

Symbol	Typ	Titel
C	Sektion	CHEMISTRY; METALLURGY
C22	Klasse	METALLURGY; FERROUS OR NON-FERROUS ALLOYS; TREATMENT OF ALLOYS OR NON-FERROUS METALS
C22B	Unterklasse	PRODUCTION OR REFINING OF METALS (making metallic powder or suspensions thereof B22F 9/00; production of metals by electrolysis or electrophoresis C25); PRETREATMENT OF RAW MATERIALS
C22B 1/00	Hauptgruppe	Preliminary treatment of ores or scrap [1, 2006.01]
C22B 1/02	1-Punkt Untergruppe	. Roasting processes (C22B 1/16 takes precedence) [1, 2006.01]
C22B 1/04	2-Punkt Untergruppe	.. Blast roasting [1, 2006.01]
C22B 1/06	2-Punkt Untergruppe	.. Sulfating roasting [1, 2006.01]
C22B 1/08	2-Punkt Untergruppe	.. Chloridising roasting [1, 2006.01]
C22B 1/10	2-Punkt Untergruppe	.. in fluidised form [1, 2006.01]
C22B 1/11	1-Punkt Untergruppe	. Removing sulfur, phosphorus or arsenic, other than by roasting [2, 2006.01]
C22B 1/14	1-Punkt Untergruppe	. Agglomerating; Briquetting; Binding; Granulating [1, 2006.01]
C22B 1/16	2-Punkt Untergruppe	.. Sintering; Agglomerating [1, 2006.01]
C22B 1/18	3-Punkt Untergruppe	... in sinter pots [1, 2006.01]
C22B 1/20	3-Punkt Untergruppe	... in sintering machines with movable grates [1, 2006.01]
C22B 1/212	3-Punkt Untergruppe	... in tunnel furnaces [2, 2006.01]
C22B 1/214	3-Punkt Untergruppe	... in shaft furnaces [2, 2006.01]
C22B 1/216	3-Punkt Untergruppe	... in rotary furnaces [2, 2006.01]
C22B 1/22	3-Punkt Untergruppe	... in other sintering apparatus [1, 2006.01]
C22B 1/24	2-Punkt Untergruppe	.. Binding; Briquetting [1, 2006.01]
C22B 1/242	3-Punkt Untergruppe	... with binders [2, 2006.01]
C22B 1/243	4-Punkt Untergruppe inorganic [2, 2006.01]
C22B 1/244	4-Punkt Untergruppe organic [2, 2006.01]
C22B 1/245	5-Punkt Untergruppe with carbonaceous material for the production of coked agglomerates [2, 2006.01]
C22B 1/248	3-Punkt Untergruppe	... of metal scrap or alloys [2, 2006.01]
C22B 1/26	1-Punkt Untergruppe	. Cooling of roasted, sintered, or agglomerated ores [1, 2006.01]
C22B 3/00	Hauptgruppe	Extraction of metal compounds from ores or concentrates by wet processes [1, 5, 2006.01]
C22B 3/02	1-Punkt Untergruppe	. Apparatus therefor [1, 2006.01]
C22B 3/04	1-Punkt Untergruppe	. by leaching (C22B 3/18 takes precedence) [5, 2006.01]
C22B 3/06	2-Punkt Untergruppe	.. in inorganic acid solutions [5, 2006.01]
C22B 3/08	3-Punkt Untergruppe	... Sulfuric acid [5, 2006.01]
C22B 3/10	3-Punkt Untergruppe	... Hydrochloric acid [5, 2006.01]

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C22B 3/12	2-Punkt Untergruppe	... in inorganic alkaline solutions [5, 2006.01]
C22B 3/14	3-Punkt Untergruppe	... containing ammonia or ammonium salts [5, 2006.01]
C22B 3/16	2-Punkt Untergruppe	... in organic solutions [5, 2006.01]
C22B 3/18	1-Punkt Untergruppe	. with the aid of microorganisms or enzymes, e.g. bacteria or algae [5, 2006.01]
C22B 3/20	1-Punkt Untergruppe	. Treatment or purification of solutions, e.g. obtained by leaching (C22B 3/18 takes precedence) [5, 2006.01]
C22B 3/22	2-Punkt Untergruppe	... by physical processes, e.g. by filtration, by magnetic means (C22B 3/26 takes precedence) [5, 2006.01]
