

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

CLASSIFICATION ORDER 1901

NOVEMBER 2, 2010

PROJECT C7335

**The following classification changes will be effected by this order:**

	<u>Class</u>	<u>Subclass</u>	<u>Art Unit</u>	<u>Ex'r Search Room</u>
<b>Abolished:</b>	422	55-61, 99-104, 188-197	1797	0S0001
<b>Established:</b>	422	400-430, 500-570, 600-659	1797	0S0001

**The following classes are also impacted by this order:**

48, 53, 73, 196, 204, 206, 208, 252, 356, 424, 427, 431,435, 436, 454, 502, 506, 530, 606

**This order includes the following:**

- A. CLASSIFICATION MANUAL CHANGES
- B. LISTING OF PRINCIPAL SOURCE OF ESTABLISHED AND DISPOSITION OF ABOLISHED SUBCLASSES
- C. CHANGES TO THE USPC-TO-IPC CONCORDANCE
- D. DEFINITION CHANGES AND NEW OR ADDITIONAL DEFINITIONS

CLASSIFICATION ORDER 1901

NOVEMBER 02, 2010

PROJECT C7335

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1	<b>PROCESS DISINFECTING, PRESERVING, DEODORIZING, OR STERILIZING</b>	26	.Using direct contact steam to disinfect or sterilize
2	.Step of warning or decreasing hazard of process	27	..And additional disinfecting or sterilizing agent
3	.Process control in response to analysis	28	.Using disinfecting or sterilizing substance
4	.A gas is substance acted upon	29	..In situ generation of agent other than aldehyde or glycol
5	.Deodorizing	30	..And removing the agent by chemical reaction or sorption
6	.Affecting structure, article, etc., submerged in marine environment	31	..And recovering or reusing the agent
7	.Maintaining environment nondestructive to metal	32	..Treating bulk material
8	..Using protective article (e.g., antitarnish fabric, etc.)	33	..With positive pressure or vacuum
9	..Using gaseous preservative, preservative added to gaseous phase of environment, or maintaining gaseous phase nondestructive	34	..Using alkylene oxide
		35	..Using cyanide
		36	..Using aldehyde
		37	..Using halogen or halogen- containing compound
10	..Manipulating gaseous environment for preservative purpose	38	.Using fluent heat transfer medium other than air
11	...Steam environment	39	.By sudden release of pressure
12	..Aqueous acid environment (i.e., pH less than or equal to 4.1)	40	.Process of storage or protection
		41	..Of liquid
		42	...By preventing evaporation
		43	....Of water
13	..Aqueous alkali environment (i.e., pH greater than or equal to 8.4)	44	<b>BLOOD TREATING DEVICE FOR TRANSFUSIBLE BLOOD</b>
14	..Essentially pure water environment	45	.Oxygenator
15	...Using organic compound having phosphorus	46	..Including integral heat- exchange means
16	...Using organic nitrogen compound other than ammonium salt	47	..Bubble or foam producing
		48	..Membrane
17	...Using organic carboxylic acid or salt thereof	49	<b>INCLUDING MEANS FACILITATING PART REPLACEMENT OR REPAIR OTHER THAN SOLID, EXTENDED SURFACE, FLUID CONTACT MEANS</b>
18	...Using inorganic silicon or phosphorus compound	50	<b>ANALYZER, STRUCTURED INDICATOR, OR MANIPULATIVE LABORATORY DEVICE</b>
19	...Using heavy metal or compound thereof	51	.Calorimeter
20	.Using sonic or ultrasonic energy	52	.Chemiluminescent
21	.Using microwave energy	53	.Corrosion tester
22	.Using direct contact with electrical or electromagnetic radiation	54	.Flame ionization detector
		400	.Structured visual or optical indicator, per se
23	..In atmosphere other than air	401	..In a holder or container
24	..Ultraviolet	402	...Structure to facilitate analysis of the results
25	.Including additional step of preventing damage to sealed container	403	....Read by automated means
		404	.....Registration of the structure within the analyzer

