GERMAN PATENTS

Ger. 115,016 of 1899 to Wuppermann & Co.
Glasses and enamels opacified by addition of white titanic acid.

Ger. 123,860 of May 27, 1899 to F. M. Spence, D. D. Spence and H. Spence.
Method of preparing basic sulfuric acid titanium double salts
Rutile with Na_2CO_3, then W. 60-70% H_2SO_4. Other ores with H_2SO_4 direct. Equiv. Br. 4183 of 1899; U.S. 681,993.

Ger. 126,091 of February 20, 1901 to A. J. Rossi, J. M. Naughton and W. D. Edmond.
Winning of titanium from titanium containing iron ore

Ger. 139,059 and add.139,060 and 139,858 of Jan. 1, 1901 to C. Dreher.
Dyeing with titanium salts and mordant colors

Ger. 140,193 of March 16, 1901 to C. Dreher
Coloring leather with titanium salts
Add. to 126,598

Ger. 142,464 of June, 1903 to C. Dreher
Dyeing leather with aid of Ti salts

Ger. 149,602 of Sept. 5, 1902 to P. Spence & Sons, Ltd.
Titanium Compound
$Ti_2Na_2(SO_4)_4 + 5H_2O$

Ger. 152,257 of Jan. 9, 1903 to C. Dreher
Separation of titanic acid from mixtures with iron, aluminum and other metals.
Bauxite with conc. H_2SO_4 . Zn, Fe, Na amalgam, etc. used to red. solution. Br. 1,835 of 1902.

Ger. 154,542 of July 30, 1902 to P. Spence & Sons Ltd.
Method of obtaining titanium sesquichlorid in water soluble form.
$Ti_2Cl_6+8H_2O$

Ger. 186,980 of April, 1906 to H. Kuzel
Peptization of coagulated colloids of the elements titanium,etc.

Ger. 189,364

Ger. 197,379 of Dec., 1905 to Kuzel.
Colloidal titaniums, etc.

Ger. 200,466 of May, 1906 to H. Kuzel
Variously formed articles of Ti, etc.

Ger. 200,986 of Mar. 31, 1907 to Badische Anilin & Soda Fabrik
Preparation of cyanides and cyanamides of the alkalis and alkaline earths.
From Titanium-nitrogen cpds.

Ger. 202,563 of Mar. 10, 1907 to Badische Aniline & Soda Fabr.
Preparation of ammonia from titanium cyanide

Ger. 203,750 of Aug. 31, 1907 to Badische Anilin & Soda Fabr.
Preparation of titanium-nitrogen compounds

Ger. 203,748; 204,204; 204,475 to Badische
Titanium nitride
Adds. to 202,563

Ger. 204,847 to Badische
Ammonia from nitrogen compounds of titanium

Ger. 207,001 of August 7, 1907 to Ch. Fabr. Güstrow, Hillringhaus and Heilmann.
Preparation of white opaque enamel by using titanic acid as a turbidity agent.

Ger. 218,316

Ger. 220,544 of Apr. 1910 to Sinding-Larsen & Willeimsen
Smelting of titanium iron ores
Ti nitride.

Ger. 221,429 of Apr. 25, 1909 to L. Weiss and M. Landecker
Separation of tantalic, niobic and titanic acids from one another.

Ger. 235,495 of June 5, 1910 to L. Weiss
Preparation of white pigments and lakes.
Zirconium pigments.

Ger. 237,232 of Oct. 1910 to K. Kassner
Separate extraction of oxygen and nitrogen from the air.

Ger. 237,436 of July 10, 1909 to Badische.
Purification of nitrogen compounds of silicon, aluminum, titanium, etc.

Ger. 242,271 of Feb. 13, 1910 to P. Farup.
Preparation of pigments by roasting iron containing minerals and subsequently suspending the products in water.
Ti iron ore used

Ger. 248,251 of July 7, 1911 to Kunheim & Co. and A. Stähler
Double formates and double acetates of trivalent titanium.

