

- WATER GAS; CARBON MONOXIDE; HYDROGEN; REDUCTION; COBALT CARBIDES; FISCHER-TROPSCH SYNTHESIS; CATALYSTS; THORIUM OXIDES; KIESELGUHR; CHEMICAL REACTION KINETICS; HYDROCARBONS; PRODUCTION; HYDROGENATION
- 05853 PRODUCTION OF SYNTHETIC GASOLINE FROM CARBON MONOXIDE AND HYDROGEN AT ORDINARY PRESSURE. XLIX. INFLUENCE OF VARIOUS METALS, METAL OXIDES AND PRECIPITANTS ON FE—CU—KIESELGUHR CATALYSTS. Murata, Y.; Makino, S.; Tuneoka, S. Sci. Pap. Inst. Phys. Chem. Res. (Jap.); 35: 356-64(1939).
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- 05854 PRODUCTION OF SYNTHETIC GASOLINE FROM CARBON MONOXIDE AND HYDROGEN AT ORDINARY PRESSURE. XLVIII. INFLUENCE OF ADDITION OF COPPER AND ALKALI ON NEW IRON CATALYSTS. Murata, Y.; Makino, S.; Tuneoka, S. Sci. Pap. Inst. Phys. Chem. Res. (Jap.); 35: 348-55(1939).
Effects on saturation degree of gasoline yield. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; GASOLINE; CATALYSTS; IRON; KIESELGUHR; POTASSIUM CARBONATES; COPPER; NICKEL
- 05855 EXPERIMENTS ON THE FISCHER--TROPSCH SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Herington, E.F.G.; Woodward, L.A. Trans. Faraday Soc.; 35: 958-66(1939).
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- 05856 PRODUCTION OF SYNTHETIC GASOLINE FROM CARBON MONOXIDE AND HYDROGEN AT ORDINARY PRESSURE. XLVII. COMPOSITION OF STARTING GASES WITH NEW IRON CATALYST. Tuneoka, S.; Murata, Y.; Makino, S. Sci. Pap. Inst. Phys. Chem. Res. (Jap.); 35: 337-47(1939).
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- 05857 HYDROGENATION OF TWO TARS FROM IRAQ. Leopold, A. Ann. Combustible Liquides; 14: 513-30(1939).
At 350 to 450°C and 100 to 250 atm; effects of Al silicate coating on Ni—Cr—Mo steel reactor vessel on yields of gas oil and gasoline. COAL TAR; HYDROGENATION; HIGH TEMPERATURE; HIGH PRESSURE; PROTECTIVE COATINGS; ALUMINIUM SILICATES; STEELS; CHROMIUM-MOLYBDENUM STEELS; NICKEL-CHROMIUM STEELS; LIQUID PRODUCTS; GASOLINE; PRODUCTION
- 05858 APPROACH TO THEORETICALLY POSSIBLE YIELDS IN THE FISCHER-PICHLER INTERMEDIATE-PRESSURE SYNTHESIS. Fischer, F.; Pichler, H.; Dienst, W. Brennstoff.-Chem.; 20: 221-8(1939).
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- 05859 HYDROCARBONS. (to I. G. Farbenindustrie). French Patent 49,333. 17 Feb 1939.
Production of liquid hydrocarbons by hydrogenation of CO using catalysts prepared by reducing compounds of metals belonging to 8th periodic group. CARBON MONOXIDE; REDUCTION; LIQUIDS; HYDROCARBONS; PRODUCTION; CATALYSTS; HYDROGENATION; CHEMICAL PREPARATION
- 05860 HYDROGENATION OF A MIXTURE OF COAL AND HEAVY OILS. Ando, S. (to Director of Nenryo Kenkyuzyo). Japanese Patent 129,608. 6 Apr 1939.
Using organometallic catalyst, MeHgCl, Me₃SnBr, or Et₃PbI. COAL; OILS; HYDROGENATION; CATALYSTS; ORGANOMETALLIC COMPOUNDS; MERCURY CHLORIDES; TIN BROMIDES; LEAD IODIDES
- 05861 SYNTHESIS OF HYDROCARBON OILS. Tutumi, S. (to Director of Nenryo Kenkyuzyo). Japanese Patent 130,554. 15 Jun 1939.
From CO and H₂ at <50 atm and 165°C passed over Ni and Cr salts with or without carrier. CARBON MONOXIDE; HYDROGEN; HYDROGENATION; REDUCTION; CATALYSTS; NICKEL COMPOUNDS; CHROMIUM COMPOUNDS; KIESELGUHR; MEDIUM PRESSURE; HIGH TEMPERATURE; ASBESTOS
- 05862 CATALYTIC HYDROGENATION OF CARBON MONOXIDE TO FORM HYDROCARBONS. Dufschmid, F.; Linckh, E.; Winkler, F. (to I. G. Farbenind.). US Patent 2,207,581. 9 Jul 1939.
At 200-420° using an Fe catalyst. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; MEDIUM TEMPERATURE; HIGH TEMPERATURE; CATALYSTS; IRON
- 05863 PRODUCING UNSATURATED HYDROCARBONS. (to I. G. Farbenind.). French Patent 843,844. 11 Jul 1939.
By reduction of CO using Co, Ni, mixtures of Fe and Cu, Ti oxide, or metals of the Fe group with Mn and Cu or with Al or with Th oxide as catalysts. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; MEDIUM TEMPERATURE; HIGH TEMPERATURE; CATALYSTS; COBALT; NICKEL; IRON; TITANIUM OXIDES; MANGANESE; COPPER; ALUMINIUM; THORIUM OXIDES
- 05864 CONVERTING CARBON MONOXIDE AND HYDROGEN INTO HYDROCARBONS. (to Heinrich Koppers Industrielle Maatschappij). French Patent 843,874. 11 Jul 1939.
A 2-step reduction using Fe as the first catalyst and Ni or Co as the second catalyst. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; CATALYSTS; IRON; NICKEL; COBALT
- 05865 HYDROCARBON OILS. Myddleton, W.W. British Patent 509,325. 14 Jul 1939.
Production at 180 to 210°C using Co catalyst impregnated with K₂CO₃. HYDROCARBONS; OILS; CARBON MONOXIDE; HYDROGENATION; REDUCTION; ALKALI METAL COMPOUNDS; CARBONATES; POTASSIUM CARBONATES; COBALT; CATALYSTS; HIGH TEMPERATURE; SULFUR; PRODUCTION
- 05866 REACTIVATION OF CATALYSTS FOR HYDROGENATION OF CARBON MONOXIDE. Roelen, O.; Heckel, H.; Hanisch, F. (to Hydrocarbon Synthesis Corp.). US Patent 2,289,731. 14 Jul 1939.
Co, ThO₂, and MgO. CATALYSTS; REGENERATION; CARBON MONOXIDE; REDUCTION; COBALT; THORIUM OXIDES; MAGNESIUM OXIDES; HYDROCARBONS; PRODUCTION
- 05867 HYDROCARBONS. (to Metallgesellschaft). British Patent 510,514. 2 Aug 1939.
Catalytic hydrogenation of diluted synthesis gas at 150 to 300°C and 10 to 100 atm. CARBON MONOXIDE; REDUCTION; HYDROGENATION; FISCHER-TROPSCH SYNTHESIS; PRODUCTION; HYDROCARBONS; CATALYSTS
- 05868 HYDROCARBONS. (to Metallgesellschaft). British Patent 510,513. 2 Aug 1939.
Cyclic catalytic hydrogenation of diluted synthesis gas containing 20% inert material. CARBON MONOXIDE; REDUCTION; HYDROGENATION; HYDROCARBONS; PRODUCTION; CATALYSTS; MEDIUM

- PRESSURE; FISCHER-TROPSCH SYNTHESIS
- 05969 FUELS AND MOTOR FUELS. (to I. G. Farbenindustrie). British Patent 512,498. 18 Sep 1939.
 Solvent extraction of low m.p. constituents from coal extracts. SYNTHETIC FUELS; SOLVENT EXTRACTION; COAL; COAL LIQUEFACTION; PRODUCTION
- 05870 SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Scheuermann, A.; Marecek, E. (to Alien Property Custodian). US Patent 2,296,405. 22 Sep 1939.
 Using a catalyst containing Fe and Ni. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; CATALYSTS; IRON; NICKEL; CHEMICAL PREPARATION; PRECIPITATION; SOLUTIONS; POTASSIUM CARBONATES
- 05871 HYDROGENATING SOLID FUELS. (to Societe Belge de l'Azote et des Produits Chimiques der Marly and Societe Chimique de la Grande Paroisse). French Patent 847,110. 3 Oct 1939.
 Distillation of products from noncatalyzed hydrogenation of solid fuel in oil at 1000 atm and 500°C followed by catalyzed hydrogenation of nondistillable fraction at <1000 atm and 400 to 500°C. COAL; CARBONACEOUS MATERIALS; HYDROGENATION; HIGH PRESSURE; HIGH TEMPERATURE; CATALYSTS; DISTILLATION
- 05872 MOTOR FUELS. (to Process Management Co., Inc.). British Patent 513,674. 19 Oct 1939.
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- 05873 CARBON MONOXIDE--HYDROGEN MIXTURES. Steinschlaeger, M. (to London Testing Laboratory Ltd.). British Patent 513,778. 23 Oct 1939.
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- 05874 HYDROGENATING COAL. (to International Hydrogenation Patents Co.). French Patent 50,068. 20 Nov 1939.
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- 05875 HYDROCARBONS HIGH IN OLEFINS FROM CARBON MONOXIDE AND HYDROGEN. Steinschlaeger, M. (to London Testing Laboratory Ltd.). British Patent 515,037. 24 Nov 1939.
 Using Co catalyst at 180 to 210°C, then Fe catalyst at 200 to 240°C and 0 to 10 atm. CARBON MONOXIDE; HYDROGENATION; REDUCTION; WATER GAS; COAL GAS; COBALT; CATALYSTS; HIGH TEMPERATURE; HYDROCARBONS; IRON
- 05876 HYDROGENATION OF A PITTSBURGH SEAM COAL. Storch, H.H.; Fisher, C.H.; Eisner, A.; Clarke, L. Ind. Eng. Chem.; 32: 346-53(1940).
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- 05877 OIL FROM COAL. Vogel, J.C. S. African Mining Eng. J.; 51: 107-10(1940).
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- CATALYSTS; REDUCTION
- 05878 BENZINE SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN. LIII. INFLUENCE OF ALUMINIUM OXIDE, SILVER, AND OTHER ADDITION AGENTS UPON THE IRON CATALYST. Makino, S.; Koide, H.; Murata, Y. J. Soc. Chem. Ind., Japan; 43: 235-41(1940).
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- 05879 HIGH-PRESSURE HYDROGENATION OF LOW-TEMPERATURE TAR. XVI. EFFECT OF MIXING RATIO IN MOLYBDENUM OXIDE-ACTIVATED CLAY CATALYST. Ando, S.; Usiba, T. J. Soc. Chem. Ind., Japan; 43: 221-3(1940).
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- 05882 CATALYTIC HIGH-PRESSURE HYDROGENATION [OF COAL, TARS, ETC.] FOR PRODUCTION OF MOTOR FUELS. Hedicke, G. Z. Kompr. Fluss. Gase; 35: 51-60, 71-6(1940).
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- 05886 HYDROGENATION OF ANTHRAXYLON (VITRAIN) FROM PEAT, BROWN COAL, LIGNITE, SUBBITUMINOUS COAL, BITUMINOUS COAL, AND ANTHRACITE. EFFECT OF RANK IN COAL HYDROGENATION. Fisher, C.H.; Sprunk, G.C.; Eisner, A.; Clarke, L.; Fein, M.L.; Storch, H.H. Fuel; 19: 132-8, 162-72(1940).
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- COAL RANK
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- ALUMINIUM SILICATES; ALUMINIUM CHLORIDES; ALUMINIUM SULFATES; SILVER; SILVER OXIDES; BARIUM; CALCIUM; CADMIUM; BISMUTH; LEAD; TIN; TUNGSTEN
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- 05896 BENZINE SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN UNDER ORDINARY PRESSURE. LIV. INFLUENCE OF CARBON DIOXIDE IN THE INITIAL GAS UPON THE IRON CATALYST. Murata, Y.; Yamada, T. *Sci. Pap. Inst. Phys. Chem. Res. (Jap.)*; 38: 118-31(1940). (In German).