405	...Tubular	73	..With coagulometer for
406	....Including a swab		agglutination, clotting, or
407	...Well plate		prothrombin, or for particle
408	...Structure for contacting the		(e.g., cell, etc.) counting,
	sample with the reagent		or volume or characteristics
409	....Envelope, packet or sleeve		determination
	(e.g., for fecal occult	74	..Dairy tester
	sample, etc.)	75	..Including titrator
410	....Lancet (e.g., for finger	76	...Conductiometric type
	prick, etc.)	77	...With integrating or
411	....Swab		differentiating means
412	....Device using capillary action	78	..Including means for pyrolysis,
413	....Device having frangible		combustion, or oxidation
	compartment	79	...Biological, chemical, or total
414	....Device having torturous path		oxygen demand (i.e., BOD, COD,
415	....Including centrifuge		TOD)
416	....Including means for	80	...And means directly analyzing
	facilitating reaction of a		evolved gas
	gaseous fluid	81	..Automated system with sample
417	....Including channel, valve or		fluid pressure transport means
	chamber	82	...And means segmenting fluid
418	....Wiping means to acquire solid		material
	test substance	82.01	..Measuring electrical property
419	....Acquisition of liquid sample	82.02	...Resistance or conductivity
420	..Having reagent in absorbent or	82.03	...Ion selective electrode
	bibulous substrate	82.04	....Dissolved gas
421	...Plural layers	82.05	..Measuring optical property by
422	....Filtering		using ultraviolet, infrared,
423	....Spreading		or visible light
424	....Support layer	82.06	...Optode or optrode
425	..Having coated reagent	82.07	....Fluorescence
426	...Plural layers	82.08	...Fluorescence
427	....Filtering layer	82.09	...Absorbance or transmittance
428	....Spreading layer	82.11	...Waveguides
429	....Support layer	82.12	..Measuring temperature
430	.Test package or kit	82.13	..Measuring pressure
62	.Automatic analytical monitor and	83	.Means for analyzing gas sample
	control of industrial process	84	..Breath tester
63	.Sample mechanical transport	85	...Based on color change
	means in or for automated	86	..Including means reacting gas
	analytical system		with color indicator
64	..Means is turntable (circular)	87	...Strip indicator
65	..Means is conveyor and rack	88	..Including means for adsorbing
66	..Means is moving tape or band		or absorbing gas into or onto
67	..With specific analytical		liquid or solid media
	program control means	89	...Gas chromatography
68.1	.Means for analyzing liquid or	90	...With conductiometric detector
	solid sample	91	...With photometric detector
69	..Sorption testing	92	...With volumetric detector
70	...Liquid chromatography		
71	...With radioactive material		
72	..Including centrifuge		