Ger. 256,858 of Jan. 25, 1911 to Chem. Werke. vorm. Dr. Heinrich Byk
Preparation of glycollic acid compounds.
With titanic acid

Ger. 260,906 of April 28, 1912 to P. Farup.
Preparation of a yellow pigment.
Roasting ilmenite with H_2SO_4. See U.S. 1,087,575

Ger. 261,922 of Sept. 24, 1912 to F. Meyer.
Carrying out chemical reactions at high temperature
Flame red. of $TiCl_4$, $SnCl_4$, etc.

Ger. 264,018

Ger. 267,867 of Jan. 1913 to R. van der Leeden
Obtaining halogen compounds of alkalies, titanium, etc. from natural double silicates.

Ger. 276,025 of July 2, 1913 to P. Farup
Titanic acid compounds
From ilmenite and free from iron. Conc. H_2SO_4 used.
See U.S. 1,156,280.

Ger. 281,004 of Feb. 5, 1914 to F. Meyer
Carrying out chemical reactions at high temperature
Add. to 261,922

Ger. 281,094 of Apr. 30, 1913 to F. Meyer and H. Kersten
Reduction of anhydrous metal chlorides.
Includes $TiCl_4$.

Ger. 282,748 of Oct. 1913 to G. Podszus
Manufacture of strong articles from nitrides

Ger. 286,054 of July, 1914
Zirconium Carbide and titanium carbide.

Ger. 290,631 of Oct. 1913 to P.H.Ledeboer
Extraction of iron, free from titanium, from titaniferous ferruginous sands.
Carbon used.

Ger. 292,470 of Apr. 17, 1913 to Titanium Alloy Manufacturing Co.
Preparation of titanium containing compounds for the purification of metals.

Ger. 298,279 of Aug. 26, 1913 to Ver. Chem. Fabr. Landau, Kreidl, Heller & Co.
Preparation of white enamel. Use of oxide and silicate of zirconium and titanium.

Ger. 300,898 of Oct. 26, 1916 to Norske Akt. Elektrokem. Ind.
Titanium-oxygen compound
U.S. 1,333,819. Br. 102,059.

Ger. 303,458 of Dec. 1, 1916 to Norske Akt. Elektrokem. Ind.
Titanic acid pigments resistant to chemical and physical agencies.
Containing phosphoric acid.

Ger. 307,951 of Mar. 3, 1917 to Norske Akt. Elek. Ind.
Preparation of white pigment.
Contg. TiO_2

Ger. 310,304 of Apr. 27, 1917 to Titan Co. A.-G.
Precipitating practically iron-free titanic acid from titanium solutions containing iron.
Fe electrolytically reduced and also small amt. Ti in order to have strong red. agent present to prevent reoxid. Fe. SO_2 not strong enough.

Ger. 310,502 of May 4, 1917 to Titan Co. A-G.
Precipitating titanic acid from concentrated solutions.

Ger. 310,792 of Aug. 22, 1915 to L. Max Wohlgemuth
Filter for analytical or industrial use.
Used for filtering hydroxide of Ti.

Ger. 312,090 of June 3, 1917 to Titan Co. - A.-G.
Preparation of titanium pigment.
TiO_2 to high temp. in order to crystallize. May be heated with alk. earth sulfate.

Ger. 319,561 of Mar. 10, 1918 to Ind.-en Mijnbonne-Maatschapij "Titan".
Method for extracting iron from titanium containing material

Ger. 324,581 of Oct. 17, 1919 to B. P. F. Kjellberg
Method of treating minerals containing iron and titanium or vanadium.

Ger. 326,813 of May 24, 1918 to Titan Co. - A.-S.
Preparation of white pigment.
Basic Ti salt with K, Ba or Sr carbonate

Ger. 330,707 of Mar. 1917 to R. Walter
Process for rendering the surfaces of metals more highly resistant to attack.