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- 05908 HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Linckh, E. (to William E. Currie). US Patent 2,234,568. 11 Mar 1940. Introduction of volatile metal carbonyl into reaction chamber of which catalyst is part of wall. CARBON MONOXIDE; HYDROGEN; CATALYSTS; REDUCTION; HYDROGENATION; HYDROCARBONS; PRODUCTION; CARBONYLS
- 05909 HYDROCARBONS FROM MATERIALS SUCH AS A MIDDLE OIL FROM THE CARBONIZATION OF BROWN-COAL TAR. Pier, M.; Fuener, W.v.; Simon, W. (to Standard Catalytic Co.). US Patent 2,238,851. 15 Apr 1940. Preparation of metal sulfide catalyst for thermal treatment at 300 to 600°C. HYDROGENATION; HIGH TEMPERATURE; CATALYSTS; MIXTURES; SULFIDES; CHEMICAL PREPARATION; COAL TAR OILS; AMMONIUM COMPOUNDS; NICKEL CARBONATES; HEATING
- 05910 SYNTHESIZING HYDROCARBON FUELS. Holding, S.A. (to Societe Internationale des Carburants and des Industries Chimiques "Brevets Conalvo"). Belgian Patent 438,756. 20 Apr 1940. Via hydrogenation of CO produced from pyrolysis of coal. HYDROCARBONS; COAL; HYDROGENATION; PRODUCTION; CARBON MONOXIDE; REDUCTION; ALUMINIUM OXIDES; CHARCOAL; IRON; HIGH TEMPERATURE; ZINC OXIDES; CATALYSTS
- 05911 CONVERSION OF TARS, MINERAL OILS, ETC., INTO LOW-BOILING HYDROCARBONS. Herold, P.; Kaufmann, H. (to I. G. Farbenindustrie). German(FRG) Patent 692,813. 30 May 1940. Hydrogenation under pressure using catalysts of Mo or W compounds. COAL TAR; MINERAL OILS; HYDROCARBONS; CARBONACEOUS MATERIALS; MOLYBDENUM COMPOUNDS; TUNGSTEN COMPOUNDS; CATALYSTS; SALTS; HYDROGENATION
- 05912 CATALYTIC PRODUCTION OF PARAFFIN AND OLEFIN HYDROCARBONS FROM GASEOUS MIXTURES CONTAINING CARBON MONOXIDE AND HYDROGEN. Herbert, W. (to American Lurgi Corp.). US Patent 2,244,196. 3 Jun 1940. CARBON MONOXIDE; HYDROGEN; HYDROGENATION; REDUCTION; ALKANES; ALKENES; CATALYSTS; MEDIUM TEMPERATURE; HIGH TEMPERATURE; HIGH PRESSURE; MEDIUM PRESSURE; LIQUID PRODUCTS; GASEOUS PRODUCTS; PRODUCTION
- 05913 HYDROCARBONS FROM GASES CONTAINING CARBON MONOXIDE AND HYDROGEN. Koelbel, H. (to Koppers Co.). US Patent 2,244,710. 10 Jun 1940. Using Fe catalyst; further treatment using Co or Ni catalyst. CARBON MONOXIDE; HYDROGEN; REDUCTION; HYDROGENATION; PRODUCTION; HYDROCARBONS; CATALYSTS; IRON; COBALT; NICKEL
- 05914 CATALYST FOR THE HYDROGENATION OF COAL, TAR, AND MINERAL OIL. (to N.-V. de Bataafsche Petroleum Maatschappij). German(FRG) Patent 693,707. 20 Jun 1940. Re or Rh compounds. COAL; TAR; MINERAL OILS; HYDROGENATION; DESULFURIZATION; CATALYSTS; RHENIUM; RHENIUM COMPOUNDS; CHEMICAL PREPARATION
- 05915 HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Herbert, W. (to American Lurgi Corp.). US Patent 2,247,087. 24 Jun 1940. Using catalysts from 8th group of periodic system, difficultly reducible metal compounds, and carrier substances at > atm pressure and temperature below which CH₄ is formed. HYDROCARBONS; PRODUCTION; IRON; COBALT; NICKEL; INORGANIC COMPOUNDS; MATRIX MATERIALS; CATALYSTS; REDUCTION; CARBON MONOXIDE; HYDROGENATION; HYDROGEN
- 05916 HYDROCARBONS FROM HYDROGEN AND CARBON MONOXIDE. Linckh, E. (to Standard Catalytic Co.). US Patent 2,287,891. 30 Jun 1940. Using a catalyst obtained by treating fused ferrosiferrous oxide with a reducing gas at about 300-850°. CARBON MONOXIDE; REDUCTION; PRODUCTION; HYDROCARBONS; CATALYSTS; IRON OXIDES; MEDIUM TEMPERATURE; HIGH TEMPERATURE
- 05917 HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Linckh, E.; Winkler, F. (to William E. Currie). US Patent 2,248,099. 8 Jul 1940. Hydrogenation at 150 to 500°C and 5 to 500 atm. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; HYDROGEN; HYDROGENATION; HIGH TEMPERATURE; HIGH PRESSURE; MEDIUM PRESSURE; REDUCTION
- 05918 SYNTHESIS OF LIQUID HYDROCARBONS FROM GAS MIXTURES CONTAINING CARBON MONOXIDE AND HYDROGEN. Riblett, E.W. (to M. W. Kellogg Co.). US Patent 2,250,421. 22 Jul 1940. Method involving synthesis and decomposition of metal carbonyls. CARBON MONOXIDE; HYDROGENATION; REDUCTION; NICKEL; COBALT; IRON; CARBONYLS; LIQUID PRODUCTS; PRODUCTION; HYDROCARBONS; ORGANOMETALLIC COMPOUNDS; POWDERS
- 05919 DIESEL ENGINE FUEL FROM COAL-TAR OILS. Koelbel, H. US Patent 2,209,123. 23 Jul 1940. Treating oils with paraffinic hydrocarbons, b.p. 180 to 380°C, and H₂SO₄, then separating refined oils. COAL TAR; SYNTHETIC FUELS; PRODUCTION; ALKANES; MEDIUM TEMPERATURE; BOILING POINTS; SULFURIC ACID; SEPARATION PROCESSES
- 05920 LOW-BOILING HYDROCARBONS FROM COAL, TAR, MINERAL OIL, ETC., BY HYDROGENATION. Pier, M.; Simon, W.; Kroenig, W. (to I. G. Farbenindustrie). German(FRG) Patent 695,524. 25 Jul 1940. Using additions of acetic, formic, or oxalic acids and sulfides, halides, phosphides, oxides, carbonates, or oxalates of Zn, Al, Ti, Sn, Pb, V, Bi, Cr, Mo, W, U, Mn, Fe, Ni, or Co. ACETIC ACID; FORMIC ACID; OXALIC ACID; COAL; COAL TAR; MINERAL OILS; HYDROGENATION; CHEMICAL REACTION KINETICS; SULFIDES; HALIDES; PHOSPHIDES; OXIDES; CARBONATES; OXALATES; ZINC COMPOUNDS; ALUMINIUM COMPOUNDS; TITANIUM COMPOUNDS; TIN COMPOUNDS; LEAD COMPOUNDS; VANADIUM COMPOUNDS; BISMUTH COMPOUNDS; CHROMIUM COMPOUNDS; MOLYBDENUM

- COMPOUNDS; TUNGSTEN COMPOUNDS; URANIUM COMPOUNDS; MANGANESE COMPOUNDS; IRON COMPOUNDS; NICKEL COMPOUNDS; COBALT COMPOUNDS; CATALYSTS
- 05921 LIQUID HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Sabel, F.; Laudenklos, H.; Wenzel, W.; Keilig, F. (to Standard Catalytic Co.). US Patent 2,251,554. 5 Aug 1940.
Using Co--Th oxides catalyst. CARBON MONOXIDE; REDUCTION; HYDROGENATION; CATALYSTS; COBALT OXIDES; THORIUM OXIDES; REGENERATION; LIQUID PRODUCTS; HYDROCARBONS
- 05922 HYDROGENATING CARBON MONOXIDE. Michael, W.; Jaekch, W. (to Wm. E. Currie). US Patent 2,211,022. 13 Aug 1940.
Using catalysts of iron oxide or aluminium oxide. CARBON MONOXIDE; HYDROGENATION; CATALYSTS; LIQUIDS; SOLIDS; HYDROCARBONS; IRON HYDROXIDES; ALUMINIUM HYDROXIDES; HIGH TEMPERATURE; GASES; REDUCTION
- 05923 HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Michael, W.; Jaekch, W. (to William E. Currie). US Patent 2,254,748. 2 Sep 1940.
Catalytic reduction. CARBON MONOXIDE; HYDROGENATION; REDUCTION; HYDROCARBONS; HIGH TEMPERATURE; CATALYSTS
- 05924 LIQUID PRODUCTS FROM PRESSURE EXTRACTS OF SOLID CARBONACEOUS MATERIALS. Buetefisch, H.; Winkler, K.; Kaufmann, H.; Bemann, R. (to Standard-I.G. Co.). US Patent 2,215,869. 24 Sep 1940.
COAL; CARBONACEOUS MATERIALS; LIQUID PRODUCTS; GASOLINE; SYNTHETIC FUELS; HYDROGENATION; COAL EXTRACTS; PRODUCTION
- 05925 SYNTHESIS OF HYDROCARBONS FROM MIXTURES OF CARBON MONOXIDE AND HYDROGEN. Potts, H.E. British Patent 526,814. 26 Sep 1940.
Passed over quartz or bauxite at 1000 to 1250°C; freed from H₂S using Fe oxide, cooled and passed over Co--Th oxide catalyst at 180°C. CARBON MONOXIDE; HYDROGENATION; REDUCTION; HYDROCARBONS; PRODUCTION; VERY HIGH TEMPERATURE; HYDROGEN SULFIDES; REMOVAL; IRON OXIDES; COBALT OXIDES; THORIUM OXIDES; CATALYSTS; DESULFURIZATION; HIGH TEMPERATURE; LIQUID PRODUCTS
- 05926 OILS FROM CATALYTIC HYDROGENATION OF CARBONACEOUS MATERIALS. Pier, M.; Simon, W.; Grassl, G. (to I. G. Farbenindustrie). German (FRG) Patent 698,006. 3 Oct 1940.
At 300 to 500°C and 20 to 500 atm using zinc acetate or zinc formate catalysts. COAL; PEAT; CARBONACEOUS MATERIALS; CATALYSTS; COAL PASTES; ZINC COMPOUNDS; FORMATES; ACETATES; HYDROGENATION; MEDIUM PRESSURE; HIGH PRESSURE; HIGH TEMPERATURE; HYDROCARBONS; PRODUCTION
- 05927 CONVERSION OF CARBON MONOXIDE AND HYDROGEN INTO HYDROCARBONS. (to N.-V. Internationale Koolwaterstoffen Synthese Maatschappij). British Patent 528,617. 1 Nov 1940.
Using narrow cooled tubes containing catalyst of Co and Th oxide on kieselguhr. TUBES; COOLING; CATALYSTS; COBALT; THORIUM OXIDES; KIESELGUHR; CARBON MONOXIDE; REDUCTION; HYDROGENATION
- 05928 HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Michael, W.; Jaekch, W. (to Wm. E. Currie). US Patent 2,220,261. 5 Nov 1940.
Using catalyst of sintered Fe surrounded by hydrocarbon oil at 330°C and <40 atm. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; HYDROGENATION; CATALYSTS; IRON; HIGH TEMPERATURE; REDUCTION
- 05929 SYNTHETIC HYDROCARBONS FROM SYNTHETIC GAS MIXTURE OF CARBON MONOXIDE AND HYDROGEN. (to International Hydrogenation Patent Co.). British Patent 528,826. 7 Nov 1940.
At >200°C using catalysts of Co--Th--kieselguhr, Ni--Mn, Al₂O₃--kieselguhr, or Co--Th--Cu--kieselguhr. CARBON MONOXIDE; HYDROGENATION; CATALYSTS; COBALT; HIGH TEMPERATURE; COBALT ALLOYS; THORIUM ALLOYS; DIATOMACEOUS EARTH; NICKEL ALLOYS; MANGANESE ALLOYS; ALUMINIUM OXIDES; COPPER ALLOYS; HYDROCARBONS; PRODUCTION; REDUCTION
- 05930 LIQUID PRODUCTS FROM COAL, ETC. Pier, M.; Urban, W.; Donath, E. (to Standard-I.G. Co.). US Patent 2,221,952. 19 Nov 1940.
