

FRENCH PATENTS

- French 47,123 to P. Pieperant and A. Helbronner
- ✓ French 284,198 of June 6, 1917 to Titanium Alloy Mfg. Co.
Titanic compound pigments.
- ✓ French 324,205 of Sept. 1902 to H. Spence
A new titanic compound and process for making the same.
- ✓ French 324,335 of Sept. 1902 to H. Spence,
A new titanic compound.
- French 327,528 of Dec. 1902.
Manufacture of combinations (of titanium lactate)
resistant to boiling water from titanic acid with
sulfuric and lactic acids.
- French 328,855 of Jan. 27, 1903 to C. Dreher
Extracting titanic acid from its combinations with
iron, aluminum and other metals.
Substs. such as Bauxite residues contg. titanic acid
with H_2SO_4 and nascent H, produced in sol. by
electrolysis or other means, such as Fe, Zn, etc.
Br. 1835 of 1903; Ger. 152,257.
- French 334,333 of June, 1903 to H. L. Herrenschmidt.
Treating ores and products containing vanadium,
molybdenum, titanium or tungsten.
- French 338,934.
- French 371,799 of Nov. 1906 to H. Kuzel
Colloidal solutions of titanium, etc.
- French 372,645 (?) of 1906.
- French 379,466 of July 21, 1909 to Van der Toorn
Treatment of ferruginous sand rich in Ti.
O and limestone.
- French 384,882 of Dec. 1907 to Sinding-Larsen & Williamsen
Treating titaniferous iron minerals.
- French 387,001 of Feb. 1908 to Badische.
Cyanides and cyanamides.
- French 387,002 of Feb. 1908 to Badische.
Nitrogen compounds and compounds of nitrogen and
titanium.
- French 412,563 of Feb. 1910 to P. Farup.
Preparation of colouring matters with the aid of
titaniferous iron ores.

French 412,653 (?) of 1910.

French 415,262 of March, 1920 to J. J. Loke
Fusion of titaniferous iron ores producing two artificial ores, one rich, the other poor in titanic acid.

French 432,786 of July, 1911 to F. Wolf-Burckhardt and W. Borchers.
A new glass and process for its manufacture.

French 438,908

French 443,081 of April, 1912 to P. Farup.
Yellow pigment from titaniferous iron ores.
See U. S. 1,087,575.

French 456,335

French 456,401 of March, 1913 to P. H. Ledeboer.
Extraction of iron free titanium from titaniferous ferruginous sands.

French 460,137 of July, 1913 to M. Günther.
Process of weighting silk.

French 462,587

French 463,623

French 466,721 of Jan. 1913 to R. van der Leeden.
Process for obtaining halogen compounds of titanium, etc. from natural double silicates.

French 474,309 (?) of June, 1914 to P. Farup.
Process of obtaining compounds of titanium and oxygen from ilmenite, titaniferous iron ores, or other substances.

French 475,642 of March, 1914, to P. Gounot.
Manufacture of titanic acid (oxide).

French 481,721; 481,722 of Jan. 9, 1917, to The Titanium Alloy Mfg. Co.
Titanium Pigments.

French 482,699 of Apr. 12, 1917 to The Titanium Alloy Mfg. Co.
Preparing a titanium product. Basic Ti sulfate gives pure TiO₂.

French 483,197; 483,198 of June 6, 1917 to The Titanium Alloy Mfg. Co.
Product from titanic acid.