C22B 3/24	3-Punkt Untergruppe	... by adsorption on solid substances, e.g. by extraction with solid resins [5, 2006.01]
C22B 3/26	2-Punkt Untergruppe	... by liquid-liquid extraction using organic compounds [5, 2006.01]
C22B 3/28	3-Punkt Untergruppe	... Amines [5, 2006.01]
C22B 3/30	3-Punkt Untergruppe	... Oximes [5, 2006.01]
C22B 3/32	3-Punkt Untergruppe	... Carboxylic acids [5, 2006.01]
C22B 3/34	3-Punkt Untergruppe	... containing sulfur [5, 2006.01]
C22B 3/36	3-Punkt Untergruppe	... Heterocyclic compounds (C22B 3/34 takes precedence) [5, 2006.01]
C22B 3/38	3-Punkt Untergruppe	... containing phosphorus [5, 2006.01]
C22B 3/40	3-Punkt Untergruppe	... Mixtures [5, 2006.01]
C22B 3/42	2-Punkt Untergruppe	... by ion-exchange extraction [5, 2006.01]
C22B 3/44	2-Punkt Untergruppe	... by chemical processes (C22B 3/26, C22B 3/42 take precedence) [5, 2006.01]
C22B 3/46	3-Punkt Untergruppe	... by substitution, e.g. by cementation [5, 2006.01]
C22B 4/00	Hauptgruppe	Electrothermal treatment of ores or metallurgical products for obtaining metals or alloys (general methods of refining or remelting metals C22B 9/00; obtaining iron or steel C21B, C21C) [2, 2006.01]
C22B 4/02	1-Punkt Untergruppe	. Light metals [2, 2006.01]
C22B 4/04	1-Punkt Untergruppe	. Heavy metals [2, 2006.01]
C22B 4/06	1-Punkt Untergruppe	. Alloys [2, 2006.01]
C22B 4/08	1-Punkt Untergruppe	. Apparatus [2, 2006.01]
C22B 5/00	Hauptgruppe	General processes of reducing to metals [1, 2006.01]
C22B 5/02	1-Punkt Untergruppe	. Dry processes [1, 2006.01]
C22B 5/04	2-Punkt Untergruppe	... by aluminium, other metals, or silicon [1, 2006.01]
C22B 5/06	2-Punkt Untergruppe	... by carbides or the like [1, 2006.01]
C22B 5/08	2-Punkt Untergruppe	... by sulfides; Roasting reaction processes [1, 2006.01]
C22B 5/10	2-Punkt Untergruppe	... by solid carbonaceous reducing agents [1, 2006.01]
C22B 5/12	2-Punkt Untergruppe	... by gases [1, 2006.01]
C22B 5/14	3-Punkt Untergruppe	... fluidised material [1, 2006.01]
C22B 5/16	2-Punkt Untergruppe	... with volatilisation or condensation of the metal being produced [1, 2006.01]

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C22B 5/18	2-Punkt Untergruppe	... Reducing step-by-step [1, 2006.01]
C22B 5/20	2-Punkt Untergruppe	... from metal carbonyls [1, 2006.01]
C22B 7/00	Hauptgruppe	Working-up raw materials other than ores, e.g. scrap, to produce non-ferrous metals or compounds thereof [1, 2006.01]
C22B 7/02	1-Punkt Untergruppe	. Working-up flue dust [1, 2006.01]
C22B 7/04	1-Punkt Untergruppe	. Working-up slag [1, 2006.01]
C22B 9/00	Hauptgruppe	General processes of refining or remelting of metals; Apparatus for electroslag or arc remelting of metals [1, 2006.01]
C22B 9/02	1-Punkt Untergruppe	. Refining by liquating, filtering, centrifuging, distilling or supersonic wave action [1, 2006.01]
C22B 9/04	1-Punkt Untergruppe	. Refining by applying a vacuum [1, 3, 2006.01]
C22B 9/05	1-Punkt Untergruppe	. Refining by treating with gases, e.g. gas flushing [3, 2006.01]