Ger. 334,248; 334,249 of Oct. 10, 1917 to O. Priess.
Preparation of titanium tetrachloride.

Ger. 337,395 of Jan. 17, 1917 to Titanium Pigment Co.
Winning of titanium oxide from titaniferous iron ore.

Ger. 337,396; 337,397 of Jan. 18, 1917 to Titanium Pigment Co.
Winning titanium oxide from titaniferous iron ore.

Ger. 344,223 of Jan. 9, 1920 to Gesell. fur Verwertung Chem. Prod.
Preparation of oxides, hydroxides and basic salts of the tri- and tetravalent elements.
Salt solutions of these elements with $MgCl_2$ sol. Sulfates of Sn, Ti, Al, etc. treated.

Ger. 347,603 of Jan. 3, 1921 to G. P. Guignard
Ammonia from nitrogen and carbon-nitrogen compounds of titanium.

Ger. 355,116 of Mar. 12, 1920 to Titan Co. -A.-S.
Preparation of body color.
Phosphoric acid or phosphate contg. titanium oxygen cpd. heated to 800-1100°.

Ger. 355,485 of Dec. 1920 to G. Siebert, Platin-Affinerie and Schmelze and E. Korten
Process for treatment of materials containing zirconium and similar metals, e.g., titanium, etc.

Ger. 355,738 of July 12, 1919 to Fabr. vorm. F. Bayer & Co.
Method for decomposing resistant minerals or oxides.
Rutile, titanite, etc. included.

Ger. 371,600 of May 29, 1921 to G. Carteret and M. Devaux
Preparation of titanium chloride from a titanium mineral rich in iron.

Ger. 383,565 of May 14, 1921 to F. Bayer & Co.
Light-fast lithopone.
Addition of TiO_2.

Ger. 390,657 of Nov. 3, 1921 to P. Andreu and R. Paquet.
Winning of ammonia and $Ti(OH)_4$.

Ger. 393,631 of Dec. 15, 1921 to F. v. Bichowsky and J. Harthan.
Titanium-nitrogen compound.

Ger. 396,695 of Nov. 24, 1921 to F. Bayer & Co.
Titanic acid from titanium iron compounds.

Ger. 399,690 of Mar. 18, 1921 to Titanium Pigment Co.
Preparation of white titanium pigment.

Ger. 409,478 of Dec. 14, 1923 to Soc. Anon. Compag. Gen. Prod. Chim.
Preparation of titanic acid.

Ger. 411,723 of Oct. 30, 1921 to Deutsche Gasglühlicht A.-G.
Iron-free titanic acid.
Ti hydrate with 10-30% H_2SO_4. Ferric salts red. by metals or SO_2.

Ger. 417,725 of Apr. 26, 1922 to Deutsche Gasglühlicht A.-G.
Precipitation of easily filterable hydrated titanic acid solution from titanium salt solutions.

Ger. 421,631 of Nov. 20, 1923 to Soc. Anon. Prod. Chim. Louvres
Manufacture of titanic acid.
$TiCl_4$ TiS_2 oxide

Ger. 422,727 of Jan. 24, 1924 to J. Blumenfeld
Titanic acid.
Separation by hydrolysis.

Ger. 422,772 to D. Gardner.
Preparation of iron-free titanium and titanium-free iron.

Ger. 429,483 to Titan Co..A.-S.
Preparation of titanic acid and ammonium sulfate.

Ger. 440,274 of Nov. 21, 1920 to J. Koerner.
Decomposing refractory minerals, especially of the class of the rare earths.
Ti or Zr minerals with silicofluorides.

Ger. 443,087 of Dec. 14, 1923 to Soc. Anoyme Comp.Gen. Prod. Chim. Louvres.
White titanic acid pigments.
From halogen cpds.

Ger. 453,120 of Nov. 25, 1925 to Silesia, Ver. Chem. Fabrk.
Obtaining titanic acid hydrate.

Ger. 453,367 of Aug. 6, 1926 to I. G, Farbenind A.G.
Preparation of the chlorides and bromides of silicon and titanium.