Treating at >300°C in presence of halogens or halogen hydrides and sulfates or sulfites of alkali metals, also catalysts of Zn, Cd, Al, Si, Ti, Ge, Sn, Pb, V, Cr, W, Mo, U, Mn, Re, Fe, Ni, Co, or Cu or their oxides, sulfides, halides, or acid salts. COAL LIQUEFACTION; COAL; COAL TAR; MINERAL OILS; HIGH TEMPERATURE; DISTILLATES; HALOGENS; HALOGEN COMPOUNDS; HYDRIDES; SULFATES; SULFITES; CATALYSTS; ZINC; CADMIUM; ALUMINIUM; SILICON; TITANIUM; GERMANIUM; TIN; LEAD; VANADIUM; CHROMIUM; TUNGSTEN; MOLYBDENUM; URANIUM; MANGANESE; RHENIUM; IRON; NICKEL; COBALT; COPPER; OXIDES; SULFIDES; HALIDES; LABORATORY EQUIPMENT
- 05931 CATALYST FOR THE PRODUCTION OF GASOLINE. Kita, G. British Patent 529,390. 20 Nov 1940.
Carbonates and (or) hydroxides of Fe and Cu precipitated on diatomaceous earth with addition of alkali, boric acid, or its salts. Reaction of CO and H₂ at 225°C. IRON CARBONATES; COPPER CARBONATES; IRON HYDROXIDES; COPPER HYDROXIDES; DIATOMACEOUS EARTH; PRECIPITATION; CATALYSTS; CHEMICAL PREPARATION; CARBON MONOXIDE; REDUCTION; HYDROGENATION; GASOLINE; SYNTHETIC FUELS; PRODUCTION; HIGH TEMPERATURE; ALKALI METALS; BORIC ACID; ADDITIVES
- 05932 REFINING BENZINES OBTAINED FROM BROWN COAL. (to Kohlenveredlung und Schwelwerke). German (FRG) Patent 700,373. 21 Nov 1940.
Removal of unpleasant odor. BENZINE; COAL; BROWN COAL; HIGH TEMPERATURE; MEDIUM PRESSURE; HYDROCHLORIC ACID; SULFUR DIOXIDE; SODIUM HYDROXIDES; SULFURIC ACID; REFINING; MATRIX MATERIALS; CLAYS; COKE
- 05933 DIESEL OIL AND FUEL. Uhde, F.; Pffirmann, T.W. German (FRG) Patent 700,774. 28 Nov 1940.
Hydrogenation at >380°C and elevated pressure in presence of non-paraffinic or olefinic hydrocarbons. COAL; WOOD; PEAT; HYDROGENATION; HIGH TEMPERATURE; HYDROCARBONS; DIESEL FUELS
- 05934 SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Herbert, W. (to American Lurgi Corp.). US Patent 2,224,048. 3 Dec 1940.
At <300°C using suitable catalysts. CARBON MONOXIDE; REDUCTION; HYDROGENATION; CATALYSTS; BENZINE; SYNTHETIC FUELS; PRODUCTION; COBALT; THORIUM OXIDES; KIESELGUHR; HYDROCARBONS
- 05935 CATALYTIC CONVERSION OF CARBON MONOXIDE INTO HIGHER HYDROCARBONS. Roelen, O.; Feisst, W. (to Ruhrchemie). German (FRG) Patent 701,846. 24 Dec 1940.
Removal of nonvolatile product deposited on catalyst during hydrogenation of CO. CARBON MONOXIDE; REDUCTION; HYDROGENATION; RESIDUES; HYDROGEN; REMOVAL; CATALYSTS
- 05936 STUDY ON THE SYNTHESIS OF LIQUID FUELS FROM CARBON MONOXIDE AND HYDROGEN. Hsiung, S.Y.; Kung, K.M. J. Chin. Chem. Soc. (Taiwan); 8: 112-22 (1941).
Using Ni and CO catalysts on kieselguhr.

- CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; LIQUID PRODUCTS; CATALYSTS; NICKEL; KIESELGUHR; SYNTHETIC FUELS; PRODUCTION
- Production of gasoline and gases. COAL; BROWN COAL; SYNTHETIC FUELS; DISTILLATION; COAL TAR; GASOLINE; PRODUCTION
- 05937 NEW METHODS OF REFINING BROWN-COAL LOW-TEMPERATURE TAR. Heinze, R. Braunkohle; 40: 25-32, 40-4, 53-5(1941).
Review of German work. COAL TAR; SOLVENT EXTRACTION; HYDROGENATION; MINERAL OILS; ALKANES; PHENOLS; SULFUR DIOXIDE; GERMAN WORK; COAL LIQUEFACTION; REVIEWS
- 05938 DIRECT PRODUCTION OF STABILIZED CRACKED BENZINES FROM COAL, WOOD, LIGNITE, AND SIMILAR MATERIALS. Spirk, L. Chem. Listy; 35: 253-5(1941).
COAL; WOOD; LIGNITE; HYDROGENATION; COAL TAR; COAL TAR OILS; CRACKING; PRODUCTION; BENZINE
- 05939 SYNTHESIS OF HYDROCARBONS BY THE PROCESS OF FISCHER AND TROPSCH. Werner, G. Z. Kompr. Fluss. Gase; 36: 77-80, 89-94(1941).
Chemical principles and techniques. HYDROCARBONS; PRODUCTION; FISCHER-TROPSCH SYNTHESIS; CARBON MONOXIDE; REDUCTION; HYDROGEN
- 05940 GASOLINE FROM COAL-DISTILLATION PRODUCTS. V. LOW-TEMPERATURE DISTILLATION OF COAL TREATED WITH ADSORBENTS (PRELIMINARY). Takizawa, M.; Yosinaga, G. Bull. Inst. Phys. Chem. Research (Tokyo); 20: 187-99(1941).
COAL; DISTILLATION; SYNTHETIC FUELS; PRODUCTION; GASOLINE; ACTIVATED CARBON; ADSORBENTS
- 05941 HYDROGENATION OF COAL -- INSURANCE FOR THE OIL AND AUTOMOTIVE INDUSTRIES. Nelson, W.L. Oil Gas J.; 39: No. 52, 55, 56, 64(1941).
COAL; HYDROGENATION; REVIEWS
- 05942 NATURE OF OILS OBTAINED FROM THE HYDROGENATION OF A FEW TYPICAL BITUMINOUS COALS. LeClaire, C.D. J. Amer. Chem. Soc.; 63: 343-51(1941).
At 350°C using Atkin's catalyst. COAL; HYDROGENATION; LIQUID PRODUCTS; CHEMICAL PROPERTIES
- 05943 GASOLINE SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN AT ATMOSPHERIC PRESSURE. LVI. ANALYSIS OF THE SYNTHETIC OIL BY PRECISION DISTILLATION. Kodama, S.; Tarama, K.; Oshima, T.; Fujita, K. J. Soc. Chem. Ind., Japan; 44: 270-2(1941). (In German).
Fe catalyst containing Cu, Mn, kieselguhr, H₃BO₃, and K₂CO₃; Co catalyst containing Cu, Th, U, and kieselguhr. GASOLINE; PRODUCTION; CARBON MONOXIDE; REDUCTION; IRON; CATALYSTS; COPPER; MANGANESE; KIESELGUHR; BORIC ACID; POTASSIUM CARBONATES; THORIUM; URANIUM
- 05944 FUELS AND FUEL REPLACEMENTS. Lecoq, E.J. Carburants nat.; 2: 214-20(1941).
Low-temperature distillation of coals with high volatile matter to provide motor fuels. COAL; DISTILLATION; VOLATILITY; PRODUCTION; LIQUID PRODUCTS; SYNTHETIC FUELS
- 05945 CATALYTIC REACTION OF CARBON MONOXIDE AND HYDROGEN UNDER PRESSURE. II. INFLUENCE OF HIGH PRESSURE ON THE IRON CATALYST EMPLOYED IN THE SYNTHESIS OF BENZINE. Tahara, H.; Sawade, Y.; Komiyama, D. Sci. Pap. Inst. Phys. Chem. Res. (Jap.); 38: 184-95(1941). (In German).
MEDIUM PRESSURE; IRON; CATALYSTS; COPPER; MANGANESE; KIESELGUHR; BORIC ACID; POTASSIUM CARBONATES; CATALYSIS; CARBON MONOXIDE; REDUCTION; BENZINE; PRESSURE DEPENDENCE; PRODUCTION; HYDROGENATION
- 05946 LOW-TEMPERATURE DISTILLATION OF HIGH-GRADE BROWN COAL AND ITS CONTRIBUTION TO AUTOMOBILE FUELS. Roma, F. Metano; 4: No. 2, 5-11(1941).
- 05947 CATALYSTS FOR BENZINE SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN WHICH DO NOT REQUIRE HIGH-TEMPERATURE REDUCTION. Rubinshtein, A.M.; Pribytkova, N.A.; Kasanskii, B.A.; Zelinskii, N.D. Bull. Acad. Sci. URSS, Classe Sci. Chim.; 41-8(1941).
Preparation of Co-Cu-Mn catalyst. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; BENZINE; CATALYSTS; COBALT COMPLEXES; COPPER COMPLEXES; MANGANESE COMPLEXES; KIESELGUHR
- 05948 BENZINE SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN UNDER ORDINARY PRESSURE. LV. INFLUENCE OF NITROGEN, METHANE, OXYGEN AND AMMONIA IN THE INITIAL GAS UPON THE IRON CATALYST. Murata, Y. Sci. Pap. Inst. Phys. Chem. Res. (Jap.); 33: 218-29(1941). (In German).
CARBON MONOXIDE; BENZINE; PRODUCTION; REDUCTION; HYDROGENATION; NITROGEN; METHANE; OXYGEN; AMMONIA; IRON; COPPER; KIESELGUHR; POTASSIUM HYDROXIDES; LIQUID PRODUCTS; CATALYSTS
- 05949 LOW-TEMPERATURE DISTILLATION OF SOLID FUELS, ITS SIGNIFICANCE FOR PRODUCTION OF COKE AND LIQUID FUELS. Delaroziere, F. J. Usines Gaz; 65: 181-3(1941).
REVIEWS; LIQUID PRODUCTS; COKE; DISTILLATION; CARBONACEOUS MATERIALS
- 05950 ANALYSIS OF SYNTHETIC GASOLINE OBTAINED BY FISCHER PROCESS. Ohtsuka, H.; Tomita, N. J. Soc. Chem. Ind. Japan; 44: 746-7(1941).
FISCHER-TROPSCH SYNTHESIS; GASOLINE; PRODUCTION; CHEMICAL ANALYSIS
- 05951 PHYSICO-CHEMICAL INVESTIGATIONS ON GASOLINE SYNTHESIS. IV. VELOCITY OF ADSORBING HYDROGEN BY COBALT. Kokama, D.; Matsumura, S.; Tarama, K. J. Soc. Chem. Ind. Japan; 44: 823-5(1941).
GASOLINE; PRODUCTION; HYDROGEN; ADSORPTION; COBALT
- 05952 THERMAL REACTION AND HYDROGENATION OF COAL. VII. EFFECTS OF LIQUID MEDIA. Morikawa, K.; Sato, H.; Abe, R. J. Soc. Chem. Ind., Japan; 44: 1-3(1941).
ZnCl₂ or Cu₂Cl₂ catalyzed reaction. OILS; COAL; HYDROGENATION; BERGIUS PROCESS; ZINC CHLORIDES; CATALYSTS; PHENOLS; SHALE OIL; SLURRIES; HEATING; TIME DEPENDENCE
- 05953 PRODUCTION OF FUEL OIL FROM BROWN COALS YIELDING TARS RICH IN CREOSOTE. Jappelt, A.; Steinmann, A. Braunkohle; No. 54, 35-8(1941).
SYNTHETIC FUELS; COAL TAR; BROWN COAL; PRODUCTION
- 05954 HYDROGENATION AND LIQUEFACTION OF COAL. I. REVIEW OF LITERATURE, DESCRIPTION OF EXPERIMENTAL PLANT, AND LIQUID-PHASE ASSAYS OF SOME TYPICAL BITUMINOUS, SUBBITUMINOUS AND LIGNITIC COALS. Storch, H.H.; Hirst, L.L.; Fisher, C.H.; Sprunk, G.C. U. S. Bur. Mines, Tech. Paper; 622: 110p.(1941).
