indiana)).
US Patent 2,815,357. 3 Dec 1957.
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- 06697 KINETICS OF THE FISCHER—TROPSCH SYNTHESIS ON IRON CATALYSTS. I. RATE DATA ON REDUCED AND NITRIDED CATALYSTS. Karn, F.S.; Selligman, E.; Shultz, J.F.; Anderson, R.B. (Bur. of Mines, Pittsburgh, PA). J. Phys. Chem.; 62: 1059–63 (1958).
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- IRON; CATALYSTS; NITRIDES
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- 06701 SOME FACTORS AFFECTING THE ACTIVITY OF SINTERED IRON CATALYSTS FOR THE FISCHER—TROPSCH SYNTHESIS. Dorling, T.A.; Gall, D.; Hall, C.C. (Dept. Sci. and Ind. Research, London). J. Amer. Chem. Soc.; 8: 533–49 (1958).
Effects of particle size, reduction temperature, and leaching with hot H_2O on activity of catalysts. FISCHER—TROPSCH SYNTHESIS; HIGH TEMPERATURE; TEMPERATURE DEPENDENCE; CATALYSTS; IRON; PARTICLE SIZE; IRON OXIDES; LEACHING; WATER
- 06702 WORKING UP OF THE PRIMARY PRODUCTS OF FISCHER—TROPSCH SYNTHESIS. Pirscher, P. Freiburger Forschungsh.; A80: 65–87 (1958). (In German).
With Fe catalyst, high content of olefins obtained as primary products. FISCHER—TROPSCH SYNTHESIS; GASOLINE; DIESEL FUELS; ALKENES; PRODUCTION; WAXES
- 06703 FISCHER—TROPSCH SYNTHESIS WITH IRON CATALYSTS: EFFECT OF REACTION TEMPERATURE ON PRODUCT COMPOSITION. Gall, D.; Kipping, P.J. (Fuel Research Sta., London). J. Inst. Petrol.; 44: 243–52 (1958).
Increase in temperature over range 200–300° causes mean molecular weight of product to fall and decrease in O compounds in favor of olefinic and aromatics. FISCHER—TROPSCH SYNTHESIS; IRON; CATALYSTS
- 06704 COAL'S PLACE IN SPACE: ROCKET FUELS FROM TARS. Wainwright, H.W. (U. S. Bur. of Mines, Pittsburgh, PA). Missiles and Rockets; 3: No. 11, 43–8 (1958).
Coal tar fractions as jet and missile fuels; perhydrofluoroanthrene has heat of combustion of 18,130 B.t.u./lb.. COAL TAR OILS; HYDROGENATION; COMBUSTION HEAT; SYNTHETIC FUELS
- 06705 DEVELOPMENT OF THE FISCHER—TROPSCH OIL—RECYCLE PROCESS. Benson, H.E.; Field, J.H.; Bienstock, D.; Nagel, R.R.; Brunn, L.W.; Hawk, C.O.; Crowell, J.H. Storch, H.H. (U. S. Bur. of Mines, Pittsburgh, PA). U. S. Bur. Mines., Bull.; No. 568, 72p. (1958).
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- 06706 COAL GAS AS A SUBSTITUTE FOR SYNTHESIS GAS IN THE FISCHER—TROPSCH SYNTHESIS. I. EFFECTS OF TEMPERATURE AND COMPOSITION OF COAL

- GAS ON THE MECHANISMS OF REACTIONS. Basak, G.C.; Niyogi, N.C. (Bengal Eng. Coll., Howrah, India). J. Technol., Bengal Eng. Coll.; 3: 67-71(1958).
- FISCHER-TROPSCH SYNTHESIS; COAL GAS; TEMPERATURE DEPENDENCE; CHEMICAL REACTION KINETICS; CATALYSTS; COBALT; MAGNESIUM OXIDES; THORIUM OXIDES; PRODUCTION; HYDROCARBONS
- 06707 SYNTHESIS OF HYDROCARBONS BY THE HYDROGENATION OF CARBON MONOXIDE. Linder, W. (to Heinrich Koppers GmbH). German(FRG) Patent 1,022,202. 9 Jan 1958.
- Advantages of injecting an atomized suspension of the catalyst in a hydrocarbon oil into the reactor. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; CATALYSTS; SUSPENSIONS; MEDIUM PRESSURE; MEDIUM TEMPERATURE
- 06708 HYDROGENATION OF CARBON MONOXIDE. Rottig, W. (to Ruhrchemie). German(FRG) Patent 967,944. 23 Jan 1958.
- Catalyst precipitated from hot metal nitrate solution by addition of hot Na_2CO_3 solution; consists of Fe 100, Cu 5, CaO 10, and kieselguhr 10 parts. CARBON MONOXIDE; REDUCTION; CATALYSTS; CHEMICAL PREPARATION; LIQUID PRODUCTS
- 06709 FISCHER--TROPSCH SYNTHESIS WITH A CATALYST CONTAINING LEAD DEPOSITED FROM A TETRAALKYLEAD COMPOUND. Wilson, T.P. (to Union Carbide Corp.). US Patent 2,824,116. 18 Feb 1958.
- Predominantly olefinic hydrocarbons obtained in presence of Fe catalyst when catalyst is treated with $\text{Pb}(\text{OC}_2\text{H}_5)_4$. FISCHER-TROPSCH SYNTHESIS; CATALYSTS; ALKENES; PRODUCTION; CARBON MONOXIDE; REDUCTION; TEL
- 06710 HYDROGENATION OF CARBON MONOXIDE. Rottig, W. (to Ruhrchemie). German(FRG) Patent 1,030,320. 22 May 1958.
- Extraction (regeneration) of catalyst. CARBON MONOXIDE; REDUCTION; HYDROGEN; CATALYSTS; REGENERATION
- 06711 HYDROGENATION OF CARBON MONOXIDE. Rottig, W. (to Ruhrchemie). German(FRG) Patent 1,031,773. 12 Jun 1958.
- Preparation of Fe catalyst from FeSO_4 solution. CARBON MONOXIDE; REDUCTION; HYDROGEN; CATALYSTS; IRON; CHEMICAL PREPARATION
- 06712 IRON CATALYST FOR THE SYNTHESIS OF HYDROCARBONS AND THEIR OXYGENATED DERIVATIVES FROM CARBON MONOXIDE AND HYDROGEN. Rappoport, I.B.; Fal'kovskaya, A.A. USSR Patent 110,877. 25 Jun 1958.
- Catalyst produced from rolling mill scale to which is added ferrochrome or reduced powdered Fe chromate; activated with MgO or K_2O . HYDROCARBONS; PRODUCTION; CATALYSTS; CARBON MONOXIDE; REDUCTION; USSR; CHEMICAL PREPARATION
- 06713 HYDROCARBONS. Koelbel, H.; Vorwerk, E. (to Herbert Koelbel). German(FRG) Patent 1,034,164. 17 Jul 1958.
- Production by reaction of CO with H_2O on a Co catalyst. CARBON MONOXIDE; REDUCTION; WATER; PRODUCTION; HYDROCARBONS; CATALYSTS; COBALT; MEDIUM TEMPERATURE; MEDIUM PRESSURE; HIGH PRESSURE
- 06714 HYDROCARBON SYNTHESIS FROM HYDROGEN AND CARBON OXIDES. Sumerford, S.D.; Moise, J.E. (to Esso Research and Engineering Co.). US Patent 2,847,438. 12 Aug 1958.
- Control of C deposition using Fe catalyst. HYDROCARBONS; PRODUCTION; REDUCTION; CARBON OXIDES; FLUIDIZED BED; IRON; CATALYSTS
- 06715 CATALYST TREATMENT FOR HYDROGENATION OF CARBON MONOXIDE. (to Ruhrchemie and Lurgi Gesellschaft fuer Waermetechnik mbH). British Patent 800,213. 20 Aug 1958.
- Technique for preventing formation of dust in catalyst beds. CARBON MONOXIDE; REDUCTION; CATALYSTS
- 06716 HYDROGENATION OF CARBON OXIDES AND CATALYSTS THEREFOR. Riblett, E.W.; McGrath, H.G. (to M. W. Kellogg Co.). US Patent 2,850,515. 2 Sep 1958.