Ger. 478,136 of May 18, 1926 to National Metal and Chemical Bank, Ltd.
Treatment of titaniferous ores or compounds.
With oleum (SO_3 inc. H_2SO_4); no external heat necessary.

Ger. 478,740 of Sept. 12, 1929 to Metallgesellschaft A.G.
Production of titanium compounds by action of SO_2 on titaniferous residues.

Ger. 479,491 of Apr. 4, 1928 to I.G.Farbenind A.G.
Titanium Sulphates.

Ger. 479,721 of June 27, 1929 to The I.G.
Preparation of solid titanyl and titanium sulfates.

Ger. 484,021 of Oct. 28, 1926 to Siemens & Halske A.G.
Working of siliceous ores.
Rendered filterable or decantable by cooling as rapidly as possible from 80° to atm. temp. or below.

Ger. 484,969 of May 14, 1924 to Kali-Chemie A.-G.
Pigments: Bauxite heated to 250-450°.

Ger. 490,500 of Jan. 9, 1930 to The I.G.
Opening up titanium ores with dilute sulfuric acid.

Ger. 492,685 of May 21, 1927 to Titan Co. A.S.
Process for the reduction of solutions containing titanium, iron and perhaps other compounds.
Red. with iron or iron amalgam at 60°.

Ger. Appl. N-25,921 of Mar. 7, 1929, to National Metal and Chemical Banks, Ltd.
Treating titaniferous ores and compounds.

Ger. Appl. N-27,108 of Aug. 29, 1929 to National Metal and Chemical Co.
Preparation of white titanium pigments.

Ger. Appl. I-27 138 of Nov. 21, 1929 to The I.G.
Preparation of titaniferous pigments.

Ger. Appl. I-27,676 of Oct. 17, 1929 to The I.G.
Opening up titaniferous ores with sulfuric acid.

Ger. Appl. I-32,113 of Dec. 19, 1929 to The I.G.
Hydrolytic precipitation of white titanic acid.
In pres. of hydrofluoric acid or soluble fluorides.

Ger. Appl. T-33,159 of Jan. 2, 1930 to Titan Co. -A.G.
Preparation of titanium compounds.

Ger. Appl. T-33,510 of Nov. 7, 1929 to Titan Co. -A.G.
Reduction of solutions containing titanium, iron, etc.

Ger. Appl. I-34,032 of Mar. 21, 1929 to The I.G.
Preparation of solid titanyl and titanium sulfate.

Ger. Appl. I-34,058 of Mar. 21, 1929 to The I.G.
Preparation of concentrated titanyl and titanium sulfate solutions.

Ger. Appl. I-37,389 to The I.G.

Ger. Appl. D-48,592 of Feb. 21, 1929 to Deutsche Gasglühlicht-A.G.
Preparation of white titanic acid.

Ger. Appl. D-51,742 of Dec. 12, 1929 to Deutsche Gasglühlicht-A.G.
Hydrolytic splitting of acid titanium sulfate.

Ger. Application D-53,024 of Jan. 3, 1929 to Deutsche Gasglühlicht A.G.
Pigment with a titanium oxide base.

Ger. Application D-53,095 of May 23, 1927 to Deutsche Gasglühlicht-Auer-Gesellschaft.
Pretreatment of zirconium ores, titanium ores or ores of rare earths.

Ger. Appl. L-64,576 of Mar. 7, 1929 to K. Leuchs
Preparation of pure titanic acid.

Ger. Appl. B-112,279 of Oct. 10, 1929 to J. Blumenfeld.
Preparation of titanic acid solutions and titanium pigments.

Ger. Appl. K-112,757 of Oct. 31, 1929 to G. Knath.
Opening up titanium compounds.

Ger. Appl. B-125,096 of Apr. 21, 1926. App. in England Apr. 22, 1925 to Josef Blumenfeld
Prepn. of titanic acid pigments.

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