- French 483,311 of June 26, 1917 to Norske Akt. Elektrokem. Ind.
Oxygen compounds of titanium. From ilmenite or other minerals contg. Ti and Fe with H_2SO_4 .
- French 483,780 of Aug. 8, 1917 to The Titanium Alloy Mfg. Co.
Titanic oxide from a titaniferous and ferruginous material.
- French 483,781 of August 8, 1917 to The Titanium Alloy Mfg. Co.
Titanic oxide from a titaniferous and ferruginous material. Ore with alk. sulfide,
- French 483,782 of Dec. 12, 1916 to Titanium Alloy Mfg. Co.
Preparation of titanium dioxide.
- French 484,198 of June 6, 1917 to The Titanium Alloy Mfg. Co.
Titanic compound pigments.
- French 484,712 of Oct. 31, 1917 to Norske Akt. Elektrokem. Ind.
White pigments from precipitated titanic hydroxide compounds. H_2SO_4 eliminated from Ti basic opds. by Ba salt.
- French 485,392 of Jan. 4, 1918 to Titan Co.
Converting amorphous oxygen compounds of titanium into crystalline form.
- French 485,393 of Jan. 4, 1918 to Titan Co.
Pigments: Ti - O opd. and $BaSO_4$.
- French 485,939 (?)
- French 485,975
- French 494,572 of 1917 to Titan Co.
Procede de preparation de composes de titane tetra-valents.
- French 494,607 of 1917 to Titan Co.
Perfectionnements au procede pour precepiter l'acide titanique de solution concentrees.
- French 504,254 (?) and add. 24,576 of 1918 (9) to Etabl. Poulenc et J. Gohin.
Titanium tetrachloride.
- French 505,269 of 1919 to Kjellberg
- French 513,393 and add. 22,911 of 1919 and 1920 to M. R. Raffin.
Preparation of titanium white.
- French 512,351 (?) of 1920 to Titan Co.

- French 524,594 of Mar. 19, 1920 to G. P. Guignard
Fixing nitrogen by titanium.
- French 533,686 of 1921 to Titanium Pigment Co.
- French 533,866 of Apr. 7, 1921 to Titanium Pigment Co., Inc.
Preparation of compounds of titanium oxide.
- French 541,673
- French 543,224 of July 30, 1920 to Carteret et Devaux
Preparation of titanium oxide and titanium oxide containing pigments.
- French 544,317 of Dec. 8, 1921 to F. v. Bichowsky and J. Harthan.
Preparation of titanium nitrogen compounds.
- French 544,837 of Apr. 5, 1921 to Carteret et Devaux.
Preparation of titanium compounds and pigments.
- French 545,097 of Dec. 26, 1921 to Chem. werke vor. Auergesellschaft.
Preparation of pure titanio acid from titanium minerals.
Trivalent iron reduced with Fe. Ger. priority, Jan. 9, and June 25, 1921.
Br. 173,774 not accepted.
Cannot find Ger. patents, probably not granted.
- French 548,691 of Mar. 10, 1922 to Consort. elektrochem. Ind.
Preparation of anhydrous chlorides. $TiCl_4$ from rutile and C.
- French 554,518 of July 27, 1922 to Farbenfabr. F-Bayer & Co.
Titanic acid.
- French 556,233 of 1921 to Carteret et Devaux.
- ✓ French 558,240 of Feb. 1, 1922 to G. Carteret et Devaux.
Titanium pigment.
- French 559,674 of Dec. 11, 1922 and add. 30,308 of 1925 to Chem. werke vor. Auergesellschaft.
Titanic acid from titanium ore. Conc. H_2SO_4 ; red. of ferric iron by metallic Fe; 5% Ti in trivalent form.
- French 566,026 of May 11, 1923 to Titan Co. A.-G.
Treatment of titanium nitrogen compounds.
- French 566,890 of May 31, 1923 to Titanium Pigments Co.
Treatment of titanium-containing material.
HF solution used.