COAL; HYDROGENATION; COAL LIQUEFACTION; REVIEWS; HIGH PRESSURE; HIGH TEMPERATURE; PRODUCTION; SYNTHETIC FUELS; GASOLINE
- 05955 PRELIMINARY TREATMENT OF SOLID FUELS FOR HYDROGENATION. Crussard, M. Carburants nat.; 2: 561-78(1941).
Re-bituminizing coal; production of light and heavy motor fuels, C₆H₆, phenol and hydrocarbons. COAL; HYDROGENATION; PRODUCTION; LIQUID PRODUCTS; BENZENE; PHENOL; HYDROCARBONS; SYNTHETIC FUELS
- 05956 HYDROGENATION OF EXTRACTED OILS FROM

- LOW-TEMPERATURE TAR. Kurokawa, M.; Asaoka, N. J. Soc. Chem. Ind. Japan; 44: 737-40(1941). 450°C; 100 atm pressure. COAL TAR; OILS; HYDROGENATION; SOLVENT EXTRACTION; MOLYBDENUM OXIDES; HIGH PRESSURE; SULFUR; NICKEL OXIDES; GASOLINE; PRODUCTION
- 05957 COMPOSITION OF SYNTHETIC BENZINE FROM CARBON MONOXIDE AND HYDROGEN (KOGASIN) AND SUITABILITY OF ITS MONOLEFINS FOR PRODUCTION OF LUBRICATING OILS. Hilberath, F. Feuerungstech.; 29: 191(1941). Benzine fractionation using Hg acetate. CARBON MONOXIDE; HYDROGEN; BENZINE; FISCHER-TROPSCH SYNTHESIS; MERCURY COMPOUNDS; ACETATES; DISTILLATES; CHEMICAL COMPOSITION; REDUCTION
- 05958 GASOLINE FROM COAL-DISTILLATION PRODUCTS. Takizawa, M. Bull. Inst. Phys. Chem. Research (Tokyo); 20: 920-34(1941). Low temperature carbonization of mixture of coal with acid clay, Kanuma earth, or active C. GASOLINE; PRODUCTION; COAL; DISTILLATION; CLAYS; ACTIVATED CARBON; CARBONIZATION
- 05959 HYDROGENATION OF HIGH-VOLATILE BITUMINOUS COALS. SUMMARY OF ASSAYS OF BITUMINOUS COALS, SUBBITUMINOUS COALS, AND LIGNITES. Hirst, L.L.; Boyer, R.L.; Eisner, A.; Pinkel, I.I.; Storch, H.H. Ind. Eng. Chem.; 33: 1068-72(1941). COAL; HYDROGENATION; BITUMINOUS COAL; LIGNITE; OILS; ORGANIC ACIDS; BOILING POINTS; COAL RANK; COAL LIQUEFACTION
- 05960 PHYSICOCHEMICAL INVESTIGATIONS ON GASOLINE SYNTHESIS. V. VELOCITY OF ADSORPTION OF HYDROGEN BY A CATALYST OF COBALT AND INFUSORIAL EARTH. Kodama, S.; Matsumura, S.; Ando, T. J. Soc. Chem. Ind., Japan; 44: 920-4(1941). GASOLINE; PRODUCTION; CATALYSTS; COBALT; INFUSORIAL EARTH; ADSORPTION; HYDROGEN; ADSORPTIVE PROPERTIES
- 05961 PHYSICOCHEMICAL INVESTIGATIONS ON GASOLINE SYNTHESIS. VI. VELOCITY OF ADSORPTION OF HYDROGEN BY COBALT-THORIA-INFUSORIAL EARTH CATALYST. Kodama, S.; Matsumura, S.; Ando, T. J. Soc. Chem. Ind., Japan; 44: 920-4(1941). GASOLINE; PRODUCTION; CATALYSTS; COBALT; THORIUM OXIDES; INFUSORIAL EARTH; HYDROGEN; ADSORPTION; ADSORPTIVE PROPERTIES
- 05962 GENERATION OF SYNTHESIS GAS WITH RECOVERY OF AROMATIC HYDROCARBONS. (to Didier-Werke). British Patent 531,288. 1 Jan 1941. COAL; CARBONIZATION; SYNTHESIS GAS; PRODUCTION; AROMATICS; HIGH TEMPERATURE; CARBON MONOXIDE; HYDROGEN
- 05963 SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Herbert, W. (to American Lurgi Corp.). US Patent 2,271,259. 27 Jan 1941. Using catalysts of Co, Th oxide, and kieselguhr. HYDROCARBONS; CARBON MONOXIDE; REDUCTION; HYDROGENATION; PRODUCTION; CATALYSTS; BENZINE; COBALT OXIDES; THORIUM OXIDES; KIESELGUHR
- 05964 OIL FROM CARBON MONOXIDE AND HYDROGEN BY MEANS OF AN IMPROVED CATALYST. Kita, G. French Patent 851,415. 8 Feb 1941. Catalysts of Fe and Cu hydroxides precipitated in kieselguhr with addition of small amount of H₂BO₃; possible addition of Mn or Al. CARBON MONOXIDE; REDUCTION; HYDROGEN; CATALYSTS; IRON HYDROXIDES; COPPER HYDROXIDES; KIESELGUHR; OILS
- 05965 REGENERATION OF CATALYSTS FOR THE HYDROGENATION OF CARBON MONOXIDE. (to International Hydrocarbon Patents Co.). British Patent 533,459. 13 Feb 1941. Catalyst hydrogenated at 400 to 450°C. CARBON MONOXIDE; HYDROGENATION; CATALYSTS; REGENERATION; HIGH TEMPERATURE; REDUCTION; COAL LIQUEFACTION
- 05966 HYDROGENATION AND DEHYDROGENATION CATALYSTS. (to Standard-I.G. Co.). German(FRG) Patent 703,736. 13 Feb 1941. Sulfides of 5, 6, and 7 periodic groups, particularly Mo. CATALYSTS; SULFIDES; MOLYBDENUM SULFIDES; CHEMICAL PREPARATION; HYDROGENATION; DEHYDROGENATION; SULFUR COMPOUNDS; AQUEOUS SOLUTIONS
- 05967 REGENERATION OF METALLIC CATALYSTS USED IN PREPARING HYDROCARBONS FROM HYDROGEN AND CARBON MONOXIDE. (to N.-V. Internationale Koolwaterstoffen Synthese Maatschappij). French Patent 861,745. 15 Feb 1941. Regeneration of Mn, U, Ce, Mg, Ni, or Fe deposited on kieselguhr. CATALYSTS; CARBON MONOXIDE; REDUCTION; MANGANESE; URANIUM; CERIUM; MAGNESIUM; NICKEL; IRON; KIESELGUHR; REGENERATION
- 05968 SUPPORT FOR CATALYST FOR HYDROGENATION OF CARBON MONOXIDE. (to N.-V. Internationale Koolwaterstoffen Synthese Maatschappij). French Patent 862,105. 27 Feb 1941. Use of Co or Th catalysts on diatomaceous earth supports. CARBON MONOXIDE; REDUCTION; CATALYSTS; DIATOMACEOUS EARTH; COBALT; THORIUM
- 05969 CATALYTIC HYDROGENATION OF CARBON MONOXIDE. (to N.-V. Internationale Koolwaterstoffen Synthese Maatschappij). French Patent 862,171. 28 Feb 1941. Catalyst of Fe, Ni, Co, and Th on silica gel. CARBON MONOXIDE; REDUCTION; CATALYSTS; IRON; NICKEL; COBALT; THORIUM; LIQUID PRODUCTS; SILICA GEL
- 05970 HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Meisenheimer, K.; Kotschmar, A.; Scheuermann, A. (to Standard Catalytic Co.). US Patent 2,274,639. 3 Mar 1941. Preparation of Co-containing catalysts. HYDROCARBONS; COBALT COMPOUNDS; CATALYSTS; CHEMICAL PREPARATION; REDUCTION; HYDROGENATION; COBALT NITRATES; POTASSIUM CARBONATES; DIATOMACEOUS EARTH; CARBON MONOXIDE
- 05971 HYDROCARBONS. (to International Hydrocarbon Synthesis Co.). British Patent 534,367. 5 Mar 1941. Production of hydrocarbons by hydrogenation of CO using catalysts containing Co and Ag. CARBON MONOXIDE; HYDROGENATION; HYDROCARBONS; PRODUCTION; COBALT COMPOUNDS; SILVER COMPOUNDS; CATALYSTS; CHEMICAL PREPARATION; REDUCTION
- 05972 HYDROCARBONS. (to International Hydrocarbon Synthesis Co.). British Patent 534,357. 5 Mar 1941. Preparation of Fe- and Ni-containing catalysts used in production of solid and liquid hydrocarbons by hydrogenation of CO. CARBON MONOXIDE; HYDROGENATION; CATALYSTS; NICKEL COMPOUNDS; IRON COMPOUNDS; LIQUID PRODUCTS; SOLIDS; CHEMICAL PREPARATION; REDUCTION
- 05973 CATALYTIC HYDROGENATION OF CARBON MONOXIDE. (to N.-V. Internationale Koolwaterstoffen Synthese Maatschappij). French Patent 862,536. 8 Mar 1941. Co, Th, and diatomaceous earth catalysts; 150-350°C; use of halides, borates, and phosphates of Na, Li, K, or Cs, Al₂O₃, SiO₂, compounds of Cu, Ti, Mn, W, Mo, Cr, Th, etc.. CARBON MONOXIDE; REDUCTION; CATALYSTS; LIQUID PRODUCTS; HIGH TEMPERATURE; EQUIPMENT; HALIDES; BORATES; PHOSPHATES; IRON; NICKEL
- 05974 CATALYST FOR THE HYDROGENATION OF

- CARBON MONOXIDE. (to N.-V. Internationale Koolwaterstoffen Synthese Maatschappij). French Patent 863,311. 29 Mar 1941.
Co catalyst; addition of oxides of Th, Mg, or Al as activators. CATALYSTS; CARBON MONOXIDE; REDUCTION; COBALT; CHEMICAL PREPARATION
- 05975 CATALYSTS SUITABLE FOR USE IN HYDROGENATING CARBON MONOXIDE, "HYDROFINING" VARIOUS OILS, "DOCTOR SWEETENING" LIGHT PETROLEUM DISTILLATES, ETC. Gwynn, M.H. US Patent 2,319,453. 18 May 1941.
Preparation by treatment of a metal such as Co or Ni (or a readily reducible ferromagnetic alloy) with an aqueous solution of a chlorite (suitably after roasting and treatment with steam). CARBON MONOXIDE; REDUCTION; HYDROGEN; CATALYSTS; COBALT; NICKEL; FERROMAGNETIC MATERIALS; ALLOYS; CHLORIDES; CHEMICAL PREPARATION
- 05976 HYDROCARBONS CONTAINING MORE THAN ONE CARBON ATOM. (to International Hydrocarbon Synthesis Co.). British Patent 536,767. 27 May 1941.
Preparation of diatomite carrier for catalyst for hydrogenation of carbon monoxide. CARBON MONOXIDE; HYDROGENATION; REDUCTION; CATALYSTS; MATRIX MATERIALS; DIATOMACEOUS EARTH; CHEMICAL PREPARATION
- 05977 HYDROCARBONS. (to International Hydrocarbon Synthesis Co.). British Patent 536,912. 30 May 1941.
Preparation of Co catalyst for hydrogenation of CO. CARBON MONOXIDE; HYDROGENATION; REDUCTION; CATALYSTS; COBALT COMPOUNDS; CHEMICAL PREPARATION; SALTS
- 05978 HYDROCARBONS AND THEIR OXYGEN-CONTAINING DERIVATIVES FROM CARBON MONOXIDE AND HYDROGEN. (to I. G. Farbenindustrie). German (FRG) Patent 708,512. 3 Jun 1941.
Using fused Fe₃O₄ as catalyst with Ti and/or Si or their compounds as activators. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; CATALYSTS; IRON OXIDES; PROMOTERS; TITANIUM COMPOUNDS; SILICON COMPOUNDS
- 05979 CATALYTIC SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Mann, A.; Lorenz, W. German (FRG) Patent 710,128. 24 Jul 1941.
Using metals of the Fe group, especially Co, as catalysts. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; CATALYSTS; IRON; COBALT
- 05980 CONVERSION OF CARBON MONOXIDE WITH HYDROGEN INTO HYDROCARBONS. (to International Hydrocarbon Synthesis Co.). British Patent 538,225. 25 Jul 1941.