- Use of CO, CO_2 , aldehydes, or ketones to produce hydrocarbons or oxygenated organic compounds; catalyst may be Fe, Co, or Ni with metal oxide promoter such as MgO, Al_2O_3 , MnO, or TiO_2 . CATALYSTS; CARBON MONOXIDE; CARBON DIOXIDE; REDUCTION; KETONES; ALDEHYDES; HYDROCARBONS; PRODUCTION
- 06717 HYDROGENATION OF CARBON MONOXIDE. Jenny, F.J. US Patent 2,852,545. 16 Sep 1958.
- Arrangement for Fischer--Tropsch synthesis. CARBON MONOXIDE; REDUCTION; FISCHER-TROPSCH SYNTHESIS; HYDROCARBONS; PRODUCTION; EQUIPMENT
- 06718 SYNTHETIC LIQUID FUELS. Seord, C.H. (to Minister of Power, London). British Patent 802,145. 1 Oct 1958.
- Production from CO and H. SYNTHETIC FUELS; LIQUID PRODUCTS; CARBON MONOXIDE; REDUCTION; PRODUCTION
- 06719 BALANCED HYDROGENATION OF COAL. Pelipetz, M.G. (to U. S. Dept. of the Interior). US Patent 2,860,101. 11 Nov 1958.
- Motor fuel of high aromatic content provided by direct hydrogenation of coal in single stage; hydrogenation catalysts of $(\text{NH}_4)_2\text{MoO}_4$, NiCl_2 , or SnCl_2 . COAL; HYDROGENATION; SYNTHETIC FUELS; CATALYSTS; GASOLINE; PRODUCTION
- 06720 CATALYTIC MANUFACTURE OF METHANE OR METHANE-CONTAINING MIXTURES FROM CARBON MONOXIDE AND HYDROGEN. Wendlandt, R.; Hoffmann, G.; Kokert, E. (to Lonza-Werke Elektrochemische Fabriken GmbH). German(FRG) Patent 970,913. 13 Nov 1958.
- Using a Ni--Mn--Al catalyst. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; METHANE; CATALYSTS; NICKEL; MANGANESE; ALUMINIUM
- 06721 LOW-TEMPERATURE HYDROGENATION OF NORTHERN-BOHEMIAN BROWN-COAL TARS. Schnabel, B. (Stalin works, Zaluži, Czech.). Chem. Průmysl; 9: 10-14(1959).
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- 06722 DEACTIVATION OF THE WS_2 --NIS-- Al_2O_3 CATALYST BY ARSENIC. I. MECHANISM OF THE DEACTIVATION. Svajgl, O. (Stalinovy Zavody, Zaluži u Mottu, Czech.). Collect. Czech. Chem. Commun.; 24: 3829-34(1959). (In German).
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- 06723 PROCESSING OF LOW-TEMPERATURE TAR OIL FRACTIONS TO DIESEL OILS. Bose, S.K.; Ganguli, A.K.; Basak, N.G.; Lahiri, A. J. Inst. Petrol.; 45: No. 428, 252-8(1959). (In English).
- Sketches of experimental equipment; development of catalyst for diesel oil production. COAL TAR; DIESEL FUELS; EQUIPMENT; DIAGRAMS; CATALYSTS; CHEMICAL PREPARATION; HYDROGENATION; PRODUCTION
- 06724 ANALYSIS OF LIQUID PRODUCTS FROM COAL

- HYDROGENATION BY MASS SPECTROMETRY. Sharkey, A.G. Fuel; 38: No. 3, 315-28(1959). (In English).
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- 06725 INVESTIGATIONS ON THE CATALYTIC HYDROGENATION OF COAL TAR. Chou, P.-C.; Chang, Y.-C.; Wang, C.-N.; Wu, C.-H.; Yuan, C.-C. Hua Hsueh Tung Pao; 1959: No. 4, 1-4(1959).
Production of gasoline on fuller's earth catalyst. COAL TAR;HYDROGENATION;PRODUCTION; GASOLINE;CATALYSTS;FULLER'S EARTH
- 06726 SYNTHETIC CHEMISTRY BASED ON WATER-GAS. Chen, T.-P. (Amoy Univ.). K'o Hsueh Chin Chan; 1: 14-22(1959). (In Chinese).
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- 06727 THERMODYNAMIC EQUILIBRIUM OF THE PRODUCTS FROM FISCHER-TROPSCH SYNTHESIS. Jottrand, R. (Free Univ., Brussels). Ind. Chim. Belge; 1: 540-5(1959). (In French).
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- 06728 NEW FLOW-SHEETS FOR SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN. Blyudov, A.P.; Kulakov, V.N.; Rapoport, I.B. Khim. Tekhnol. Topliv Masel; 4: No. 5, 8-13(1959).
Effects of H₂:CO ratio on nature of products on an Fe-Cu catalyst. CARBON MONOXIDE; REDUCTION;HYDROGEN;QUANTITY RATIO;CATALYSTS; IRON;COPPER;MEDIUM PRESSURE;PRODUCTION; HYDROCARBONS;LIQUID PRODUCTS;GASEOUS PRODUCTS
- 06729 COAL GAS AS A SUBSTITUTE FOR SYNTHESIS GAS IN THE FISCHER-TROPSCH SYNTHESIS. II. EFFECT OF CATALYST COMPOSITION AND TEMPERATURE UPON ACTIVITY AND PRODUCT DISTRIBUTION. Basak, G.C.; Niyogi, N.C. (Bengal Eng. Coll., Howrah, India). U. Technol., Bengal Eng. Coll.; 4: 131-7(1959).
Four different Ni catalysts at atmospheric pressure and 180, 190, and 200° for conversion effect on purified coal gas samples; catalysts were 100 Ni:10 MgO:5 ThO₂:100 kieselguhr (k), 100 Ni:10 Al₂O₃:100 k, 100 Ni:25 MnO:10 Al₂O₃: 100 k, and 50 Ni:50 Co:10 MgO:5 ThO₂:200 k; reaction is mainly CO + 2H₂ = (CH₂) + H₂O.
COAL GAS;SYNTHESIS GAS;FISCHER-TROPSCH SYNTHESIS;CATALYSTS;NICKEL
- 06730 NEW LOW-PRESSURE HYDROGENATION PROCESS FOR SEMICOKE-OVEN TARS. Krichko, A.A.; Lezovoi, A.V.; Pchelina, D.P. Trudy Inst. Goryuchikh Iskopaemykh AN SSSR; 9: 37(1959). (In Russian).
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- 06731 HYDROGENATION OF COALS MINED IN THE CHEREMKHOVO COALFIELD AND CONCENTRATED BY THE METHOD OF CENTRIFUGAL SEPARATION IN HEAVY LIQUIDS. Krichko, A.A.; Konyashina, R.A. Trudy Inst. Goryuchikh Iskopaemykh AN SSSR; 9: 62(1959). (In Russian).
Hydrogenation in autoclave at 460°C and 300 atm. COAL;USSR;HYDROGENATION;CENTRIFUGATION; HIGH TEMPERATURE;HIGH PRESSURE;AUTOCLAVES;COAL TAR OILS
- 06732 ADDITION OF A PARTIAL OXIDATION PRODUCT TO HYDROCARBON SYNTHESIS. Swearingen, J.E. (to Pan American Petroleum Corp.). US Patent 2,871,253. 27 Jan 1959.
Reduction of CO at 600-500°F with alkali-promoted Fe-hydrocarbon-synthesis catalyst. HYDROCARBONS;PRODUCTION;FLOWSHEETS;CARBON MONOXIDE;REDUCTION;CATALYSTS;IRON
- 06733 IRON CATALYST FOR SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Rapoport, I.B.; Vainshtein, B.P. USSR Patent 117,534. 6 Feb 1959.
Catalyst made of Fe, Cu, and Mn to which is added 4 to 6% of product obtained by treating SiO₂ with excess of KOH. CARBON MONOXIDE; REDUCTION;IRON;CATALYSTS;COPPER;MANGANESE; POTASSIUM HYDROXIDES;SILICON OXIDES
- 06734 ETHYLENE MANUFACTURE FROM CARBON MONOXIDE AND HYDROGEN. Peters, K. (to Osterreichische Stickstoffwerke). Austrian Patent 204,018. 25 Jun 1959.