C22B 9/10	1-Punkt Untergruppe	. with refining or fluxing agents; Use of materials therefor (C22B 9/18 takes precedence) [1, 3, 2006.01]
C22B 9/14	1-Punkt Untergruppe	. Refining in the solid state [1, 2006.01]
C22B 9/16	1-Punkt Untergruppe	. Remelting metals (liquating C22B 9/02) [3, 2006.01]
C22B 9/18	2-Punkt Untergruppe	... Electroslag remelting [3, 2006.01]
C22B 9/187	3-Punkt Untergruppe	... Apparatus therefor, e.g. furnaces [5, 2006.01]
C22B 9/193	4-Punkt Untergruppe Moulds, bottom plates or starter plates [5, 2006.01]
C22B 9/20	2-Punkt Untergruppe	... Arc remelting [3, 2006.01]
C22B 9/21	3-Punkt Untergruppe	... Apparatus therefor [5, 2006.01]
C22B 9/22	2-Punkt Untergruppe	... with heating by wave energy or particle radiation [3, 2006.01]
C22B 11/00	Hauptgruppe	Obtaining noble metals [1, 2006.01]
C22B 11/02	1-Punkt Untergruppe	. by dry processes [1, 2006.01]
C22B 11/06	1-Punkt Untergruppe	. Chloridising [1, 2006.01]
C22B 11/08	1-Punkt Untergruppe	. by cyaniding [1, 2006.01]
C22B 11/10	1-Punkt Untergruppe	. by amalgamating [1, 2006.01]
C22B 11/12	2-Punkt Untergruppe	... Apparatus therefor [1, 2006.01]
C22B 13/00	Hauptgruppe	Obtaining lead [1, 2006.01]
C22B 13/02	1-Punkt Untergruppe	. by dry processes [1, 2006.01]
C22B 13/06	1-Punkt Untergruppe	. Refining [1, 2006.01]
C22B 13/08	2-Punkt Untergruppe	... Separating metals from lead by precipitating, e.g. by Parkes process [1, 2006.01]
C22B 13/10	2-Punkt Untergruppe	... Separating metals from lead by crystallising, e.g. by Pattison process [1, 2006.01]
C22B 15/00	Hauptgruppe	Obtaining copper [1, 2006.01]
C22B 15/02	1-Punkt Untergruppe	. in blast furnaces [1, 2006.01]
C22B 15/04	1-Punkt Untergruppe	. in reverberatory furnaces [1, 2006.01]
C22B 15/06	1-Punkt Untergruppe	. in converters [1, 2006.01]

Symbol	Typ	Titel
C22B 15/14	1-Punkt Untergruppe	. Refining [1, 2006.01]
C22B 17/00	Hauptgruppe	Obtaining cadmium [1, 2006.01]
C22B 17/02	1-Punkt Untergruppe	. by dry processes [1, 2006.01]
C22B 17/06	1-Punkt Untergruppe	. Refining [1, 2006.01]
C22B 19/00	Hauptgruppe	Obtaining zinc or zinc oxide [1, 2006.01]
C22B 19/02	1-Punkt Untergruppe	. Preliminary treatment of ores; Preliminary refining of zinc oxide [1, 2006.01]
C22B 19/04	1-Punkt Untergruppe	. Obtaining zinc by distilling [1, 2006.01]
C22B 19/06	2-Punkt Untergruppe	.. in muffle furnaces [1, 2006.01]
C22B 19/08	2-Punkt Untergruppe	.. in blast furnaces [1, 2006.01]
C22B 19/10	2-Punkt Untergruppe	.. in reverberatory furnaces [1, 2006.01]
C22B 19/12	2-Punkt Untergruppe	.. in crucible furnaces [1, 2006.01]
C22B 19/14	2-Punkt Untergruppe	.. in vertical retorts [1, 2006.01]
C22B 19/16	2-Punkt Untergruppe	.. Distilling vessels [1, 2006.01]
C22B 19/18	3-Punkt Untergruppe	... Condensers; Receiving vessels [1, 2006.01]
C22B 19/20	1-Punkt Untergruppe	. Obtaining zinc otherwise than by distilling [1, 2006.01]
C22B 19/28	1-Punkt Untergruppe	. from muffle furnace residues [1, 2006.01]
C22B 19/30	1-Punkt Untergruppe	. from metallic residues or scraps [1, 2006.01]
C22B 19/32	1-Punkt Untergruppe	. Refining zinc [1, 2006.01]
C22B 19/34	1-Punkt Untergruppe	. Obtaining zinc oxide (purifying zinc oxide C01G 9/02) [1, 2006.01]