Preparation of Fe catalyst. CARBON MONOXIDE; HYDROGENATION; REDUCTION; PRODUCTION; HYDROCARBONS; CATALYSTS; IRON; IRON OXIDES; HIGH TEMPERATURE; REGENERATION
- 05981 LIQUID HYDROCARBONS FROM GASEOUS HYDROCARBONS SUCH AS OLEFINS AND SOLID CARBONACEOUS MATERIALS. Ocon, C.L.; Ocon, E.A. (to Ernest A. Ocon). US Patent 2,325,916. 3 Aug 1941.
LIQUID PRODUCTS; CARBONACEOUS MATERIALS; HIGH TEMPERATURE; GASOLINE; PRODUCTION
- 05982 CATALYSTS SUITABLE FOR USE IN PRODUCING HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Klemm, R.; Linckh, E. (to Standard Catalytic Co.). US Patent 2,292,570. 11 Aug 1941.
Preparation by treating a metal of the Fe group (Fe, Co, or Al) or its oxide with steam and H (5-50% H) at 800-1200° and reducing the resulting oxidic material with H at 650°. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; CATALYSTS; CHEMICAL PREPARATION;
- IRON OXIDES; COBALT OXIDES; ALUMINIUM OXIDES; COAL LIQUEFACTION
- 05983 SYNTHESIZING HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Braune, W.; Schaefer, H. (to Braunkohle-Benzin). German (FRG) Patent 710,963. 21 Aug 1941.
Using cobalt catalysts free of nickel. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; CATALYSTS; COBALT; NICKEL; AMMONIA
- 05984 TEMPERATURE CONTROL IN EFFECTING EXOTHERMIC CATALYTIC REACTIONS SUCH AS HYDROCARBON PRODUCTION FROM HYDROGEN AND CARBON MONOXIDE. Myddleton, W.W. (to M. W. Kellogg Co.). US Patent 2,255,126. 9 Sep 1941.
CARBON MONOXIDE; HYDROGENATION; TEMPERATURE DEPENDENCE; CATALYSTS; GAS FLOW; REDUCTION; REACTION HEAT
- 05985 HYDROCARBONS BY CONVERSION OF CARBON MONOXIDE WITH HYDROGEN IN THE PRESENCE OF CATALYSTS. (to International Hydrocarbon Synthesis Company). Netherlands Patent 50,858. 15 Sep 1941.
Treatment of siliceous carrier for catalyst. CARBON MONOXIDE; REDUCTION; HYDROGENATION; CATALYSTS; KIESELGUHR; HIGH TEMPERATURE; ASBESTOS; CHEMICAL PREPARATION; MATRIX MATERIALS; HEATING; ALKALI METALS
- 05986 TEMPERATURE CONTROL IN THE CATALYTIC HYDROGENATION OF CARBON OXIDES. Barr, F.T. (to Standard Oil Development Co.). US Patent 2,256,969. 23 Sep 1941.
CARBON MONOXIDE; CARBON DIOXIDE; HYDROGENATION; REACTION HEAT; REMOVAL; CATALYSTS; REDUCTION
- 05987 HYDROCARBONS FROM GASES CONTAINING CARBON MONOXIDE AND HYDROGEN. Fischer, F.; Pichler, H. (to Hydrocarbon Synthesis Corp.). US Patent 2,257,457. 30 Sep 1941.
At 2 to 100 atm and 220 to 320°C over Fe catalysts. CARBON MONOXIDE; HYDROGENATION; CATALYSTS; IRON; HIGH TEMPERATURE; MEDIUM PRESSURE; HYDROCARBONS; PRODUCTION; SOLIDS; LIQUIDS; REDUCTION
- 05988 HYDROCARBONS FROM CARBON MONOXIDE AND STEAM. Dreyfus, H. US Patent 2,257,293. 30 Sep 1941.
Ni-catalyzed reaction at 400 to 500°C, then at 150 to 250°C. CARBON MONOXIDE; HYDROGENATION; STEAM; CATALYSTS; NICKEL; HIGH TEMPERATURE; REDUCTION; CARBON DIOXIDE; OXIDATION; HYDROCARBONS; PRODUCTION
- 05989 MOTOR FUEL FROM REACTION PRODUCTS OF CARBON MONOXIDE AND HYDROGEN. Atwell, H.V. (to Process Management Co.). US Patent 2,258,839. 14 Oct 1941.
CARBON MONOXIDE; HYDROGENATION; SYNTHETIC FUELS; PRODUCTION; LIQUID PRODUCTS; GASEOUS PRODUCTS; HIGH TEMPERATURE; HIGH PRESSURE; REDUCTION
- 05990 MANUFACTURE OF HIGH-ANTI-KNOCK MOTOR-FUEL HYDROCARBONS BY CATALYTIC CONVERSION OF CO AND H. Goldsby, A.R. (to Texas Co.). US Patent 2,205. 20 Oct 1941.
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- 05991 LIQUID HYDROCARBONS FROM COAL. (to I. G. Farbenind.). German (FRG) Patent 715,111. 20 Nov 1941.
Hydrogenation of coal pastes under pressure after addition to a catalytically active substance dissolved in a ketone or aldehyde. LIQUID PRODUCTS; COAL; COAL PASTES; CATALYSTS; HYDROGENATION; PRODUCTION; HYDROCARBONS
- 05992 MOTOR FUEL FROM CARBON MONOXIDE AND HYDROGEN. Asbury, W.C. (to Standard

- Catalytic Co.). US Patent 2,264,427. 2 Dec 1941.
CO and H reacted at 475 to 650°C at 50 atm using Fe catalyst; portion of product treated at 700 to 950°C using siliceous catalyst. CARBON MONOXIDE; HYDROGENATION; REDUCTION; HIGH TEMPERATURE; MEDIUM PRESSURE; IRON COMPOUNDS; CATALYSTS; SILICATES; SYNTHETIC FUELS; PRODUCTION
- 05993 DISCUSSION OF PROPOSED METHODS FOR THE INCREASE IN YIELDS OF BENZENE DURING HIGH-TEMPERATURE DISTILLATION OF COAL IN HORIZONTAL CHAMBER OVENS. Paus, H. *Gel u. Kohle*; 38: 1087-1102, 1119-30, 1153-64(1942).
COAL; DISTILLATION; PRODUCTION; BENZENE; TIME DEPENDENCE; TEMPERATURE DEPENDENCE
- 05994 CARBIDE FORMATION AS AN INTERMEDIATE STAGE IN THE CATALYTIC SYNTHESIS OF HYDROCARBONS FROM WATER GAS. Eidus, Y.T.; Zelinskii, N.D. *Bull. Acad. Sci. URSS, Classe Sci. Chim.*; 190-4(1942).
Using a Co—ThO₂—kieselguhr catalyst. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; GASOLINE; CATALYSTS; COBALT COMPLEXES; THORIUM OXIDES; KIESELGUHR; COBALT CARBIDES; RADICALS
- 05995 PHYSICO-CHEMICAL INVESTIGATIONS ON CATALYTIC MECHANISM. VII. DURABILITY AND PRETREATMENT OF THE CATALYST USED FOR THE FISCHER-TROPSCH SYNTHESIS OF HYDROCARBONS. Hamai, S. *J. Chem. Soc. Japan*; 63: 1606-15(1942).
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- 05996 BRITISH COAL HYDROGENATION. Appleby, H.C. *Petroleum*; 5: 155-7(1942).
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- 05997 SYNTHETIC LIQUID FUELS. Bosworth, R.C.L. *Aust. J. Sci.*; 5: 28-33(1942).
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- 05998 SYNTHESIS OF GASOLINE FROM CARBON MONOXIDE AND HYDROGEN. LXIII. IRON CATALYSTS AND THE COMPOSITION OF GAS USED IN THE SYNTHESIS. Murata, Y.; Yoshioka, Y.; Oji, G.; Saito, S. *J. Soc. Chem. Ind., Japan*; 45: (1942).
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- 05999 CATALYTIC DECOMPOSITION OF COAL LIGHT OIL. Kobayashi, I. *Bull. Inst. Phys. Chem. Research (Tokyo)*; 21: 311-20(1942).
Liquefaction of Kawakami coal. COAL LIQUEFACTION; LIQUID PRODUCTS; OILS; DECOMPOSITION; CHARCOAL; CATALYSTS
- 06000 PHYSICO-CHEMICAL INVESTIGATION ON CATALYTIC MECHANISM. III. DESCRIPTION OF VARIOUS GASES FROM THE CATALYST USED IN THE FISCHER-TROPSCH SYNTHESIS. Hamai, S.; Hayashi, S.; Shimamura, K. *J. Soc. Chem. Ind., Japan*; 45: 515-18(1942).
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- CATALYSTS; GASOLINE; PRODUCTION
- 06002 NEUTRALIZATION OF FATTY ACIDS FORMED IN SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Ohme, W. *Gel u. Kohle*; 38: 465-7(1942).
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- 06004 FORMATION OF BENZENE HYDROCARBONS DURING THE GASIFICATION [OF COAL]. van Ahlen, A. *Glueckauf*; 78: 633-9(1942).
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- 06005 HYDROCARBON SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN UNDER MEDIUM PRESSURE. III. EFFECT OF ADDING ALKALI AND CHANGES IN THE REACTION TEMPERATURE ON THE ACTIVITY OF FE—CU—MN—H₃BO₃ CATALYSTS. Kodama, S.; Tahara, H.; Fukushima, I.; Iwao, M.; Komazawa, S.; Kimura, K. *J. Soc. Chem. Ind., Japan*; 45: (1942).
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- 06007 WORK OF THE SCHOOL OF LOUVAIN ON SYNTHETIC MOTOR FUELS. Kimpflin, G. *Genie Civil*; 119: 279-81(1942).
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- 06009 REACTION OF CARBON MONOXIDE WITH COBALT CATALYSTS USED IN THE SYNTHESIS OF GASOLINE FROM WATER GAS. Eidus, Y.T.; Zelinskii, N.D. *Bull. Acad. Sci. URSS, Classe Sci. Chim.*; 45-54(1942).
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- 06010 SYNTHESIS OF GASOLINE FROM CARBON MONOXIDE AND HYDROGEN. LVII. EFFECT OF SOME

- ADDED SUBSTANCES ON IRON-COPPER CATALYSTS. Murata, Y.; Tatsuki, Y.; Yamada, H.; Sawada, Y. J. Soc. Chem. Ind., Japan; 45: 557-60(1942).
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- 06011 THERMAL REACTIONS AND HIGH-PRESSURE HYDROGENATION OF COAL. XIV. CORRELATION BETWEEN THE COAL RANK AND THE ACTIONS OF CATALYSTS AND VEHICLES. Sato, F.; Morikawa, K.; Morikawa, R.; Okamura, T.; Oda, K. J. Soc. Chem. Ind., Japan; 45: 892-903(1942).
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- 05012 THERMAL REACTIONS AND HIGH-PRESSURE HYDROGENATION OF COAL. XV. HYDROGENATION OF OXIDIZED ANTHRACITE. Sato, F.; Morikawa, K.; Morikawa, R.; Okamura, T.; Oda, K. J. Soc. Chem. Ind., Japan; 45: (1942).
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- 06013 THERMAL REACTIONS AND HIGH-PRESSURE HYDROGENATION OF COAL. XVI. BEHAVIOR OF OXYGEN IN COAL IN THE COURSE OF LIQUEFACTION. Sato, F.; Morikawa, K.; Morikawa, R.; Okamura, T.; Oda, K. J. Soc. Chem. Ind., Japan; 45: (1942).
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- 06014 HYDROCARBONS FROM CARBIDE. IV. NONCATALYTIC POLYMERIZATION UNDER ORDINARY PRESSURE--CARBON MONOXIDE-CARBIDE SYSTEM AND HYDROGEN CHLORIDE-CARBIDE SYSTEMS. Negishi, R.; Kamiike, O.; Kataoka, S. (S. Manchuria Ry. Co., Dairen). J. Soc. Chem. Ind., Japan; 45: 46(1942). (In English).
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- 06015 SYNTHESIS OF GASOLINE FROM CARBON MONOXIDE AND HYDROGEN. LVIII. MUTUAL INFLUENCE OF BORIC ACID AND ALKALI IN PROMOTING ACTIVITIES OF IRON-COPPER CATALYSTS. Murata, Y.; Sawada, Y.; Takezaki, Y. J. Soc. Chem. Ind., Japan; 45: 670-5(1942).