93	..Including means dividing sample stream into plural parallel segments having diverse treating means and the analytical result compared or combined	529	....Operated at ambient temperature
		530	....Heated
		531	...Condenser
		532	....Cooling means
		533	...Gravity or centrifuge separation
94	..Combustible gas detector		...Filter
95	..With thermoelectric detector	534	....Porous media
96	....Wheatstone bridge	535	..Tissue processing device
97	.....With specific coating on bridge element	536	..Valve
		537	...Including connector
98	..Analysis based on electrical measurement	538	...With multiple discrete settings
		539	...Stator and rotor, petcock/ stopcock, or slider
500	..Miscellaneous laboratory apparatus and elements, per se	540	...Check
501	..Volumetric fluid transfer means, e.g., pipette, pipettor, etc.)	541	...Ball or seat
		542	...Gas
502	...Micro-fluidic device	543	..Connector
503	....Plate design or structure	544	...Terminal end threaded or tapered
504	....Liquid moving means	545	...For needle, syringe, or capillary tube
505	.....Pump		..Container
506	.....Centrifugal force	546	...Used with centrifuge equipment
507	.....Capillary action		...Tube shaped vessel
508	....Spray tip	547	....Including closure or sealing mechanism
509	...Automated system	548	...Plate, sheet, dish or tray
510	....Including washing means	549	....Including a plurality of wells or receptacles
511	....Including tip attachment or removal	550	.....Microtitration plate
		551	...Cartridge, cassette or cuvette
512	...Including seal penetration means	552	...Bag type containers
		553	...Flask, bottle or beaker
513	...Including filter	554	...Cup or crucible
514	...Mixing of diverse substances within pipette	555	...Vial or ampoule
		556	...Including multiple internal compartments or baffles
515	...Sequential multidispensing from a single tip	557	..Holder
		558	...For sample or specimen container
516	...Variable volume	559	....For tube
517	....Including liquid level sensor	560	....For slide
518	.....Electrically operated	561	....For burette, pipette, or pipette tip
519	...Interaction of dispensing tip with surface upon which fluid is dispensed	562	..Housing
		563	..Support
520	...Drawing of liquid into pipette by capillary action	564	..Hood
		565	..Stopper, cover, plug, or seal
521	...Dispensing means	566	...Covering multiple containers or wells
522	....Pressure	567	
523	....Gravity	568	
524	...Tip	569	
525	....Removable		
526	.....Including storage rack therefore		
527	...Including means for separating a constituent (e.g., extraction, etc.)		
528	...Evaporator		

570	...Penetrable cover (e.g., septum, etc.)	128	.Including supersonic or ultrasonic energy generation means
105	<b>CONTROL ELEMENT RESPONSIVE TO A SENSED OPERATING CONDITION</b>	129	<b>CHEMICAL REACTOR</b>
106	.Responsive to liquid level	129.1	.Soap making
107	.Control element directly mechanically linked to separate sensor	130	.Bench scale
108	.Control element responds proportionally to a variable signal from a sensor	131	.Organic polymerization
109	..Controls heat transfer	132	..Closed loop
110	..Controls flow rate of a material to or from a contact zone	133	..Generating foamed plastic
111	...Material is an input to contact zone	134	..Including plural sequential reaction stages
112	.Control element is fluid pressure sensitive	135	..Including reactant agitating means in reaction chamber
113	..Pressure-relief valve (e.g., pop-off valve) or check valve	136	...And means rotatably mounting reaction chamber
114	.Control element is a binary responsive valve	137	...Horizontal reaction chamber with screw or worm agitator
115	..Valve diverts flow from a contact zone	138	..With heat exchanger for reaction chamber or reactants located therein
116	.Sensed condition is operating time and control is operation sequencer	139	.Fluidized bed
117	<b>WITH SAFETY FEATURE</b>	140	..With liquid present
118	.Preventing opening of closure of pressurized apparatus at unsafe pressure	141	..Plural reaction beds
119	<b>WITH INDICATING, SIGNALLING, RECORDING, SAMPLING, OR INSPECTION MEANS</b>	142	...Sequentially arranged
120	<b>FOR DEODORIZING OF, OR CHEMICAL PURIFICATION OF, OR GENERATION OF, LIFE-SUSTAINING ENVIRONMENTAL GAS</b>	143	..Including specific wind box or particulate matter support grid
121	.With means exposing gas to electromagnetic wave energy or corpuscular radiation	144	..Including means to strip reaction mass from, or to regenerate, the particulate matter (including fluidized bed regenerators, per se)
122	.Including solid, extended surface, fluid contact reaction means (e.g., Raschig rings, particulate or monolithic catalyst, etc.)	145	..And means providing flow of particulate matter into or out of reaction chamber
123	.Including means adding material into environmental gas	146	..With heat exchange means affecting reaction chamber or reactants located therein
124	..And mechanical means creating forced draft at addition site	147	..And means mechanically separating and removing particulate bed material from fluid effluent
125	..With material-heating means	148	.Ammonia synthesizer
126	..Material is combusted	149	.With means simultaneously carrying out conjugated reactions within single reactor
127	<b>SHOCK OR SOUND WAVE</b>	150	.Pigment or carbon black producer
		151	..With means injecting quench stream into reaction chamber downstream of reaction site
		152	..With particulate product collecting surface and means mechanically removing product therefrom