Catalytic conversion of CO with H at 350-520°, preferably 350-450°, at normal or elevated pressure; description of complex catalyst mixtures. ETHYLENE;PRODUCTION;CARBON MONOXIDE;REDUCTION;HIGH TEMPERATURE;CATALYSTS
- 06735 HYDROCARBON PRODUCTION FROM CARBON MONOXIDE AND STEAM OVER COBALT CATALYSTS. Koebel, H.; Vorwerk, E. (to Herbert Koebel). German(FRG) Patent 1,060,854. 9 Jul 1959.
Mixture of CO and H₂O passed over Co-ThO₂-MgO-kieselguhr catalyst. HYDROCARBONS; PRODUCTION;CARBON MONOXIDE;REDUCTION;STEAM; CATALYSTS;COBALT;THORIUM OXIDES;MAGNESIUM OXIDES;KIESELGUHR;WATER GAS
- 06736 REMOVAL OF GUMS FROM CATALYSTS USED IN CONVERSION OF CARBON MONOXIDE. (to Metallgesellschaft). British Patent 870,714. 13 Aug 1959.
Catalyst regenerated by passing air mixed with inert gas over it at a series of temperatures and flow rates. CATALYSTS;CARBON MONOXIDE;REGENERATION;TOWN GAS;REDUCTION; PRODUCTION
- 06737 HYDROGENATION OF CARBON MONOXIDE OVER COBALT OR NICKEL CATALYSTS. (to Ruhrchemie). German(FRG) Patent 972,900. 29 Oct 1959.
Gas containing CO₂ 41, CO 8, and H 16% yields fluid aliphatic hydrocarbons in presence of Co(Ni)-Th-Mg catalyst. CARBON MONOXIDE; REDUCTION;CATALYSTS;COBALT;NICKEL;HYDROCARBONS; PRODUCTION;LIQUID PRODUCTS
- 06738 HYDROGENATION OF CARBON MONOXIDE WITH IRON SINTER CATALYSTS. Rottig, W.; Froelcke, E. (to Ruhrchemie). German(FRG) Patent 1,069,601. 26 Nov 1959.
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- 06739 HYDROGENATION OF CARBON MONOXIDE WITH PRETREATED IRON CATALYSTS. Koebel, H.; Langhien, R. (to Rheinpreussen fuer Bergbau und Chemie). German(FRG) Patent 973,187. 17 Dec 1959.
Fe catalysts treated with CO-containing gases until greater than or equal 15-50% is converted to carbide and then treated with H until greater than or equal 70% of carbide is reduced. CARBON MONOXIDE;REDUCTION;IRON; CATALYSTS;CHEMICAL PREPARATION
- 06740 FIXED-BED VAPOR-PHASE HYDROGENATION OF LOW-TEMPERATURE COAL TAR UNDER MEDIUM PRESSURE. Huang, C.-Y.; Wei, Y.-H. Jan Liao Hsueh Pao; 5: 21-33(1960).
COAL TAR;HYDROGENATION;MEDIUM PRESSURE;HIGH TEMPERATURE;PRODUCTION;GASOLINE;OILS;PHENOLS
- 06741 FISCHER-TROPSCH SYNTHESIS USING GAS RECYCLE COOLING. (SIMULATED HOT-GAS RECYCLE PROCESS). Beinstock, D.; Jameson, R.M.; Field, J.H.; Benson, H.E. (U. S. Bur. of

- Mines, Pittsburgh, PA). U. S. Bur. Mines, Rept. Invest.; No. 5655, 25p.(1960). Equipment. FISCHER-TROPSCH SYNTHESIS; EQUIPMENT
- 06742 PRODUCING HEAVY FUEL OIL BY HYDROGENATING BITUMINOUS COAL. Ginsberg, H.H.; Lewis, P.S.; Anderson, P.B.; Hiteshue, R.W. (U. S. Bur. of Mines, Pittsburgh, PA). U. S. Bur. Mines, Rept. Invest.; No. 5674, 57p.(1960). Evaluation of various catalysss. COAL; BITUMINOUS COAL; HYDROGENATION; FUEL OILS; PRODUCTION; PILOT PLANTS; CATALYSTS
- 06743 EVALUATION OF RHENIUM-CONTAINING CATALYSTS FOR THE HYDROGENATION OF BROWN-COAL TAR PROCESSING PRODUCTS AT MEDIUM AND HIGH PRESSURES. Luder, H.; Drescher, K. (VEB Kombinat "Otto Grotewohl," Bohlen, Ger.). Chem. Tech. (Berlin); 12: 16-22(1960). BROWN COAL; COAL TAR; HYDROGENATION; MEDIUM PRESSURE; HIGH PRESSURE; CATALYSTS; RHENIUM; MOLYBDENUM OXIDES; DIATOMACEOUS EARTH; ALUMINIUM OXIDES; SILICON OXIDES; PRODUCTION; GASOLINE
- 06744 COAL GAS AS A SUBSTITUTE FOR SYNTHESIS GAS IN FISCHER--TROPSCH REACTIONS. III. Basak, G.C.; Niyogi, N.C. (Bengal Eng. Coll., Howrah, India). J. Technol., Bengal Eng. Coll.; 5: 117-26(1960). Coal gas (CO₂ 5.38, H 25.9, O 2.7, CH₄ 19.05, unsaturated hydrocarbons 3.10, C₂ and higher saturated hydrocarbons 0.41, CO 7.25, N 36.23%) reacted over catalyst (MgO--ThO₂--kieselguhr). COAL GAS; SYNTHESIS GAS; FISCHER-TROPSCH SYNTHESIS; CATALYSTS; MAGNESIUM OXIDES; THORIUM OXIDES; KIESELGUHR; CHEMICAL REACTIONS
- 06745 GASOLINE FROM COAL VIA THE SYNTHOL PROCESS. Garrett, L.W., Jr. (M. W. Kellogg Co., New York, NY). Chem. Eng. Progr.; 56: No. 4, 39-43(1960). BITUMINOUS COAL; COAL GASIFICATION; PRODUCTION; SYNTHESIS GAS; Lurgi PROCESS; SYNTHOL PROCESS; GASOLINE; PRESSURE DEPENDENCE; TEMPERATURE DEPENDENCE; CATALYSTS; IRON OXIDES
- 06746 FISCHER--TROPSCH SYNTHESIS. APPLICATION OF WHEELER'S EQUATION TO SYNTHESIS DATA. Anderson, R.B.; Hofer, L.J.E. (U. S. Bur. of Mines, Pittsburgh, PA). J. Chem. Eng. Data; 5: 511-13(1960). Diffusion and reaction in catalyst pores considered; synthesis was first order with respect to partial pressure of synthesis gas. FISCHER-TROPSCH SYNTHESIS; CHEMICAL REACTION KINETICS
- 06747 SYNTHETIC LIQUID FUELS BY FISCHER--TROPSCH PROCESS. Field, J.H.; Anderson, R.B.; Benson, H.E. Chem. Eng. Progr.; 56: No. 4, 44-8(1960). FISCHER-TROPSCH SYNTHESIS; HIGH TEMPERATURE; PRODUCTION; GASOLINE; ALCOHOLS; SYNTHETIC FUELS
- 06748 LOW-BOILING HYDROCARBONS BY CATALYTIC HYDROGENATION OF CARBON MONOXIDE. Koelbel, H.; Ackermann, P. (to Herbert Koelbel). German(FRG) Patent 973,384. 4 Feb 1960. Product is mostly unsaturated, low-boiling hydrocarbons; Fe oxide catalyst containing Cu and K. CARBON MONOXIDE; REDUCTION; HYDROCARBONS; PRODUCTION; CATALYSTS; IRON OXIDES; ALKENES
- 06749 MULTISTEP OPERATION OF IRON CATALYSTS FOR CARBON MONOXIDE HYDROGENATION. Koelbel, H.; Langheim, R. (to Rheinpreussen fuer Bergbau und Chemie). German(FRG) Patent 973,378. 4 Feb 1960. CARBON MONOXIDE; REDUCTION; IRON; CATALYSTS; CHEMICAL PREPARATION
- 06750 REACTOR FOR THE CATALYTIC HYDROGENATION OF CARBON MONOXIDE IN A LIQUID MEDIUM. Koelbel, H.; Ackermann, P. (to Rheinpreussen fuer Bergbau und Chemie). German(FRG) Patent 973,377. 4 Feb 1960. CARBON MONOXIDE; REDUCTION; CATALYSIS
- 06751 CATALYTIC CONVERSION OF CARBON MONOXIDE-CONTAINING GAS AND STEAM UNDER PRESSURE. Bayer, R. (to Metallgesellschaft). German(FRG) Patent 973,842. 23 Jun 1960. Equipment. CARBON MONOXIDE; REDUCTION; STEAM; EQUIPMENT