- French 570,306 of 1923 to Pipereaut, etc.
Br. equiv. 207,555.
- French 572,890 of Jan. 20, 1923 to G. Carteret et M. Devaux.
Titanium oxide. $TiCl_4$ with oxygen.
- French 574,663 of Mar. 9, 1923 to P. Verola.
Titanium and zinc oxides.
- ✓ French 575,615 of Jan. 9, 1924 to J. Blumenfeld.
Titanium pigments.
- French 575,935 of Jan. 17, 1924 to M. R. Raffin.
Opaque colors. Fe or Ti ores with C.
- French 578,703 of Jan. 12, 1924 to J. Blumenfeld
Titanic acid. Ti ore with 70-90% H_2SO_4 .
- ✓ French 580,458 of July 4, 1923 to Compag. gen. Prod. chim.,
de Louvres.
Titanic acid and titanic compounds. $TiCl_4$ and $MgSO_4$.
- French 580,459 of July 4, 1923 to Comp. gen. Prod. chim
Louvres.
Titanic acid. Ti halides with sulfide.
- ✓ French 581,806 of May 17, 1924 to Ver. chem. und Met. Prod.
Opaque pigment. Titanic acid with MgO .
- French 590,743 of Feb. 15, 1924 to Fab. Prod. chim, de
Thann et de Mulhouse.
Neutralising titanic acid obtained by hydrolytic
precipitation from titanium sulfate.
- ✓ French 602,053; 602,054 of Aug. 11, 1925 to J. Blumenfeld.
Titanium pigments.
- French 35,214 of Apr. 20, 1928 to P. Rossi.
New Varnish with iron oxide base. Titanium white
may also be used. 2nd add. to Fr. 609,515.
- French 611,472 of June 16, 1925 to Fabr. Prod. chim. Thann
et Mulhouse.
Br. equiv. 253,550. $FeSO_4$ sep. by cooling.
- ✓ French 613,492 of July 22, 1925 to P. A. Zuber and M. Billy.
Titanium pigment. TiO_2 mixed with $BaCO_3$ or $CaCO_3$.
- French 620,303 of Titan Co.
Br. equiv. 271,085
- French 623,718 of Oct. 27, 1926 to Titan Co. A.-S.
Dissolving titanium containing material in acid.

- French 623,719 of Oct. 27, 1926 to Titan Co. A.-S.
Treating titanium material with acid under reducing conditions.
- French 623,720 of Oct. 27, 1926 to Titan Co. A.-S.
Working of iron containing titanium material.
- ✓ French 624,944 of Nov. 22, 1926 to Titan Co. A.-S.
Titanium product.
- ✓ French 624,945 of Nov. 22, 1926 to Titan Co. A.-S.
Titanium compound. Oxide or hydrated Ti compound with alkali.
- French 624,946 of Nov. 12, 1926 to Titanium Pigment Co. Inc.
Complex titanium pigments. Ti salt ppt. in pres. CaSO_4 .
- French 629,797 of Nov. 22, 1926 to Titan Co. A.-S.
Reduction of titanium, iron, etc. solutions.
- French 630,630 of Mar. 10, 1927 to I. G. Farbenind. A.G.
Decomposition of titanium ore.
- French 631,372 of Mar. 25, 1927 to National Metal and Chemical Bank, Ltd.
Titanium pigments.
- French 640,181 of Aug. 9, 1927 to J. Blumenfeld.
Pigments: compounds of titanium, etc.
- French 641,712 of Oct. 1, 1927 to I. G. Farbenind. A.G.
White, stable titanio acid. Red. agents such as SO_2 or its salts, which cannot transform quadrivalent Ti to tervalent Ti used for prod. titanio acid, used in such conc. to red. not only all Fe but all other oxidants present. Reoxid. of Fe prevented during subsequent washing.
- French 650,695 of Mar. 9, 1928 to The Silica Gel Corp.
Gels. TiO_2 gel included.
- French 652,269; 652,270 of Apr. 5, 1928 to The Silica Gel Corp.
Gels. Gel of TiO_2 .
- French 652,357 of Apr. 7, 1928 to Titanium Pigment Co. Inc.
Titanium compounds. See Br. 288,569.
- French 653,301 of Nov. 8, 1928 to Titanium, Ltd.
Manufacture of white pigment.
- French 653,893 of May 5, 1928 to I. G. Farbenind. A.-G.
Titanium compounds. See Can. 285,355.