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- 06018 HYDROGENATION AND LIQUEFACTION OF COAL. II. EFFECT OF PETROGRAPHIC COMPOSITION AND RANK OF COAL. Fisher, C.H.; Sprunk, G.C.; Eisner, A.; O'Donnell, H.J.; Clarke, L.; Storch, H.H. U. S. Bur. Mines, Tech. Paper; 642: 162p.(1942).
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- 06019 SYNTHESIS OF GASOLINE FROM CARBON MONOXIDE AND HYDROGEN. LX. EFFECT OF COPPER ON IRON CATALYSTS. Murata, Y.; Yashiro, R.; Tashiro, E. J. Soc. Chem. Ind., Japan; 45: 1117-21(1942).
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- 06020 SYNTHESIS OF GASOLINE FROM CARBON MONOXIDE AND HYDROGEN. LXI. REACTION TEMPERATURE AND DURABILITY OF IRON CATALYSTS. Murata, Y.; Yoshioka, Y.; Oji, G.; Saito, S. J. Soc. Chem. Ind., Japan; 45: 1271-86(1942).
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- 06021 SYNTHESIS OF GASOLINE FROM CARBON MONOXIDE AND HYDROGEN. LXII. DURABILITY OF IRON CATALYST AND THE COMPOSITION OF GAS USED IN THE SYNTHESIS. Murata, Y.; Yoshioka, Y.; Oji, G.; Saito, S. J. Soc. Chem. Ind., Japan; 45: (1942).
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PRODUCTION; GASOLINE; QUANTITY RATIO; CATALYSTS;
LIFETIME; BORIC ACID
- 06022 HYDROCARBON SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN UNDER MEDIUM PRESSURE. II. CHARACTERISTICS OF HYDROCARBON SYNTHESIS UNDER MEDIUM PRESSURE WITH AN IRON CATALYST. DURABILITY OF THE CATALYST. Kodama, S.; Tahara, H.; Fukushima, I.; Iwao, M.; Komazawa, S.; Kimura, K. J. Soc. Chem. Ind., Japan; 45: 1263-71(1942).
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- 06024 CATALYTIC HYDROGENATION OF CARBON MONOXIDE. (to Koolwaterstoffen Synthese Maatschappij). French Patent 870,211. 5 Mar 1942.
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- 06025 HYDROGENATION OF COAL, PEAT, WOOD, AND SIMILAR SUBSTANCES. Riedel, W.; Polenske, L. German(FRG) Patent 719,133. 5 Mar 1942.
In a magnetic, preferably pulsating field at elevated temperature. COAL; HYDROGENATION; MAGNETIC FIELDS
- 06026 CONTACT OVENS FOR SYNTHESIZING HYDROCARBONS BY THE FISCHER AND TROPSCH PROCESS. Schappei, H. (to Mannesmannroehren-Werke). German(FRG) Patent 720,685. 9 Apr 1942.

- FISCHER-TROPSCH SYNTHESIS;HYDROCARBONS;
PRODUCTION;EQUIPMENT
- 06027 HYDROCARBONS FROM GASES CONTAINING MORE CARBON MONOXIDE THAN HYDROGEN. (to N. V. Internationale Koolwaterstoffen Synthese Maatschappij). Netherlands Patent 52,257. 15 Apr 1942.
At below 320° and 2 to 100 atm pressure using iron as a catalyst. CARBON MONOXIDE; REDUCTION;HYDROGEN;HIGH TEMPERATURE;MEDIUM PRESSURE;CATALYSTS;IRON;PRODUCTION;HYDROCARBONS
- 06028 MIXTURES OF HYDROCARBONS, ETC. (to Metalgesellschaft). Belgian Patent 445,023. 30 Apr 1942.
Produced by hydrogenation of CO using Fe oxides or oxidized Fe compounds as catalysts. CARBON MONOXIDE;REDUCTION;HYDROGEN;PRODUCTION;HYDROCARBONS;CATALYSTS;IRON OXIDES;OXIDATION;IRON COMPOUNDS
- 06029 SYNTHESIS OF HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN. Duftschmid, F.; Linckh, E.; Winkler, F. (to Standard Catalytic Co.). US Patent 2,318,602. 11 May 1942.
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Halogen compounds containing solid metalloids together with metals of groups 5 and 6 of the periodic table or oxides, sulfides, or phosphates of the other metals are used as catalysts. COAL;COAL TAR;MINERAL OILS; HYDROGENATION;CATALYSTS;HALOGENS;METALS;OXIDES; SULFIDES;PHOSPHATES
- 06031 SYNTHESIS OF HYDROCARBONS. Williams, K.; Pring, P.; Andrew, T. British Patent 545,695. 9 Jun 1942.
By passing a mixture of H and CO through an alternating electric field in the presence of a hydrogenating catalyst. PRODUCTION;HYDROCARBONS; CARBON MONOXIDE;HYDROGEN;REDUCTION;ELECTRIC FIELDS;ELECTRIC POTENTIAL
- 06032 CATALYTIC HYDROGENATION OF SOLID FUEL. Kroenig, W. (to I. G. Farbenindustrie). German(FRG) Patent 725,602. 13 Aug 1942.
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- 06033 HYDROCARBON SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN. (to N. V. Internationale Koolwaterstoffen Synthese Maatschappij). Netherlands Patent 53,095. 15 Sep 1942.
Using a Co catalyst containing 18% ThO₂. CARBON MONOXIDE;REDUCTION;HYDROGEN;MEDIUM PRESSURE;MEDIUM TEMPERATURE;CATALYSTS;COBALT; THORIUM OXIDES;PRODUCTION;HYDROCARBONS
- 06034 REGENERATING CATALYZERS FROM THE CONVERSION OF CARBON MONOXIDE AND HYDROGEN TO HYDROCARBONS. (to N. V. Internationale Koolwaterstoffen Synthese Maatschappij). Netherlands Patent 53,298. 15 Oct 1942.
Co catalysts and also for Ni or Fe possibly activated with Th, Mn, U, Ce or Mg oxide. HYDROCARBONS;PRODUCTION;REDUCTION;CARBON MONOXIDE;CATALYSTS;REGENERATION;COBALT;NICKEL; IRON
- 06035 HYDROCARBONS FROM CARBON MONOXIDE AND HYDROGEN BY CATALYSIS. (to N. V. Internationale Koolwaterstoffen Synthese Maatschappij). Netherlands Patent 53,262. 15 Oct 1942.
Production of methane, ethane, ethene, C-C₄ alkenes, gasoline, middle oil, solid paraffin, and ethanol. CARBON MONOXIDE;REDUCTION;HYDROGEN; HIGH TEMPERATURE;HIGH PRESSURE;CATALYSTS; PRODUCTION;METHANE;ETHANE;ALKENES;GASOLINE;OILS; PARAFFIN;ETHANOL;HYDROCARBONS
- 06036 HYDROCARBONS OBTAINED BY HYDROGENATING CARBONACEOUS MATERIAL. (to N. V. Internationale Hydrogeneeringsocctroolen Maatschappij). Netherlands Patent 53,265. 15 Oct 1942.
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- 06037 HYDROCARBONS FROM GASEOUS MIXTURES OF CARBON MONOXIDE, HYDROGEN, AND CARBON DIOXIDE. Koelbel, H.; Ackermann, P. (to Steinkohlen-Bergwerk "Rheinpreussen"). German(FRG) Patent 728,217. 22 Oct 1942.
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- 06038 STARTING OF CONTACT CATALYSTS. Sauter, E. (to Braunkohle-Benzol). German(FRG) Patent 728,766. 5 Nov 1942.
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- 06039 CATALYST FOR CONVERTING CARBON MONOXIDE AND HYDROGEN INTO HYDROCARBONS. (to International Hydrocarbon Synthesis Co.). Netherlands Patent 53,611. 15 Dec 1942.
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Use of Ni--Al₂O₃ catalysts. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; REDUCTION; CATALYSTS; NICKEL ALLOYS; ALUMINIUM OXIDES
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- 06356 HYDROCARBONS, ALCOHOLS, ALDEHYDES, ETC., BY THE REACTION OF CARBON MONOXIDE AND HYDROGEN. Houtman, J.P.W.; Engel, W.F.; Hoog, H. (to N. V. de Bataafsche Petroleum Maatschappij). Netherlands Patent 64,719. 15 Nov 1949.
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- 06358 HYDROCARBON SYNTHESIS CATALYST. Walden, G.H.; Pierce, J.A.; Segura, M.A. (to Standard Oil Development Co.). US Patent 2,488,150. 15 Nov 1949.
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- 06359 CATALYST PURIFICATION. Griffin, L.I., Jr. (to Standard Oil Development Co.). US Patent 2,487,867. 15 Nov 1949.
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- Use of 2 reactors, the first to produce primarily isoparaffins and the second to produce olefins; catalyst for 1st reactor is Al₂O₃-ThO₂ or ZnO-Al₂O₃ at 750-900°F and 300-500 atm; second reactor operates at 550-700° and 200 p.s.i. with Fe catalyst promoted by Al₂O₃ and K₂O. HYDROCARBONS; PRODUCTION; SYNTHETIC FUELS; LIQUID PRODUCTS; CATALYSTS; ALKANES; ISOMERS; ALKENES; ALUMINIUM OXIDES; THORIUM OXIDES; ZINC OXIDES; POTASSIUM OXIDES; PROMOTERS
- 06415 CATALYTIC SYNTHESIS OF HYDROCARBONS. Keith, P.C. US Patent 2,506,221. 2 May 1950.
 Reduction of CO; 4 catalyst zones connected in series containing powdered Fe, Na₂O, Al₂O₃; 650°F; 240 p.s.i.. HYDROCARBONS; PRODUCTION; CATALYSTS; CARBON MONOXIDE; REDUCTION; LIQUID PRODUCTS; IRON; SODIUM OXIDES; ALUMINIUM OXIDES
- 06416 STAINLESS STEEL CATALYST FOR HYDROCARBON SYNTHESIS. Layng, E.T. (to Hydrocarbon Research, Inc.). US Patent 2,506,266. 2 May 1950.
 Stainless steel in finely divided particle size containing 4-30% Cr, 4-8% Ni, activated by small amount of Na compounds; production of hydrocarbons in gasoline range by reduction of CO. STAINLESS STEELS; CATALYSTS; HYDROCARBONS; PRODUCTION; CHROMIUM; NICKEL; SODIUM COMPOUNDS; CARBON MONOXIDE; REDUCTION; GASOLINE
- 06417 SYNTHESIS OF HYDROCARBONS. Frankenburg, W.G. (to Hydrocarbon Research, Inc.). US Patent 2,507,510. 16 May 1950.
 Reduction of CO by H using Ti boride catalyst at 260-399°; pressure is not critical but usually atm to 500 p.s.i.. HYDROCARBONS; PRODUCTION; LIQUID PRODUCTS; GASOLINE; CARBON MONOXIDE; REDUCTION; CATALYSTS; TITANIUM BORIDES; HIGH TEMPERATURE
- 06418 HYDROCARBON SYNTHESIS. Kirshenbaum, I. (to Standard Oil Development Co.). US Patent 2,509,869. 30 May 1950.
 From CO and H at 530 to 750°F at 150 to 650 lb/in²; preparation of catalysts of Cr₂O₃, Fe₂O₃, and K₂CO₃. IRON; CATALYSTS; HYDROCARBONS; PRODUCTION; LIQUID PRODUCTS; CARBON MONOXIDE; REDUCTION; HYDROGEN; HYDROGENATION; CHEMICAL PREPARATION; HIGH TEMPERATURE; MEDIUM PRESSURE; CHROMIUM OXIDES; IRON OXIDES; POTASSIUM CARBONATES; IRON NITRATES; AMMONIUM COMPOUNDS; HYDROXIDES
- 06419 CATALYTIC SYNTHESIS OF HYDROCARBONS. Powell, A.R. (to Koppers Co., Inc.). British Patent 638,087. 31 May 1950.
 Reduction of CO; Fe catalyst. HYDROCARBONS; PRODUCTION; CATALYSTS; CARBON MONOXIDE; REDUCTION; IRON
- 06420 SYNTHESIS OF HYDROCARBONS AND OXYGENATED HYDROCARBONS. Frankenburg, W.G.; Layng, E.T. (to Hydrocarbon Research, Inc.). US Patent 2,510,096. 6 Jun 1950.