- 06752 MECHANICALLY STRONG CATALYST PELLETS FOR THE CONVERSION OF CARBON MONOXIDE WITH STEAM. Anokhin, V.N.; Demidkin, V.A. USSR Patent 138,229. 8 Jul 1960. Catalyst obtained by rolling mass consisting of powdered industrial Fe--Cr catalyst, binding material, and plasticizer, drying, and calcining product; kaolin is added. CARBON MONOXIDE; REDUCTION; STEAM; CATALYSTS; CHEMICAL PREPARATION; IRON; CHROMIUM; KAOLIN
- 06753 IRON CATALYSTS, ESPECIALLY FOR SYNTHESIS OF HYDROCARBONS FROM SYNTHESIS GAS. Sauter, E.R.; McDonald, A.F.; Charlesworth, J.A. (to South African Coal, Oil, and Gas Corp. Ltd.). US Patent 2,944,988. 12 Jul 1960. Preparation of iron catalyst impregnated with K₂CO₃. SYNTHESIS GAS; CARBON MONOXIDE; REDUCTION; HYDROGEN; CATALYSTS; IRON; CHEMICAL PREPARATION; POTASSIUM CARBONATES
- 06754 CARBON MONOXIDE HYDROGENATION BY A FLUIDIZED BED CONTAINING A COBALT-THORIUM OXIDE-SILICA GEL CATALYST. (to Esso Research and Engineering Co.). German(FRG) Patent 973,965. 4 Aug 1960. Moist gelled SiO₂ impregnated with aqueous solutions of Co nitrate and Th nitrate. CARBON MONOXIDE; REDUCTION; FLUIDIZED BED; COBALT NITRATES; COBALT OXIDES; THORIUM NITRATES; THORIUM OXIDES; SILICA GEL; CATALYSTS; CHEMICAL PREPARATION
- 06755 REDUCED AND FORMED IRON CATALYSTS FOR CARBON MONOXIDE HYDROGENATION. Rottig, W.; Froelege, E.; Schaller, P. (to Ruhrchemie). German(FRG) Patent 1,091,097. 20 Oct 1960. Catalysts are activated and stabilized against oxidation by aftertreatment with H and CO₂; catalyst made from Fe₂O₃, CuO, and ZnO with addition of H₂CO₃; catalyst with no aftertreatment lost 50% of effectiveness in 8 days, but catalyst with aftertreatment remained practically unchanged in effectiveness after 8 days. CARBON MONOXIDE; REDUCTION; CATALYSTS; CHEMICAL PREPARATION
- 06756 HYDROCARBONS AND OXYGEN-CONTAINING COMPOUNDS BY REACTION OF CARBON MONOXIDE WITH WATER IN THE PRESENCE OF AQUEOUS CATALYST SUSPENSIONS. Koelbel, H. German(FRG) Patent 1,092,458. 10 Nov 1960. CO-combining gas treated at 180-300° and >4 atm with suspension of catalyst in H₂O to give hydrocarbons and O-containing compounds; catalysts based on Co₂Ni, or stabilized Fe compounds; best results are obtained with Ru catalysts. CARBON MONOXIDE; REDUCTION; WATER; CATALYSTS; HYDROCARBONS; PRODUCTION; HIGH TEMPERATURE; COBALT; NICKEL; IRON; RUTHENIUM
- 06757 COAL GAS AS A SUBSTITUTE FOR SYNTHESIS GAS IN THE FISCHER--TROPSCH SYNTHESIS. IV. VARIATIONS OF REACTION CHARACTERISTICS WITH TIME. Basak, G.C.; Niyogi, N.C. J. Technol., Bengal Eng. Coll.; 6: No. 1, 49-60(1961). COAL GAS; SYNTHESIS GAS; FISCHER-TROPSCH SYNTHESIS; COBALT; CATALYSTS; HYDROCARBONS; PRODUCTION

- 06758 INTERMEDIATE REACTIONS IN THE FISCHER-TROPSCH SYNTHESIS. Srinivasa Rao, P.N.; Deshpande, P.K. (Indian Inst. Sci., Bangalore). Chem. Age India; 12: 23-7(1961).
Attempt made to select experimental conditions to accelerate the rate of intermediate reactions so intermediate compounds appear in exit gas or remain adsorbed on catalyst surface; such conditions are low temperature, high partial pressure of CO in synthesis gas, and atmospheric pressure, especially with Fe catalysts. FISCHER-TROPSCH SYNTHESIS; IRON; CATALYSTS; CHEMICAL REACTION KINETICS
- 06759 SYNTHETIC FUEL FROM COAL FOR SUPERSONIC AIRCRAFT. Schlesinger, M.D.; Hiteshue, R.W. (U. S. Bur. of Mines, Bruceton, PA). U. S. Bur. Mines, Rept. Invest.; No. 5902, 19p. (1961).
Tar oil used was 230-300°C fraction of low temperature tar from carbonization of bituminous coal; desulfurization at 400°C and saturation at 300°C done in vapor phase at 2500 p.s.i.g.. SYNTHETIC FUELS; PRODUCTION; COAL; BITUMINOUS COAL; COAL TAR OILS; DESULFURIZATION; CATALYSIS; COMBUSTION HEAT; HIGH TEMPERATURE; HIGH PRESSURE
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- 07068 CRACKING BITUMINOUS MATERIAL. Egloff, G. (to The Universal Oil Products Co.). Canadian Patent 341,368. 1 May 1934.
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Relation between melting points and oil yields. COAL TAR;DISTILLATION;PRODUCTION;OILS; MELTING POINTS
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- 07074 CATALYSIS IN HYDROCARBON CHEMISTRY. II. DECOMPOSITION OF LOW-BOILING HYDROCARBONS. Griffith, R.H.; Plant, J.H.G. Proc. Roy. Soc. (London), Ser. A; A148: 191-4(1935).
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- 07076 APPARATUS (WITH GROUPS OF SPACED RETORTS) FOR HEATING COAL, SHALE, ETC. Moore, S. (to Stellite Ltd.). US Patent 2,071,082. 16 Feb 1935.
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- in presence of contact agents containing Si compounds activated prior to reaction. HYDROCARBONS; PRODUCTION; CATALYSIS; DISTILLATION; CARBONACEOUS MATERIALS
- 07079 EXTRACTING VOLATILE HYDROCARBONS FROM COAL, ETC. Freeman, N.H. French Patent 801,805. 19 Aug 1936.
Apparatus for distillation method. COAL; METAMORPHIC ROCKS; HYDROCARBONS; DISTILLATION; PRODUCTION; DESIGN; EQUIPMENT; HYDRATES; ALKALI METAL COMPOUNDS
- 07080 HYDROGENATION-CRACKING OF TARS. III. EFFECT OF CERTAIN VARIABLES IN A CONTINUOUS PLANT. Cawley, C.M.; King, J.G. Dept. Sci. Ind. Research (Brit.), Fuel Research, Tech. Paper; No. 45, (1937).
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- 07082 DEVELOPMENTS IN COAL-TAR DISTILLATION. Shatwell, H.G. Chemistry and Industry; 1937: 155-9(1937).
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- 07084 COAL-TAR DISTILLATION. Adam, W.G.; Potter, F.M. Chemistry and Industry; 1937: 193-4(1937).
Description of pipe-still plants in various countries. COAL TAR; DISTILLATION; INDUSTRIAL PLANTS
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- 07092 NATIONAL MOTORS FUELS. LOW-TEMPERATURE DISTILLATION. Chevereau, J. Tech. ind. Petrole (Science et industrie); No. 284bis, 55-8(1939).