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 PRESERVING, OR STERILIZING

153	...Moving collecting surface	178	...And contact regenerating means or means for cleaning an internal surface of the reaction chamber
154	....Rotary collecting surface		
155	.....Disk or plate		
156	..With plural sequential reaction zones or chambers	179	...Fixed bed with resilient or differential thermal expansion compensating bed support means
157	...With movably or removably mounted plug means for converting reactor from (N) to (N+1) reaction stages	180	...Unitary (i.e., nonparticulate) contact bed (e.g., monolithic catalyst bed, etc.)
158	..Vapor phase reaction type	181	...Fixed annularly shaped bed of contact material and means directing gas therethrough substantially perpendicular to longitudinal axis of bed
159	..For radioactive reactant or product	182	..Including means injecting combustion fuel into reaction chamber in direct contact with waste gas
160	..Inorganic sulfur acid or anhydride producing type	183	...And means mixing combustion fuel with waste gas upstream of reaction site
161	..Acid is final product	184.1	..For chemically destroying or disintegrating solid waste, other than burning alone
162	..Inorganic hydrator	185	..For chemical recovery of chemicals from waste paper making liquor
163	..Explosives synthesizer	186	..With means applying electromagnetic wave energy or corpuscular radiation to reactants for initiating or perfecting chemical reaction
164	..Solid reactant type (i.e., absence of fluid reactants)	186.01	..Magnetic
165	..Including ignition means for reactant	186.02	...Object protection
166	...Electrically actuated	186.03	...With electrical discharge
167	..Including reactor cooling means surrounding reactor	186.04	..Electrostatic field or electrical discharge
168	..Waste gas purifier	186.05	...Treating surface of solid substrate
169	..Including means providing sequential purification stages	186.06	...Surface is metal
170	...Plural chemical reaction stages	186.07	...Ozonizers
171	....Solid, extended surface, fluid contact type	186.08	...With preparatory or product-treating means
172	....And means downstream of a stage for injecting a reactant into waste gas for interreaction in subsequent stage	186.09	....With drying means
173	..With heat exchanger for reaction chamber or reactants located therein	186.1	....With filtering or particle removal means
174	...Electrical type	186.11	....With cooling, compression, condensation, or liquefying means
175	...Regenerative heat sink	186.12	...With subsequent use means
176	..Including waste gas flow distributor upstream of reaction site and within reaction chamber modifying velocity profile of gas	186.13	...With electrode moving means
177	..Including solid, extended surface, fluid contact reaction means; e.g., inert Raschig rings, particulate absorbent, particulate or monolithic catalyst, etc.	186.14	...With fluent reactant flow control means