C22B 19/36	2-Punkt Untergruppe	.. in blast or reverberatory furnaces [1, 2006.01]
C22B 19/38	2-Punkt Untergruppe	.. in rotary furnaces [1, 2006.01]
C22B 21/00	Hauptgruppe	Obtaining aluminium [1, 2006.01]
C22B 21/02	1-Punkt Untergruppe	. with reducing [1, 2006.01]
C22B 21/04	1-Punkt Untergruppe	. with alkali metals [1, 2006.01]
C22B 21/06	1-Punkt Untergruppe	. Refining [1, 2006.01]
C22B 23/00	Hauptgruppe	Obtaining nickel or cobalt [1, 2006.01]
C22B 23/02	1-Punkt Untergruppe	. by dry processes [1, 2006.01]
C22B 23/06	1-Punkt Untergruppe	. Refining [1, 2006.01]
C22B 25/00	Hauptgruppe	Obtaining tin [1, 2006.01]
C22B 25/02	1-Punkt Untergruppe	. by dry processes [1, 2006.01]
C22B 25/06	1-Punkt Untergruppe	. from scrap, especially tin scrap (by electrolytic process C25C 1/14) [1, 2006.01]
C22B 25/08	1-Punkt Untergruppe	. Refining [1, 2006.01]
C22B 26/00	Hauptgruppe	Obtaining alkali, alkaline earth metals or magnesium [2, 2006.01]
C22B 26/10	1-Punkt Untergruppe	. Obtaining alkali metals [2, 2006.01]

Symbol	Typ	Titel
C22B 26/12	2-Punkt Untergruppe	... Obtaining lithium [2, 2006.01]
C22B 26/20	1-Punkt Untergruppe	. Obtaining alkaline earth metals or magnesium [2, 2006.01]
C22B 26/22	2-Punkt Untergruppe	... Obtaining magnesium [2, 2006.01]
C22B 30/00	Hauptgruppe	Obtaining antimony, arsenic or bismuth [2, 2006.01]
C22B 30/02	1-Punkt Untergruppe	. Obtaining antimony [2, 2006.01]
C22B 30/04	1-Punkt Untergruppe	. Obtaining arsenic [2, 2006.01]
C22B 30/06	1-Punkt Untergruppe	. Obtaining bismuth [2, 2006.01]
C22B 34/00	Hauptgruppe	Obtaining refractory metals [2, 2006.01]
C22B 34/10	1-Punkt Untergruppe	. Obtaining titanium, zirconium or hafnium [2, 2006.01]
C22B 34/12	2-Punkt Untergruppe	... Obtaining titanium [2, 2006.01]
C22B 34/14	2-Punkt Untergruppe	... Obtaining zirconium or hafnium [2, 2006.01]
C22B 34/20	1-Punkt Untergruppe	. Obtaining niobium, tantalum or vanadium [2, 2006.01]
C22B 34/22	2-Punkt Untergruppe	... Obtaining vanadium [2, 2006.01]
C22B 34/24	2-Punkt Untergruppe	... Obtaining niobium or tantalum [2, 2006.01]
C22B 34/30	1-Punkt Untergruppe	. Obtaining chromium, molybdenum or tungsten [2, 2006.01]
C22B 34/32	2-Punkt Untergruppe	... Obtaining chromium [2, 2006.01]
C22B 34/34	2-Punkt Untergruppe	... Obtaining molybdenum [2, 2006.01]
C22B 34/36	2-Punkt Untergruppe	... Obtaining tungsten [2, 2006.01]
C22B 35/00	Hauptgruppe	Obtaining beryllium [1, 2006.01]
C22B 41/00	Hauptgruppe	Obtaining germanium [1, 2006.01]
C22B 43/00	Hauptgruppe	Obtaining mercury [1, 2006.01]
C22B 47/00	Hauptgruppe	Obtaining manganese [1, 2006.01]
C22B 58/00	Hauptgruppe	Obtaining gallium or indium [2, 2006.01]
C22B 59/00	Hauptgruppe	Obtaining rare earth metals [1, 2006.01]
C22B 60/00	Hauptgruppe	Obtaining metals of atomic number 87 or higher, i.e. radioactive metals [2, 2006.01]
C22B 60/02	1-Punkt Untergruppe	. Obtaining thorium, uranium or other actinides [2, 2006.01]
C22B 60/04	2-Punkt Untergruppe	... Obtaining plutonium [2, 2006.01]
C22B 61/00	Hauptgruppe	Obtaining metals not elsewhere provided for in this subclass (iron C21) [1, 2, 2006.01]