 Hydrogenation of CO over fluidized Fe catalysts. HYDROCARBONS; PRODUCTION; LIQUID PRODUCTS; CARBON MONOXIDE; REDUCTION; CATALYSTS; IRON
- 06421 SYNTHESIS CATALYST. Buchmann, F.J. (to Standard Oil Development Co.). US Patent 2,512,608. 27 Jun 1950.
 Spraying of molten Fe, Co, or Ni containing activating material onto spherical particles of Al in reducing atmosphere; clays, silica gel, or C may be used in place of Al. CATALYSTS; IRON; COBALT; NICKEL; CHEMICAL PREPARATION; ALUMINIUM; PROMOTERS; CLAYS; SILICA GEL; CARBON
- 06422 CATALYST REGENERATION. Mattox, W.J. (to Standard Oil Development Co.). US Patent

- 2,515,245. 18 Jul 1950.
Fe-type synthesis catalyst heated in steam or CO₂ at 260 and 593° in oxidizing atmosphere. CATALYSTS; REGENERATION; IRON; STEAM; CARBON DIOXIDE
- 06423 HYDROCARBONS AND OXYGEN DERIVATIVES. (to N.V. de Bataafsche Petroleum Maatschappij). British Patent 640,311. 19 Jul 1950.
Production of hydrocarbons by reduction of CO with H at high temperature in presence of catalyst containing less than 2% alkali silicate. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; REDUCTION; CATALYSTS
- 06424 SUPPORTED COBALT CATALYST FOR HYDROCARBON SYNTHESIS. Sensel, E.E.; Stewart, M.M. (to Texas Co.). US Patent 2,517,036. 1 Aug 1950.
Catalysts of 32% Co promoted by 1% ThO₂ and 3% MgO supported on 64% of equal amounts of uncalcined diatomaceous earth and alumina containing less than about 0.8% alkali metal compound such as Na₂O and stabilized with about 5% SiO₂ used in reduction of CO by H and synthesis of O-containing compounds. HYDROCARBONS; PRODUCTION; COBALT; CATALYSTS; THORIUM OXIDES; MAGNESIUM OXIDES; PROMOTERS; DIATOMACEOUS EARTH; ALUMINIUM OXIDES; SODIUM OXIDES; SILICON OXIDES; CARBON MONOXIDE; REDUCTION
- 06425 PRODUCT SEPARATION FOLLOWING SYNTHESIS GAS CONVERSION. Arnold, G.B.; Hess, H.V.; Stewart, M.M. (to Texas Co.). US Patent 2,516,940. 1 Aug 1950.
Catalytic conversion of CO and H into hydrocarbons. CARBON MONOXIDE; REDUCTION; CATALYSTS; HYDROCARBONS; PRODUCTION; SYNTHETIC FUELS
- 06426 COBALT CATALYST FOR HYDROCARBON SYNTHESIS. Sensel, E.E.; Beck, R.A. (to Texas Co.). US Patent 2,517,035. 1 Aug 1950.
Catalyst of 32% Co promoted by 0.5-10 La₂O₃ and 3% MgO and supported on uncalcined diatomaceous earth for reduction of CO by H to liquid hydrocarbons. COBALT; CATALYSTS; HYDROCARBONS; PRODUCTION; LANTHANUM OXIDES; PROMOTERS; LIQUID PRODUCTS
- 06427 CATALYTIC IMPROVEMENT OF HYDROCARBON SYNTHESIS PRODUCT. (to Standard Oil Development Co.). British Patent 641,121. 2 Aug 1950.
Upgrading of gasoline produced by Fischer-Tropsch synthesis; isomerization of olefins. HYDROCARBONS; PRODUCTION; GASOLINE; FISCHER-TROPSCH SYNTHESIS; CATALYSTS; ALKENES; ISOMERS
- 06428 REACTOR FOR HYDROCARBON SYNTHESIS WITH A FLUID CATALYST BED AND SEPARATELY REMOVABLE BUNDLES OF HEAT-EXCHANGE ELEMENTS, EACH BUNDLE HAVING SEPARATE FEED AND DISCHARGE MANIFOLDS. Barr, F.T. (to Standard Oil Development Co.). US Patent 2,518,270. 8 Aug 1950.
Reduction of CO with H at 350-700°F. HYDROCARBONS; PRODUCTION; EQUIPMENT; CATALYSTS; CARBON MONOXIDE; REDUCTION; HEAT EXCHANGERS
- 06429 CATALYST FOR FISCHER--TROPSCH SYNTHESIS. (to Standard Oil Development Co.). British Patent 641,266. 9 Aug 1950.
Catalyst prepared by mixing 5% K₂Sb₂O₇ with 95% Fe₃O₄; reduction of CO by H at 550°F and 150 p.s.i.. CATALYSTS; FISCHER-TROPSCH SYNTHESIS; HYDROCARBONS; PRODUCTION; IRON OXIDES; POTASSIUM OXIDES; ANTIMONY OXIDES; CARBON MONOXIDE; REDUCTION
- 06430 CATALYST FOR FISCHER--TROPSCH SYNTHESIS. (to Standard Oil Development Co.). British Patent 641,261. 9 Aug 1950.
Mixture of Fe or Fe oxide and alkali-metal ferrate reduced at 371-871°. CATALYSTS; FISCHER-TROPSCH SYNTHESIS; IRON; IRON OXIDES; CARBON MONOXIDE; REDUCTION
- 06431 HYDROCARBON-OXYGEN MIXTURES. Deming, P.H. (to Shell Development Co.). US Patent 2,519,955. 22 Aug 1950.
Production of Fischer--Tropsch synthesis gas. METHANE; OXYGEN; STEAM; NATURAL GAS; LIQUID PRODUCTS; FISCHER-TROPSCH SYNTHESIS; PRODUCTION; HYDROCARBONS
- 06432 GASES FOR THE SYNTHESIS OF HYDROCARBONS. (to Standard Oil Development Co.). British Patent 641,945. 23 Aug 1950.
CO and H passed over catalysts of Fe, Co, Ni, or mixtures of them with or without Zn. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; HYDROGEN; CATALYSTS; IRON; COBALT; NICKEL; ZINC
- 06433 WATER GAS. Steinschlaeger, M. US Patent 2,520,860. 29 Aug 1950.
WATER GAS; PRODUCTION; CARBONACEOUS MATERIALS; CARBON MONOXIDE; METHANE
- 06434 REACTOR FOR HYDROCARBON SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN. Rees, H.V. (to Texaco Development Corp.). US Patent 2,521,538. 5 Sep 1950.
Catalyst arranged on surface of vertical, perforated tubes with cooling fluid circulating through interior of tubes. HYDROCARBONS; PRODUCTION; EQUIPMENT; CARBON MONOXIDE; REDUCTION
- 06435 CATALYST FOR PREPARING HYDROCARBONS AND OXYGENATED COMPOUNDS. Schiller, J.C. (to Standard Oil Development Co.). US Patent 2,525,080. 10 Oct 1950.
Iron oxide catalyst with promoter of alkali metal trioxalatoferrate, such as K₃Fe(C₂O₄)₃ X 3H₂O. CARBON MONOXIDE; REDUCTION; HYDROGENATION; HYDROGEN; CATALYSTS; CHEMICAL PREPARATION; POTASSIUM COMPOUNDS; IRON COMPOUNDS; OXALATES; ORGANOMETALLIC COMPOUNDS; HYDROCARBONS; PRODUCTION
- 06436 SEPARATING POWDERED CATALYSTS FROM EXOTHERMICALLY REACTIVE GASES. Garbo, P.W. (to Hydrocarbon Research, Inc.). US Patent 2,526,651. 24 Oct 1950.
Use of catalyst poison to prevent destruction of catalyst and formation of undesired products. CATALYSTS; CHEMICAL PREPARATION; FLUIDIZED BED; FISCHER-TROPSCH SYNTHESIS; CARBON MONOXIDE; REDUCTION; HYDROGENATION; AMMONIA; IRON; POWDERS
- 06437 REMOVAL OF EXOTHERMIC HEAT OF REACTION. Clark, A. (to Phillips Petroleum Co.). US Patent 2,526,934. 24 Oct 1950.
In the synthesis of hydrocarbons by catalytic conversion of CO--H mixtures. CATALYSTS; IRON; MEDIUM PRESSURE; CARBON MONOXIDE; REDUCTION; HYDROGEN; HYDROGENATION; HIGH TEMPERATURE; REACTION HEAT; COOLANTS; WATER; FISCHER-TROPSCH SYNTHESIS; TEMPERATURE DEPENDENCE; HYDROCARBONS; PRODUCTION
- 06438 CATALYST FOR FISCHER--TROPSCH SYNTHESIS. Hemminger, C.E. (to Standard Oil Development Co.). US Patent 2,527,130. 24 Oct 1950.
3 to 15% Si incorporated in Fe catalyst. FISCHER-TROPSCH SYNTHESIS; CATALYSTS; SILICON; IRON; CHEMICAL PREPARATION; COAL GASIFICATION
- 06439 HYDROCARBON SYNTHESIS WITH SPHERICAL CATALYST PARTICLES. Watts, R.N. (to Standard Oil Development Co.). US Patent 2,530,344. 14 Nov 1950.
Preparation of catalyst of iron spheres with oxide coating for hydrogenation of CO. HYDROCARBONS; PRODUCTION; SPHERES; IRON; CATALYSTS; IRON OXIDES; COATINGS; CARBON MONOXIDE; REDUCTION;

- CHEMICAL PREPARATION; SPRAYS; POTASSIUM CARBONATES; HYDROGENATION; HYDROGEN
- 06440 HYDROCARBON SYNTHESIS. Holder, C.H. (to Standard Oil Development Co.). US Patent 2,530,243. 14 Nov 1950.
Regeneration of fluidized Fe catalyst. HYDROCARBONS; PRODUCTION; IRON; POWDERS; CARBON MONOXIDE; REDUCTION; HYDROGENATION; HYDROGEN; CATALYSTS; REGENERATION
- 06441 HYDROCARBON SYNTHESIS FROM CARBON MONOXIDE AND HYDROGEN. Martin, H.Z. (to Standard Oil Development Co.). US Patent 2,530,977. 21 Nov 1950.
Regulation of CO:H₂ ratio by addition of H₂O sorbent to catalyst. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; REDUCTION; HYDROGENATION; WATER; ADSORPTION; HYDROGEN; CATALYSTS
- 06442 SYNTHESIS OF HYDROCARBONS. Scharmann, W.G. (to Standard Oil Development Co.). US Patent 2,530,998. 21 Nov 1950.
Regeneration of catalysts. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; REDUCTION; IRON; CATALYSTS; OXIDATION; REGENERATION; HIGH TEMPERATURE; VERY HIGH TEMPERATURE
- 06443 CATALYTIC REDUCTION OF CARBON MONOXIDE BY HYDROGEN. Frankenburg, W.G. (to Hydrocarbon Research, Inc.). US Patent 2,531,420. 28 Nov 1950.
Catalysts of nitrides of transition elements of groups IVA, VA, VIA, and VIIA. CARBON MONOXIDE; HYDROGENATION; REDUCTION; HYDROGEN; CATALYSTS; CHEMICAL PREPARATION; TRANSITION ELEMENT COMPOUNDS; NITRIDES; HYDROCARBONS; LIQUID PRODUCTS
- 06444 CATALYST REGENERATION. Voorhies, A., Jr. (to Standard Oil Development Co.). US Patent 2,533,072. 5 Dec 1950.
Regeneration of fluidized catalyst for synthesis of hydrocarbons from CO and H. CARBON MONOXIDE; REDUCTION; HYDROGEN; HYDROGENATION; CARBON; HYDROCARBONS; DECARBONIZATION; HIGH TEMPERATURE; PRODUCTION; CATALYSTS; REGENERATION
- 06445 CATALYST FOR HYDROCARBON SYNTHESIS. Vesternal, H.G.; Sykes, H.J. (to Standard Oil Development Co.). US Patent 2,533,071. 5 Dec 1950.
Preparation of Fe catalyst for hydrogenation of CO. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; REDUCTION; HYDROGENATION; HYDROGEN; IRON; CATALYSTS; CHEMICAL PREPARATION; IRON CARBONATES; DECOMPOSITION; SPINELS; VAPORS; HIGH TEMPERATURE
- 06446 CATALYTIC SYNTHESIS OF HYDROCARBONS. (to Standard Oil Development Co.). British Patent 647,052. 6 Dec 1950.