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- 07103 WORKING METHODS IN THE CHEMISTRY OF COAL. II. A. LOW-TEMPERATURE DISTILLATION. Aranda, V.G.; Cordon, J.L.M. (Inst. Nacl. Combustible, Zaragoza, Spain). Combustibles (Zavagoz); 10: No. 51, 3-9(1950).
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- 07113 CATALYTIC CRACKING OF OILS FROM LOW-TEMPERATURE BROWN-COAL TAR. Kuczynski, W.; Gilewicz, J. (Zaklad Technol. Chem. Uniw., Poznan, Poland). Przem. Chem.; 35: 400-4(1956). (In English and Russian).
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- 07120 THERMAL DECOMPOSITION OF SOLID FUELS WITH THE AID OF METALLIC HEAT CARRIERS. Degtev, G.N. Voprosy Energotekhnol. Ispol'zovan. Topliv Sibiri, Novosibirsk. Oblastnoe Pravlenie Nauchn.-Tekhn. Obshchestva Energet. Prom.; 1960: 49-60(1960).
Laboratory apparatus with peat or coal mixed with metal spheres heated to 500-700° by induction furnace. PYROLYSIS;SOLIDS;FOSSIL FUELS;INDUCTION FURNACES;COAL;COAL GAS; PRODUCTION
- 07121 THERMAL TREATMENT OF BROWN COAL FOR ITS USE FOR POWER PRODUCTION. Rysakov, N.F. Voprosy Energotekhnol. Ispol'zovan. Topliv Sibiri, Novosibirsk. Oblastnoe Pravlenie Nauchn.-Tekhn. Obshchestva Energet. Prom.; 1960: 61-9(1960).
Use of electrically heated retort. COAL; BROWN COAL;PYROLYSIS;EQUIPMENT;COMBUSTION HEAT; COAL GAS;PRODUCTION;USSR
- 07122 DEVELOPMENT OF A METHOD FOR THE STUDY OF THE THERMAL DECOMPOSITION OF COALS DURING RAPID HEATING. Baskakov, A.P. Voprosy Energotekhnol. Ispol'zovan. Topliv Sibiri, Novosibirsk. Oblastnoe Pravlenie Nauchn.-Tekhn. Obshchestva Energet. Prom.; 1960: 39-47(1960).
Rapid heating of coals using high-frequency electromagnetic field; apparatus was thick-walled quartz tube charged with crushed coal mixed with small steel spheres. COAL;PYROLYSIS; ELECTROMAGNETIC FIELDS;HEATING;EQUIPMENT;COAL GAS;PRODUCTION;USSR
- 07123 THERMAL DECOMPOSITION OF COALS OF THE IRKUTSK BASIN AT LOW TEMPERATURES. Kashtanova, A.Z. Izv. Fiz.-Khim. Nauchn.-Issled. Inst. pri Irkutskom Univ.; 5: No. 1, 171-85(1961).
Coal heated in Al retort to 200-500° at intervals of 50°; effect on yield of gas, liquid products, and nonvolatile residue studied. COAL;PYROLYSIS
- 07124 PYROLYSIS OF HEAVY TARS FROM THE SEMICOKING OF CHEREMKHOVSKII COALS. Apter, D.M.; Kalinichenko, F.I. (Siberian Branch Acad. Sci. USSR, Irkutsk). Izv. Sibirsk. Otd. Akad. Nauk SSSR; 1962: No. 2, 120-2(1962).
Pyrolysis at 650-1000°; proportion of unsaturated compounds in gas decreased with increasing temperature from 40% at 650-700° to 5% at 1000°. COAL TAR;PYROLYSIS;USSR;HIGH TEMPERATURE;COAL GAS;PRODUCTION;COMBUSTION HEAT
- 07125 CONTINUOUS DISTILLATION OF COAL AND HYDROGENATION OF CONDENSABLE VOLATILES. Huntington, M.G. (to Huntington Chemical Corp.); US Patent 3,107,985. 22 Oct 1963.
Continuous multistage, pressurized coal distillation and gasification system in single vertical vessel. COAL;DISTILLATION; HYDROGENATION;EQUIPMENT;CHARS;PRODUCTION; PRODUCER GAS;SYNTHESIS GAS
- 07126 FLUIDIZATION OF COAL FROM STRIP PITS OF KUZNETSK BASIN IN A FURNACE WITH REMOVAL OF LIQUID SLAG. Maslov, V.E.; Martsis, B.T.; Protsailo, M.Y. Teploenergetika; 11: No. 1, 7-10(1964).
Cyclone combustion and removal of slag with coals with ash melting at 1200-1500°; details of construction. COAL;FLUIDIZATION;FURNACES
- 07127 THERMAL CRACKING OF LOW-TEMPERATURE COAL TARS. Rao, M.J. (Regional Res. Lab., Hyderabad). Low-Temp. Carbonization Non-Caking Coals Lignites Briquetts. Coal Fines, Symp. Hyderabad, India, 1961; 2: 148-53(1964).
Use of Lurgi flash low temperature carbonization plant for production of unsaturated hydrocarbon gases and low-boiling aromatics. COAL TAR;CRACKING;PILOT PLANTS; GASEOUS PRODUCTS;AROMATICS;PRODUCTION
- 07128 MECHANISMS OF COAL PYROLYSIS. VI. REACTION PATTERNS IN THE RANGE 650-850°. Neufeld, L.F.; Berkowitz, N. (Res. Council Alberta, Edmonton, Can.). Fuel; 43: 91-202(1964).
COAL;PYROLYSIS;CHEMICAL REACTION KINETICS; HIGH TEMPERATURE;CHARS;WATER;METHANE;PRODUCTION
- 07129 REDUCED COALS. I. MECHANISM OF COAL PYROLYSIS. Bhattacharyya, A.C.; Mazumdar, B.K.; Lahiri, A. (Central Fuel Res. Inst., Jaalgora, India). Fuel; 43: No. 3, 181-8(1964).
Pyrolysis at 600°. COAL;PYROLYSIS;CHEMICAL REACTION KINETICS;HIGH TEMPERATURE
- 07130 FLUIDIZED-BED PYROLYSIS OF COAL. Jones, J.F.; Schmid, M.R.; Eddinger, R.T. (FMC Corp., Princeton, NJ). Chem. Eng. Progr.; 60: No. 6, 69-73(1964).
COAL;PYROLYSIS;FLUIDIZED BED;ECONOMICS; GASEOUS PRODUCTS;LIQUID PRODUCTS;FLUIDIZATION; HIGH TEMPERATURE;COAL TAR;PRODUCTION;COMBUSTION HEAT;CHARS
- 07131 SURVEY OF NUMERICAL DATA ON THE THERMAL DECOMPOSITION OF COAL. Gregory, D.R.; Littlejohn, R.F. Brit. Coal Util. Res. Assoc. Monthly Bull.; 29: No. 6, 173-200(1965). (In English).
Review with 88 references. COAL;PYROLYSIS; REVIEWS
- 07132 KINETICS OF THE THERMAL DECOMPOSITION OF COAL. Yellow, P.C. Brit. Coal Util. Res. Assoc., Monthly Bull.; 29: No. 9, 285-308(1965). (In English).
Review with 41 references on experimental methods used in investigation of coal decomposition kinetics and theories of pyrolysis. COAL;PYROLYSIS;CHEMICAL REACTION KINETICS;REVIEWS
- 07133 MULTISTAGE PYROLYSIS OF COAL. Jones, J.F.; Eddinger, R.T.; Seglin, L. (FMC Corp., Princeton, NJ). Chem. Eng. Progr.; 62: No. 2, 73-9(1966). (In English).
High-volatile bituminous coal pyrolyzed steps at 600, 850, 1000, and 1600°F with N as fluidizing medium. COAL;PYROLYSIS;FLUIDIZATION; BITUMINOUS COAL;ILLINOIS;NITROGEN;ECONOMICS
- 07134 LOW TEMPERATURE CATALYZED DESTRUCTIVE DISTILLATION OF BITUMINOUS COALS. Winkler, J. US Patent 3,282,826. 1 Nov 1966.