- French 653,985 of May 8, 1928 to The I. G.
Manufacture of white titanium dioxide resistant to incandescent heat.
- French 655,085 of Oct. 14, 1927 to Soc. Minière "La Barytine".
White titanium oxide-barium sulfate pigment.
- French 655,399 of June 5, 1928 to R. H. Monk.
Alkaline earth titanates.
- French 655,701 of June 13, 1928 to The I. G.
Hydrolytic precipitation of white titanium oxide.
- French 655,905 of Oct. 28, 1927 to Soc. Roches et Minerais.
Production of a titanium oxide pigment. Ilmenite with 60° Be H_2SO_4 .
- French 663,068 of April 29, 1929 to M. Jacmart.
Manufacture of titanium oxide free from iron.
- French 666,109 of May 14, 1929 to Titanium Pigment Co.
Paints and their manufacture: Prep'd. by mixing a pigment paste of TiO_2 and insol. cpds. of Ba, Ca, or Al in a sol. of cellulose nitrate.
- French 666,314 of Dec. 22, 1928 to Deutsche Gold-und Silber-Scheideanstalt vorm. Roessler.
Colored pigments and opaqueing agents: Sol. cpds. of Ti, Zr, Sn, etc. to oxides and heated to 500-800° to obtain voluminous products for colored pigments.
- French 671,106 of Aug. 31, 1929 to J. Blumenfeld.
Manufacture of zirconium and titanium oxides.
- French 671,431 of Mar. 13, 1929 to Peter Spence and Sons, Ltd.
Preparation of pure silicic and titanic acids.
- French 671,639 of Mar. 18, 1929 to I. G. Farbenind. A.-G.
Titanyl sulfate and solid titanium sulfates.
- French 672,002 of Mar. 25, 1929 to Titanium Pigment Co.
Compounds of titanium and their manufacture. TiO_2
- French 672,003 of Mar. 25, 1929 to Titanium Pigment Co.
Titanium compound and its manufacture. TiO_2
- French 672,142 of Mar. 27, 1929 to I. G. Farbenind. A.-G.
Process for obtaining concentrated solutions of titanyl sulfate and of titanium sulfate.
Meta titanic acid with conc. H_2SO_4 (40-60° Be.)
- French 672,175 of Mar. 28, 1929 to National Metal and Chemical Bank,
Manufacture of composition containing titanium. TiO_2

- French 673,024 of April 12, 1929 to The I. G.
Purification of sulfuric acid solutions of titanium sulfate. Ilmenite with 80% H_2SO_4 .
- French 673,074 of April 13, 1929 to Deutsche Gasglühlicht A.G.
Purification of impure TiO_2 , especially a TiO_2 containing chromium.
- French 674,899 of Oct. 23, 1929 to M. L. Schmid.
New Process for the manufacture of different pigments with a base of alkaline earth sulfates, titanium dioxide; infusional earth, etc.
- French 676,280 of Nov. 28, 1929 to Soc. Miniere "La Barytine".
Manufacture of white titanium oxide pigments.
- French 676,281 of Nov. 28, 1929 to Soc. Miniere "La Barytine".
Manufacture of titanium salts.
- French 677,370 of Dec. 9, 1929 to M. R. Raffin.
Manufacture of titanium white.

FRENCH PATENTS

47,123	485,393	623,718
284,198	485,939 (?)	623,719
324,205	485,975	623,720
324,835	494,572	624,944
327,528	494,607	624,945
328,855	504,254 (?)	624,946
334,333	505,269	629,797
338,934	513,393 and add. 22,911	630,630
371,799	512,351 (?)	631,372 ✓
372,655 (?)	524,594	640,181 ✓
379,466	533,686	641,712
384,882	533,866	650,695
387,001	541,673	652,269
387,002	543,224	652,270
412,563	544,317	652,357
412,653 (?)	544,837	653,301
415,262	545,097	653,893
432,786	548,691	653,985
438,908	554,518	655,085 ✓
443,081	556,233	655,399 ✓
456,335	558,240	655,701
456,401	559,674 and add. 30,808	655,905
460,137	566,026	663,068
462,587	566,890	666,109 ✓
463,623	570,306	666,314
466,721	572,890	671,106
474,309 (?)	574,663	671,431
475,642	575,615	671,639
481,721	575,935	672,002
481,722	578,703	672,003
482,699	580,458	672,142
483,197	580,459	672,175
483,198	531,806	673,024
483,311	590,743	673,074
483,780	602,053	674,899
483,781	602,054	676,280
483,782	35,214 (add. to 609,515)	676,281
484,198	611,472	677,370
484,712	613,492	
485,392	620,303	