Regeneration of Fe catalyst. HYDROCARBONS; PRODUCTION; IRON; CATALYSTS; REGENERATION; CARBON MONOXIDE; HYDROGEN; FLUIDIZED BED; REDUCTION
- 06447 CONDITIONING IRON CATALYST. Safford, R.V. (to Stanolind Oil and Gas Co.). US Patent 2,535,694. 12 Dec 1950.
For synthesis of hydrocarbons from CO and H at 450 to 675°F and 175 to 325 lb/in². IRON; ALKALI METALS; CATALYSTS; CARBON MONOXIDE; HYDROGEN; REDUCTION; HYDROGENATION; LIQUID PRODUCTS; HYDROCARBONS; PRODUCTION; POWDERS; HIGH TEMPERATURE; MEDIUM PRESSURE; CHEMICAL PREPARATION
- 06448 SYNTHESIS OF HYDROCARBONS. Atwell, H.V. (to Texas Co.). US Patent 2,534,395. 19 Dec 1950.
By Fe-catalyzed reduction of C oxides with H using 2nd catalyst, phosphoric acid type, for polymerizing gaseous olefins at 288 to 371° and 200 to 400 lb/in². CARBON MONOXIDE; REDUCTION; HYDROGENATION; HYDROCARBONS; COPPER PHOSPHATES; CATALYSTS; POLYMERIZATION; GASEOUS PRODUCTS; ALKENES; IRON; HIGH TEMPERATURE; MEDIUM PRESSURE; PHOSPHORUS OXIDES; PRODUCTION
- 06449 GASOLINE. Atwell, H.V. (to Texas Co.). US Patent 2,535,343. 26 Dec 1950.
Production from CO and H in 5-stage process. GASOLINE; HYDROCARBONS; PRODUCTION; CATALYSTS; ADSORPTION; CARBON DIOXIDE; WATER; CARBON MONOXIDE; REDUCTION; HYDROGENATION; HYDROGEN
- 06450 STUDY OF THE FISCHER-TROPSCH SYNTHESIS WITH FLUIDIZED IRON CATALYSTS. Hall, C.C.; Rennie, J. (Fuel Research Sta., East Greenwich, London). Proc. 3rd World Petroleum Congr., Hague, 1951: No. IV, 25-37(1951).
Comparison of activity and products. FISCHER-TROPSCH SYNTHESIS; CATALYSTS; IRON; ALKALI METAL COMPOUNDS; COMPARATIVE EVALUATIONS; FLUIDIZED BED
- 06451 PRODUCTION OF OIL FROM COAL. Latagan, P.N. Coke and Gas; 13: 385-90(1951).
Methods, hydrogenation process, Fischer-Tropsch process, purification and composition adjustment, gasification economics, synthesis, temperature, pressure, H:CO ratio, catalysts, and synthesis economics. COAL; SYNTHETIC FUELS; LIQUID PRODUCTS; FUEL OILS; FISCHER-TROPSCH SYNTHESIS; ECONOMICS; CATALYSTS; PRODUCTION
- 06452 FURTHER STUDIES OF OHIO COALS AND OIL SHALES. I. SOME STUDIES OF OHIO COALS AND OIL SHALES. II. OHIO COALS. III. OHIO SHALES AND CANNEL COALS. Krumin, P.O.; Smith, W.H.; Bowen, C.H. (Ohio State Univ., Columbus). Ohio State Univ. Studies Eng. Expt. Sta. Bull.; No. 143, 1-69(1951).
Production of synthetic liquid fuels. COAL; OIL SHALES; OHIO; CANNEL COAL; SYNTHETIC FUELS; LIQUID PRODUCTS; PRODUCTION
- 06453 FISCHER-TROPSCH REACTION MECHANISM INVOLVING STEPWISE GROWTH OF THE CARBON CHAIN. Anderson, R.B.; Friedel, R.A.; Storch, H.H. (U. S. Bur. of Mines, Bruceton, PA). J. Chem. Phys.; 19: 313-19(1951).
Using Fe and Co catalysts. FISCHER-TROPSCH SYNTHESIS; CATALYSTS; IRON; COBALT; CHEMICAL REACTION KINETICS
- 06454 CHLORIDE POISONING OF IRON-COPPER FISCHER-TROPSCH CATALYSTS. Hofer, L.J.E.; Anderson, R.B.; Peables, W.C.; Stein, K.C. (U. S. Bur. of Mines, Bruceton, PA). J. Phys. and Colloid Chem.; 55: 1201-6(1951).
Fe⁺⁺ needed for catalyst activity; poisoning of catalyst by Cl. CATALYSTS; POISONING; IRON; COPPER; IRON OXIDES; CHLORIDES
- 06455 SYNTHETIC MOTOR FUEL FROM CARBON MONOXIDE AND WATER. Rapoport, I.B. Paliva; 31: 328-37(1951).
SYNTHETIC FUELS; CARBON MONOXIDE; REDUCTION; WATER; REVIEWS; PRODUCTION
- 06456 CATALYST EVALUATION AND MIDDLE-OIL PREPARATION IN AN EXPERIMENTAL HIGH-PRESSURE COAL-HYDROGENATION PLANT. I. Kandiner, H.J.; Hiteshue, R.W.; Clark, E.L. (U. S. Bur. of Mines, Pittsburgh, PA). Chem. Eng. Progr.; 47: 392-6(1951).
Comparison of results obtained in liquid-phase hydrogenation of bituminous coal by Sn, Zn, Ni, and Fe catalysts and in the absence of catalysts. BITUMINOUS COAL; COAL PASTES; COAL; HYDROGENATION; HIGH TEMPERATURE; MEDIUM PRESSURE; CATALYSTS; TIN; ZINC; NICKEL; IRON; COMPARATIVE EVALUATIONS
- 06457 MECHANISM STUDIES OF THE FISCHER-TROPSCH SYNTHESIS. ADDITION OF RADIOACTIVE ALCOHOL. Kummer, J.T.; Podgurski, H.H.; Spencer, W.B.; Emmett, P.H. (Mellon Inst., Pittsburgh, PA). J. Amer. Chem. Soc.; 73:

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- 06456 SYNTHESIS OF HYDROCARBONS. REPORT OF THE IMPERIAL FUEL RESEARCH INSTITUTE OF JAPAN, JULY 25, 1935. Tsutsumi, S. U. S. Bur. Mines, Inform. Circ.; No. 7594, 60p.(1951).
Effects of reaction temperature, gas velocity, composition of synthesis gas, and catalysts on yields of liquid hydrocarbons. CARBON MONOXIDE;REDUCTION;HYDROGENATION; HYDROGEN;CATALYSTS;CHEMICAL PREPARATION; ACETATES;NITRATES;NICKEL;MANGANESE;URANIUM OXIDES U3O8;THORIUM OXIDES;SILVER;COPPER; HYDROCARBONS;PRODUCTION;GASOLINE;SYNTHESIS GAS; LIQUID PRODUCTS;DIATOMACEOUS EARTH;SILICA GEL
- 06459 FISCHER--TROPSCH SYNTHESIS WITH IRON CATALYSTS. I. Koelbel, H.; Ackermann, P.; Ruschenburg, E.; Langheim, R.; Engelhardt, F. (Werk Homberg der Chem. Werke, Reinpreussen, Ger.). Chem.-Ing.-Tech.; 23: 153-7(1951).
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- 06460 FISCHER--TROPSCH SYNTHESIS WITH IRON CATALYSTS. II. CONDITIONING AND STARTING-UP OF IRON CATALYSTS, BEHAVIOR DURING SYNTHESIS, AND RESULTS OBTAINED IN VARIOUS SYNTHESIS PROCESSES. Koelbel, H.; Ackermann, P.; Ruschenburg, E.; Langheim, R.; Engelhardt, F. (Werk Homberg der Chem. Werke, Reinpreussen, Ger.). Chem.-Ing.-Tech.; 23: 183-9(1951).
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- 06462 HYDROCARBON SYNTHESIS CATALYST STUDIES. USE OF DEUTERIOCHLORIC ACID. Weck, H.I.; Meyerson, S.; Seelig, H.S. J. Amer. Chem. Soc.; 73: 2331-3(1951).
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- 06463 FISCHER--TROPSCH SYNTHESIS IN SLURRY PHASE. Schlesinger, M.D.; Crowell, J.H.; Leva, M.; Storch, H.H. (U. S. Bur. of Mines, Bruceton, PA). Ind. Eng. Chem.; 43: 1474-9(1951).
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- 06464 CONTINUOUS DISTILLATION OF COAL TAR. Niewiadomski, T. Przem. Chem.; 30: 666-75(1951).
COAL TAR; DISTILLATION
- 06465 BENCH-SCALE STUDIES OF THE FISCHER--TROPSCH SYNTHESIS OVER IRON, NICKEL, AND NICKEL--COBALT CATALYSTS. Watanabe, S. (Hokkaido Synthetic Petroleum Works, Inc., Japan). U. S. Bur. Mines, Inform. Circ.; No. 7611, 26p.(1951).
Comparative evaluation of oil yields using different catalysts. FISCHER-TROPSCH SYNTHESIS; CARBON MONOXIDE; HYDROGEN; REDUCTION; CATALYSTS; NICKEL; MANGANESE; KAOLIN; DIATOMACEOUS EARTH; COBALT; MAGNESIUM OXIDES; THORIUM OXIDES; IRON; COMPARATIVE EVALUATIONS; PRODUCTION; OILS
- 06466 SYNTHETIC LIQUID FUELS. ANNUAL REPORT OF THE SECRETARY OF THE INTERIOR FOR 1950. I. OIL FROM COAL. U. S. Bur. Mines, Rept. Invest.; No. 4770, 74p.(1951).
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Tracer studies of intermediates. FISCHER-TROPSCH SYNTHESIS; CHEMICAL REACTION KINETICS; TRACER TECHNIQUES; CATALYSTS; IRON; COBALT
- 06469 CATALYST CONTAINING MAGNETITE. Pierce, J.A. (to Standard Oil Development Co.). US Patent 2,537,699. 9 Jan 1951.
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- 06470 SYNTHESIS OF HYDROCARBONS. Watson, C.W. (to Texas Co.). US Patent 2,537,496. 9 Jan 1951.
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- 06471 SYNTHESIZING HYDROCARBONS AND OXYGENATED COMPOUNDS. Mosesman, M.A. (to Standard Oil Development Co.). US Patent 2,537,688. 9 Jan 1951.
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- 06472 HYDROCARBON SYNTHESIS. Worsham, C.H. (to Standard Oil Development Co.). US Patent 2,537,178. 9 Jan 1951.
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Heating in oxygen-free atmosphere. CARBON MONOXIDE; HYDROGENATION; REDUCTION; HYDROGEN; IRON; CATALYSTS; HYDROCARBONS; PRODUCTION; REGENERATION; FLUIDIZED BED
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3-stage process for preparation of fluidized iron catalyst for reduction of CO with H. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; REDUCTION; HYDROGENATION; CATALYSTS; CHEMICAL PREPARATION; IRON OXIDES; HIGH TEMPERATURE; SINTERING; ADDITIVES; PROMOTERS; POTASSIUM CARBONATES; GRINDING; AQUEOUS SOLUTIONS
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Preparation of fluidized catalyst of synthetic NH₃ and fused magnetite containing 0.7% K₂O conditioned by passing H and CO through it at reaction conditions (>600°F and 350 lb/in²) for 40 to 200 hrs. FLUIDIZED BED; CATALYSTS; CHEMICAL PREPARATION; AMMONIA; IRON OXIDES; POTASSIUM OXIDES; HYDROGENATION; CARBON MONOXIDE; REDUCTION; HIGH TEMPERATURE; HYDROCARBONS; PRODUCTION; HYDROGEN; CARBON DIOXIDE
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Microspheres of Fe, Co, or Ni promoted with K₂CO₃. CARBON MONOXIDE; REDUCTION; HYDROGEN; PRODUCTION; HYDROCARBONS; CATALYSTS; MICROSPHERES; IRON; NICKEL; COBALT; PROMOTERS; POTASSIUM CARBONATES; PARTICLE SIZE
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Iron catalyst regeneration by heating to 600 to 1050°F at 250 lb/in² with H₂-H₂O. HYDROCARBONS; PRODUCTION; CARBON MONOXIDE; HYDROGEN; HYDROGENATION; ORGANIC OXYGEN COMPOUNDS; HIGH TEMPERATURE; VERY HIGH TEMPERATURE; MEDIUM PRESSURE; CATALYSTS; CHEMICAL PREPARATION; IRON; REGENERATION; STEAM; REDUCTION
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