Liquids products, normally obtained by destructive distillation of bituminous coal at or above 1000° may be obtained at 300-400° and at or above 10 atm by grinding coal with Fe, Mg, Al, Zn, Na, Ca, etc., in heated ball mill. COAL;BITUMINOUS COAL;DISTILLATION;VERY HIGH TEMPERATURE;HIGH TEMPERATURE;EQUIPMENT;MEDIUM PRESSURE
- 07135 KINETIC STUDY OF THE PYROLYSIS OF A HIGH-VOLATILE BITUMINOUS COAL. Wiser, W.H.; Hill, G.R.; Kertamus, N.J. Ind. Eng. Chem., Prod. Res. Develop.; 6: No. 1, 133-8(1967). (In English).
19 references. COAL;PYROLYSIS;CHEMICAL REACTION KINETICS;BITUMINOUS COAL;VOLATILITY

- 07136 KINETICS OF PYROLYSIS OF HIGH VOLATILE BITUMINOUS COAL. El-Mogazi, M.M. (Univ. of Utah, Salt Lake City). Diss. Abstr. B.; 28: No. 4, 1472-3(1967). (In English).
CHEMICAL REACTION KINETICS; PYROLYSIS; COAL; BITUMINOUS COAL; VOLATILITY
- 07137 FLASH HEATING AND PLASMA PYROLYSIS OF COAL. Anderson, L.L. (Univ. of Utah, Salt Lake City); Hill, G.R.; McDonald, E.H. (Continental Oil Co., Ponca City, OK); McIntosh, M.J. (Hercules Powder Co., Bacchus, Utah). Chem. Eng. Progr., Symp. Ser.; 64: No. 85, 81-8(1968).
Product yields are a function of energy input and gas composition. COAL; PYROLYSIS; FLASH HEATING; PRODUCTION; ACETYLENE; CHEMICAL REACTIONS
- 07138 FLUIDIZED-BED PYROLYSIS OF WESTERN BITUMINOUS COALS. Schmid, M.R.; Jones, J.F.; Eddinger, R.T. (FMC Corp., Princeton, NJ). Chem. Eng. Progr., Symp. Ser.; 64: No. 85, 26-30(1968). (In English).
Multistage pyrolysis at 600-650, 850, 1000, and 1600°F. FLUIDIZED BED; PYROLYSIS; COAL; BITUMINOUS COAL; HIGH TEMPERATURE; VERY HIGH TEMPERATURE
- 07139 (SLA-74-6007) COMBINED DETERMINATION OF THE THERMAL CHARACTERISTICS OF SOLID FUEL DURING HIGH-TEMPERATURE PYROLYSIS. Agroskin, A.A.; Goncharov, E.I.; Lovetskii, L.V. Translated from Khim. Tverd. Topl.; No. 4, 3-12(1968). 14p. Dep. NTIS \$3.00.
20 to 900°C. COAL; THERMAL CONDUCTIVITY; PYROLYSIS; ERRORS; THERMAL DIFFUSIVITY; THERMODYNAMIC PROPERTIES; MEDIUM TEMPERATURE; HIGH TEMPERATURE; VERY HIGH TEMPERATURE
- 07140 INFLUENCE OF THE COKING TEMPERATURE ON CERTAIN RAW COKE-GAS CHEMICAL PRODUCTS. Mazur, M.; Forizs, S. (Comb. Siderurg., Hunedoara, Rom.). Metallurgia; 20: No. 10, 567-71(1968). (In Romanian).
Increase of coking temperature from 1350-60 to 1370-800 affected products; yield of H sulfide, HCN, and ammonia increased with temperature. COAL GAS; TEMPERATURE DEPENDENCE; HYDROGEN SULFIDES; HYDROCYANIC ACID; AMMONIA; PRODUCTION; BENZENE; TOLUENE; PYROLYSIS
- 07141 KINETICS OF HYDROCRACKING OF LOW TEMPERATURE COAL TAR. Qadar, S.A.; Wiser, W.H.; Hill, G.R. (Univ. of Utah, Salt Lake City, Utah). Am. Chem. Soc., Div. Fuel Chem., Preprints; 12: No. 2, 28-46(1968).
Use of both autoclaves with catalyst of sulfides of Ni and W supported on silica-alumina; gasoline obtained at 5000 and 3000 psi; equation for relationships between rate constants for gasoline formation, desulfurization, and denitrogenation. COAL TAR; CRACKING; HYDROGENATION; CHEMICAL REACTION KINETICS; NICKEL SULFIDES; TUNGSTEN SULFIDES; CATALYSTS; AUTOCLAVES; ALUMINIUM OXIDES; SILICON OXIDES; GASOLINE; PRODUCTION; HIGH TEMPERATURE; HIGH PRESSURE; DESULFURIZATION; PURIFICATION
- 07142 COAL-AMMONIA-OXYGEN REACTION: ROUTE TO COAL-BASED NITROGENOUS FERTILIZERS. Brown, H.M. (Univ. of Waterloo, Ontario, Canada); Berkowitz, N. (Res. Council of Alberta, Edmonton, Alberta). Chem. Eng. Progr., Symp. Ser.; 64: No. 85, 89-97(1968).
COAL; PYROLYSIS; CHEMICAL REACTIONS; OXYGEN; AMMONIA; PRODUCTION; FERTILIZERS
- 07143 EVOLUTION OF GASES FROM SUBBITUMINOUS COAL. Groom, P.S. (Chem. Div., D.S.I.R., Lower Hutt, N.Z.). Fuel; 48: No. 2, 161-9(1969). (In English).
Coal heated at 2.8°/min from 150 to ca. 1000°; gases studied were O, N, CO, C dioxide, H, methane, ethane, propane; and ethylene;
- preheating to 600° would produce useful gas and some tar products and leave char that is useful for reduction. COAL; PYROLYSIS; OXYGEN; NITROGEN; CARBON MONOXIDE; CARBON DIOXIDE; HYDROGEN; METHANE; ETHANE; PROPANE; ETHYLENE; PRODUCTION
- 07144 TAR CRACKING. 4. CRACKING OF COAL CARBONIZATION PRODUCTS IN A STATIC-BED REACTOR BETWEEN 700° AND 1300°. Hesp, W.R.; Philipp, D.H.; Waters, P.L. (Div. Miner. Chem., CSIRO, Chatswood, Aust.). Aust., Commonw. Sci. Ind. Res. Organ., Div. Miner. Chem., Invest. Rep.; No. 79, 10p.(1969). (In English).
Complete conversion of tar at 850-1000°; maximum gas yield at 850°; water gas reaction intensified above 1000°; at 1300° and 150% steam, gas was only product. COAL TAR; CRACKING; TEMPERATURE DEPENDENCE; STEAM
- 07145 TAR CRACKING. 3. CRACKING OF TARS ON BEDS OF COKE AND CATALYSTS IN STATIC-BED REACTORS BETWEEN 400° AND 1000°. Hesp, W.R.; Philipp, D.H.; Waters, P.L. (Div. Miner. Chem., CSIRO, Chatswood, Aust.). Aust., Commonw. Sci. Ind. Res. Organ., Div. Miner. Chem., Invest. Rep.; No. 78, 24p.(1969). (In English).
Tar conversion and C yield increased with increased temperature and time while gas yields increased and then declined. COAL TAR; CRACKING; COKE; CATALYSTS; HIGH BTU GAS; PRODUCTION
- 07146 KINETIC STUDIES ON THE PYROLYSIS, DESULFURIZATION, AND THE GASIFICATION OF COALS WITH EMPHASIS ON THE NONISOTHERMAL KINETIC METHOD. Vestal, M.L.; Day, A.G., III; Snyderman, J.S.; Fergusson, G.J.; Lampe, F.W. (Sci. Res. Instrum. Corp., Baltimore, MD). U. S. Govt. Res. Develop. Rep.; 69: No. 22, 48(1969). (In English).
Objective was to determine kinetics of desulfurization as aid to design, operation, and evaluation of new process systems for practical desulfurization. CHEMICAL REACTION KINETICS; PYROLYSIS; DESULFURIZATION; COAL; COAL GASIFICATION
- 07147 Polspalanie i Zgazowanie Paliw. (SEMICOMBUSTION AND GASIFICATION OF FUELS). Szpilewicz, A. Warsaw, Poland; Slask (1969). 187p.