186.15	....With current control or special electrical supply means	618	...Including product separation or purification means
186.16	.....With pulse generating means	619	..Combined with contact material regenerating means (e.g., regenerating catalyst, etc.)
186.18	...Cylindrical electrode	620	..Combined with recycling means (e.g., recycling products, reactants, etc.)
186.19	.....With heating or cooling means	621	...Including reaction heat recovery or recycling
186.2	...With heating or cooling means	622	...Including external recycle loop
186.21	...Arc or spark discharge means	623	..Including a boiler
186.22	...With electrode or reaction space heating or cooling means	624	..Including a mechanical means for transportation of material (e.g., conveyor, turntable, truck, etc.)
186.23	...With preparatory or product-treating means	625	..Including reformer reactor
186.24	.....With nitrogen fixation means	626	...Including water gas shift reaction
186.25	.....With cooling or pressurizing means	627	...Combined with selective or preferential oxidation reactor
186.26	....With electrode moving means	628	...Autothermal
186.27	....With current control means	629	...Steam reformer
186.28	...With current control means	630	..Discrete sequential reaction stages
186.29	...With RF input means	631	...Plural solid, extended surface, fluid contact reaction stages (e.g., inert Raschig rings, particulate sorbent, particulate or monolithic catalyst, etc.)
186.3	..With ultraviolet radiation generating means	632	...With down-flow fixed bed
187	.Combined	633	...Including a unitary, monolithic catalyst bed
600	.Including plural reaction stages	634	...With metal catalyst (e.g., metal oxide, etc.)
601	..Including plural parallel reaction stages with each stage in the form of a plate	635	...Including random inert packing (e.g., Raschig rings, balls, saddle rings, etc.)
602	..Plate-type laminated reactor	636	...At least one reaction stage formed of a fixed, annularly shaped bed of contact material
603	..Microscale reactor	637	....With means for directing reaction stream therethrough substantially perpendicular to the longitudinal axis of the bed
604	..With gas contact means for degassing or agitating (e.g., sparging, etc.)	638	...Superimposed reaction stages in single reaction chamber
605	..With draft tube	639	...Wherein at least one reaction stage is upstream or downstream of parallel stages (e.g., AA-B, etc.)
606	..With multiphase mixing means		
607	..With distributor or collection tray		
608	..With separation or purification means (e.g., rectification, evaporation, ion exchanger, extraction, settler, absorption, recrystallization, etc.)		
609	...Stripper tower		
610	...Distillation means (e.g., retort, etc.)		
611	...Scrubbing		
612	...Absorption		
613	...Cyclone separator		
614	...Condenser		
615	....Condenser downstream of a heat exchanging means		
616	...Filtering means		
617	....Membrane separation (e.g., palladium membrane hydrogen purifier, etc.)		



640	...With parallel repeat of a sequence of reaction stages (e.g., AB-AB, etc.)	200	..Indirect heat-exchange tube within reaction chamber with a nonreactant heat-exchange fluid passing therethrough
641	...With each stage in the form of a reaction tube	201	...Tube and shell type
642	...Wherein the reaction stages are the same	202	..Heat-exchange jacket surrounding reaction chamber
643	...Including thermal combustion means	203	...Including fluid-transfer means connecting chamber to heat-exchange jacket
644	...Reaction stages located within single reaction chamber	204	...Means associated with jacket providing combustion gas as heat-exchange medium
645	...With baffle (i.e., deflector plate)	205	...Including baffle or stirring means disposed within jacket or chamber, the baffle means within chamber connected directly to wall thereof
646	...With heating or cooling means	206	..Regenerative heat sink
647	...And means downstream of a stage for internally injecting a reactant into a reaction stream for reaction in a subsequent stage, or injecting an internal quench stream into a reaction stream passing between stages	207	..Means injecting internal quench stream into reaction stream downstream of reaction stage
648	...Means within reaction chamber for redistributing reaction stream as it passes between adjacent stages	208	..Apparatus operates at positive pressure
649	..With the provision of heating or cooling means	209	.Including means rotating reaction chamber during use
650	..Including plural parallel reaction stages with each stage in the form of a reaction tube	210	..And means wiping or scraping interior surface of reaction chamber
651	...Tubular stages in a single reaction chamber	211	.Including solid, extended surface, fluid contact reaction means; e.g., inert Raschig rings, particulate absorbent, particulate or monolithic catalyst, etc.
652	...Reaction tubes filled with catalyst particles	212	..With means removing and recovering product from extended surface contact material
653	...Reaction tubes containing structured catalyst	213	..Particulate contact material type and means providing flow of particulate material into or out of reaction chamber with reactants or products
654	...Reaction tubes having catalyst coating	214	...Transfer line type reaction chamber
655	...Individual supply of reactants for each reaction tube	215	...And internal mixing means
656	...With a solid reactant	216	..Compact bed of particulate, fluid contact material and means providing gravity flow of material within bed
657	...Operating at positive pressure	217	..And means upstream of extended surface, fluid contact means removing particulate impurities from reactant stream
658	...With tube plate (e.g., supporting plate)		
659	...With heating or cooling means		
198	.Including heat exchanger for reaction chamber or reactants located therein		
199	..Electrical type		