FOSSIL FUELS; COMBUSTION; GASIFICATION; POLAND
- 07148 COAL PYROLYSIS USING LASER IRRADIATION. Karn, F.S.; Friedel, R.A.; Sharkey, A.G., Jr. (Pittsburgh Coal Res. Center, Bur. of Mines, Pittsburgh, PA). Fuel; 48: No. 3, 297-303(1969). (In English).
Product high in methane but very low in acetylene when done at coking temperatures but high in acetylene with lasers. COAL; PYROLYSIS; LASER RADIATION; METHANE; PRODUCTION
- 07149 TAR CRACKING. 1. CRACKING OF COAL CARBONIZATION PRODUCTS ON A FLUIDIZED BED OF CONTACT MATERIAL (CHAR OR PETROLEUM COKE). Hesp, W.R.; Nerowicz, R.J.; Waters, P.L. (Div. Miner. Chem., CSIRO, Chatswood, Aust.). Aust., Commonw. Sci. Ind. Res. Organ., Div. Miner. Chem., Invest. Rep.; No. 76, 11p.(1969). (In English).
COAL TAR; CRACKING; FLUIDIZED BED; CHAR; COKE; PETROLEUM PRODUCTS
- 07150 ADVANCES IN RESEARCH ON COAL PYROLYSIS. Harald, J.; Van Heek, K.H. (Forschungsinst. Steinkohlenbergbauver., Bergbau-Forsch. GmbH, Essen-Kray, Ger.). Brennst.-Chem.; 50: No. 6, 172-8(1969). (In German).
Coal pyrolysis at extremely high temperatures reviewed; ethylene formation; 63 references. COAL; PYROLYSIS; RESEARCH PROGRAMS; REVIEWS; CHEMICAL REACTION KINETICS; ETHYLENE; PRODUCTION

- 07151 PROGRESSES MADE IN THE RESEARCH OF PYROLYSIS OF BITUMINOUS COAL. Juentget, H.; Van Heek, K.H. Brennst.-Chem.; 50: No. 6, 172-8 (Jun 1969). (Translated from German). From DGMK Annual Meeting; Salzburg, Germany (7-9 Oct 1968).
Reaction kinetics of gas formation. BITUMINOUS COAL; COAL; PYROLYSIS; CHEMICAL REACTION KINETICS; ULTRAHIGH TEMPERATURE; GASEOUS PRODUCTS
- 07152 COMBUSTION OF SULFUR-CONTAINING COAL. Pelczarski, E.A.; Karnavas, J.A. (to Black, Sivals and Bryson, Inc.). German (FRG) Patent 1,915,248. 23 Oct 1969.
Gases purified by passing S-containing fuel and O under surface of both containing melted CaO and Fe; S reacts to form CaS that is removed and processed to give S or H sulfide. COAL; COMBUSTION; SULFUR; CALCIUM OXIDES; OXYGEN; IRON; CALCIUM SULFIDES; HYDROGEN SULFIDES; CARBON MONOXIDE; CHEMICAL REACTIONS; REMOVAL
- 07153 HYDROCARBON FUELS BY PYROLYSIS OF COAL. Cochran, N.P. (to United States Dept. of Interior). US Patent 3,477,942. 11 Nov 1969.
First portion of char passed to fuel cell or MHD device to produce d.c. and second portion to apparatus where char with steam forms producer gas. COAL; PYROLYSIS; HYDROCARBONS; SYNTHETIC FUELS; PRODUCTION; HYDROGENATION; COAL GASIFICATION; LIQUID PRODUCTS; CHAR; ELECTRIC POWER; STEAM; CHEMICAL REACTIONS; PRODUCER GAS
- 07154 RAPID THERMAL DECOMPOSITION OF BITUMINOUS COALS. PAPER NO. 49. Mentser, M.; O'Donnell, H.J.; Ergun, S. (US Bur. Mines, Pittsburgh, PA). American Chemical Society, Division of Fuel Chemistry. 160. ACS National Meeting, Chicago, IL, Sep 14-18, 1970. Washington, DC; American Chemical Society, Division of Fuel Chemistry (1970).
From 160. ACS National Meeting; Chicago, IL (14 Sep-18 Sep 1970).
Devolatilization of vitrains in vacuo by rapid heating. COAL; PYROLYSIS; BITUMINOUS COAL; FLASH HEATING; VOLATILITY; GASEOUS PRODUCTS
- 07155 PROJECT COED: COAL PYROLYSIS PILOT PLANT. PAPER NO. 8. Jones, J.F. (FMC Corp., Princeton, NJ). American Chemical Society, Division of Fuel Chemistry. 160. ACS National Meeting, Chicago, IL, Sep 14-18, 1970. Washington, DC; American Chemical Society, Division of Fuel Chemistry (1970).
From 160. ACS National Meeting; Chicago, IL (14 Sep-18 Sep 1970).
Recovery and processing of oil, gas, and char. COAL; PYROLYSIS; COED PROCESS; PRODUCTION; OILS; HYDROGENATION; SYNTHETIC PETROLEUM; GASES; METHANATION; HIGH BTU GAS; HYDROGEN; CHAR; BOILER FUEL; GASIFICATION; FLUIDIZED BED; PILOT PLANTS
- 07156 ADVANCES IN THE STUDY OF THE THERMAL DECOMPOSITION OF COALS. Sklyar, M.G.; Shustikov, V.I. (Ukr. Nauch.-Issled. Uglekhim. Inst., Kharkov, USSR). Khim. Tverd. Topl.; 2: 30-9 (1970).
COAL; PYROLYSIS; REVIEWS; CHEMICAL REACTION KINETICS
- 07157 CLEAN POWER FROM COAL. Squires, A.M. (City Coll., City Univ. of New York, New York, NY). Science; 169: No. 3948, 821-8 (1970).
Review with 33 references. COAL; COMBUSTION; REVIEWS; SULFUR OXIDES; REMOVAL
- 07158 KINETICS OF HETEROGENEOUS REACTIONS DURING COMBUSTION OF SOLID FUELS. Peters, W. (Bergbau-Forsch. GmbH, Essen-Kray, Ger.). VDI (Ver. Deut. Ing.) Ber.; No. 146, 10-14 (1970).
Review describing techniques for measuring combustion kinetics; 23 references. CHEMICAL REACTION KINETICS; COMBUSTION; SOLIDS; REVIEWS; COAL
- 07159 SOLID AND GASEOUS PRODUCTS FROM LASER PYROLYSIS OF COAL. Karn, F.S.; Friedel, R.A.; Sharkey, A.G., Jr. (Pittsburgh Energy Res. Cent., U. S. Bur. of Mines, Pittsburgh, PA). Am. Chem. Soc., Div. Fuel Chem., Preprints; 14: No. 5, 101-7 (1970). (In English).
COAL; PYROLYSIS; LASERS
- 07160 (BM-RI--7328) COAL INVESTIGATIONS USING LASER IRRADIATION. Karn, F.S.; Sharkey, A.G., Jr.; Logar, A.F.; Friedel, R.A. Jan 1970. 37p. (PB--190031). CFSTI \$6.00.
Effects of coal rank on nature of gaseous products yielded. COAL; PYROLYSIS; LASER RADIATION; IRRADIATION; HEATING; COAL RANK; GASEOUS PRODUCTS; CHEMICAL ANALYSIS; HYDROGEN; ACETYLENE; PRODUCTION
- 07161 LIQUID HYDROCARBONS BY DRY DISTILLATION OF BITUMINOUS OR OIL-CONTAINING MATERIALS. Schmalfeld, P.; Sommers, H.; Janssen, H. (to Metallgesellschaft). German (FRG) Patent 1,809,874. 4 Jun 1970. 34p.
Dry distillation at 450-650° of coal, lignite, oil shale, or oil sand. HYDROCARBONS; PRODUCTION; LIQUID PRODUCTS; COAL; LIGNITE; OIL SHALES; OIL SANDS; DISTILLATION
- 07162 REACTION KINETICS IN COAL PYROLYSIS. PAPER NO. 11. Wiser, W.H. (Dept. Mineral Engineering, Univ. of Utah, Salt Lake City, Utah). American Chemical Society, Division of Fuel Chemistry. 162. ACS National Meeting, Washington, DC, Sep 13-16, 1971. Washington, DC; American Chemical Society, Division of Fuel Chemistry (1971).
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COAL; PYROLYSIS; CHEMICAL REACTION KINETICS
- 07163 FRACTIONS FROM THE VACUUM DISTILLATION OF A COAL HYDROGENATE. Nefedova, L.N.; Larina, N.K.; Smutkina, Z.S.; Kasatochkin, V.I.; Petrovskaya, L.B.; Nazarova, N.I. (Inst. Goryuch. Iskop., USSR). Khim. Tverd. Topl.; 1: 80-7 (1971).
Higher-boiling material contains higher percentage of aromatic fraction. COAL; HYDROGENATION; DISTILLATION; USSR; LIQUID PRODUCTS; AROMATICS
- 07164 HIGH-SPEED PYROLYSIS OF BROWN COAL IN A STREAM [OF STEAM]. Kaftanov, S.V.; Fedoseev, S.D.; Rusinovskaya, N.N.; Keldasheva, N.A.; Bukharov, B.N.; Sobolevskii, A.L. (Mosk. Khim.-Tekhnol. Inst. im. Mendeleeva, Moscow, USSR). Khim. Tverd. Topl.; 6: 21-6 (1971). (In Russian).
COAL; BROWN COAL; PYROLYSIS; SUPERHEATED STEAM; USSR; COAL TAR; COAL GAS; PRODUCTION; EQUIPMENT
- 07165 (EN--1995) CHAR OIL ENERGY DEVELOPMENT. Jones, J.F.; Schoemann, F.H.; Hamshar, J.A.; Eddinger, R.T. (FMC Corp., Princeton, N.J. (USA). Chemical Research and Development Center). 1971. 310p.
COED process for pyrolysis of bituminous coal. BITUMINOUS COAL; COAL; PYROLYSIS; COED PROCESS; PILOT PLANTS; PRODUCTION; SYNTHETIC PETROLEUM; HYDROCRACKING; CHAR; GASIFICATION; HYDROGEN; HIGH BTU GAS; CATALYSTS
- 07166 COED [CHAR OIL ENERGY DEVELOPMENT] PLANT FOR COAL CONVERSION. Strom, A.H.; Eddinger, R.T. (FMC Corp., Princeton, NJ). Chem. Eng. Progr.; 67: No. 3, 75-80 (1971).
Pyrolysis of coal with heating value 12.800 Btu/lb. COED PROCESS; COAL; PYROLYSIS; SYNTHETIC PETROLEUM; FUEL GAS; PRODUCTION; HYDROCARBONS; LIQUID PRODUCTS; FLUIDIZED BED

- 07167 REGENERATIVE LIMESTONE PROCESS FOR FLUIDIZED BED COAL COMBUSTION AND DESULFURIZATION. Hammons, G.A.; Skopp, A. (Gov. Res. Div., Esso Res. Eng. Co., Linden, NJ). Govt. Rep. Announc. (U. S.); 71: No. 13, 88(1971).
Lime in bed reacts with S dioxide and O to form Ca sulfate. COAL; COMBUSTION; FLUIDIZED BED; DESULFURIZATION; CALCIUM OXIDES; SULFUR DIOXIDE; EQUIPMENT
- 07168 SLOW THERMAL DECOMPOSITION OF CHUKUROVO COAL AT ATMOSPHERIC PRESSURE AND IN VACUO IN THE 200-800° RANGE. Donchev, S.; Peev, S. (Bulgaria). God. Vissh. Khimikotekhnol. Inst., Sofia; 14: No. 2, 207-27(1971). (In Bulgarian).
In vacuum, yield of tar and gas increased. COAL; PYROLYSIS; HIGH TEMPERATURE; MEDIUM PRESSURE; COAL GAS; COAL TAR; PRODUCTION
- 07169 (EN-2309) PILOT-SCALE DEVELOPMENT OF THE CSF PROCESS. (Consolidation Coal Co., Library, Pa. (USA). Research Div.). Aug 1971. 640p. GPO \$5.75.
Operational problems. COAL; PYROLYSIS; CSF PROCESS; PILOT PLANTS; OPERATION; SOLVENT EXTRACTION; CARBONIZATION; HYDROGENATION; LIQUID PRODUCTS
- 07170 HYDROGENATION OF COED PROCESS COAL-DERIVED OILS. Jacobs, H.E.; Jones, J.F.; Eddinger, R.T. Ind. Eng. Chem., Process Design Develop.; 10: No. 4, 558-62(Oct 1971).
From Amer. Chem. Soc., Div. of Hydrogen Processing of Solid and Liquid Fuels, 160th Meeting; Chicago, IL (Sep 1970).
Over fixed bed nickel-molybdenum catalysts. COAL; PYROLYSIS; COED PROCESS; PRODUCTION; OILS; HYDROGENATION; HIGH PRESSURE; CATALYSTS; NICKEL; MOLYBDENUM
- 07171 FORMATION OF HYDROCARBONS DURING THE THERMAL DEGRADATION OF KUZNETSK COALS. Bronshtein, A.P.; Makarov, G.N.; Platonov, V.V.; Slivinskaya, I.I. Sin., Anal. Strukt. Org. Soedin.; No. 4, 114-22(1972). (In Russian).
Dependence of total yield of hydrocarbons and their components on heating conditions. HYDROCARBONS; PRODUCTION; COAL; PYROLYSIS; TEMPERATURE DEPENDENCE; CHEMICAL REACTION YIELD
- 07172 SOLID AND GASEOUS PRODUCTS FROM LASER PYROLYSIS OF COAL. Karn, F.S.; Friedel, R.A.; Sharkey, A.G., Jr. (Pittsburgh Energy Res. Cent., U. S. Bur. of Mines, Pittsburgh, PA). Fuel; 51: No. 2, 113-15(1972). (In English).
Use of pulsed ruby laser to produce gas with high concentration of H and CH₂ and solid with approximately same elemental composition as original coal. PYROLYSIS; LASERS; COAL
- 07173 CLEAN POWER SYSTEMS USING FLUIDIZED-BED COMBUSTION. Squires, A.M. (City Coll., City Univ. New York, New York, NY). Air. Pollut. Contr. Off. (U. S.) Publ.; AP109: No. IV-1, 10p.(1972). (In English).
FLUIDIZED BED; COMBUSTION; COAL; DESULFURIZATION
- 07174 COMPOSITION OF GASES OF THERMAL DECOMPOSITION OF COAL DUST FROM KARAGANDA BASIN COAL BEDS. Grashchenkov, N.F.; Khar'kovskii, V.S. (USSR). Vses. Konf. Vop. Ispareniya, Gorennya Gazov. Din. Dispersn. Sist. 11th; 48: (1972).
Heating coal dust to 700° leads to rapid evolution of volatile compounds; combustible gas constitutes more than 94% of total volume of sample, portion of methane and H exceeds 80%. COAL; DUSTS; PYROLYSIS; COAL GAS; PRODUCTION; DISTILLATION
- 07175 HYDROCRACKING OF MONTANA COALS THROUGH THE USE OF MASSIVE QUANTITIES OF MOLTEN SALT CATALYSTS. Scarrah, W.P. Bozeman, MT; Montana State Univ. (1973). 109p.
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Thesis (Ph. D.).
CRACKING; COAL; MONTANA; ZINC CHLORIDES; CATALYSTS; MIXING; SIZE; HIGH PRESSURE; MINING; ALKALI METAL COMPOUNDS
- 07176 STUDY OF THE STRUCTURE AND THE SURFACE OF AN ALUMINIUM-COBALT-MOLYBDENUM CATALYST. El'bert, E.I.; Tryasunov, B.G. (Eastern Coal-Chemical Scientific-Research Inst., Novokuznetsk, USSR). Kinet. Catal. (USSR) (Engl. Transl.); 14: No. 4, 942-946(1973).
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CATALYSTS; ALUMINIUM ALLOYS; COBALT ALLOYS; MOLYBDENUM ALLOYS; COAL; CRACKING; PYROLYSIS; DISTILLATES; COAL TAR; SURFACES; CRYSTAL STRUCTURE; MOLYBDENUM OXIDES; ALUMINIUM OXIDES; HIGH TEMPERATURE
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