218	..Fixed annularly shaped bed of contact material and means directing reactant therethrough substantially perpendicular to longitudinal axis of bed	235	..And means heating or cooling loop or reaction mass located therein
219	..And means loading contact material into, or unloading contact material from, reactor or means providing internal contact material reservoir	236	..Including means separating reaction chamber into plural reactant-containing compartments and means moving reactant therebetween
220	..And reactant flow distributor upstream of contact means and within reaction chamber modifying velocity profile of reactant flow	237	..Movably mounted container-type separating means and means moving same
221	..Fixed contact bed type with resilient or differential thermal expansion compensating bed support means	238	..Solid reactant containing perforated or porous container-type separating means
222	..Unitary (i.e., nonparticulate) contact bed, (e.g., monolithic catalyst bed, etc.)	239	..Reaction chamber includes at least one perforated, porous, or semipermeable wall and is adapted for holding solid reactant
223	..With contact material regenerating means, per se, or combined with reactor	240	..Including specific material of construction
224	..Including internal mixing or stirring means	241	..Reactor liner
225	..Mechanical type stirring means	242	..Positive pressure type
226	...In positive pressure reactor	243	<b>PHYSICAL TYPE APPARATUS</b>
227	...Including a draft tube for internal recirculation	244	..Including serially disposed vaporizing heating means (sublimator) and solid material deposition means maintained at a temperature lower than said heating means (condenser)
228	...Including flow directing baffle attached directly to reaction chamber wall	245.1	..Crystallizer
229	...Longitudinally extending spiral stirring means	250.1	..Crucible-free zone refiner
230	..Thermosiphon or differential density mixing means; e.g., means internally recycling reaction mass via differential density pumping, etc.	251	..Including means separating and conveying crystals to a melting zone
231	...Gas sparger type mixing means submerged in liquid reactant	252	..Hydraulic classifier with crystallizer
232	..Including solid reactant and means charging solids into, or discharging solids from, reaction chamber	253	..Including feed compartment for introducing nutrient
233	..Having both charge and discharge means along with means conveying solids therebetween located within reaction chamber	254	..Movable crystallizer or scraping means
234	..Including external recycle loop	255	..Means separating or dissolving a material constituent
		256	..Liquid-liquid contact means
		257	...Including pulsator, adjustable plates, or plural inlets; e.g., spraying, etc.
		258	...Including rotating chamber or rotating member within chamber; e.g., mixer-settler, etc.
		259	...Having rotating member within chamber

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 PRESERVING, OR STERILIZING

260	...Including heating and cooling means	289	...And direct contact heating fluid means within separating or dissolving chamber vessel
261	..Liquid-solid contact means	290	...And indirect contact heating fluid means in separating or dissolving chamber
262	...Sulfur extraction	291	.Combined
263	...Including monolithic nonporous body of solute	292	.Apparatus for treating solid article or material with fluid chemical
264	...Including means restricting solvent contact to one end of body of solute	293	..Fluid having simultaneous diverse function
265	..Buoyant holder	294	..Including flexible or collapsible treating chamber
266	..Manual or mountable holder; e.g., soap holder, etc.	295	..Including pressure treating chamber (above ambient)
267	...Including means to remove solids from a filter	296	...Fluid pressure maintains closure or seal
268	..Conveyor support for solid material during contact; e.g., bucket, etc.	297	...And rack, support or handling means
269	...Including rotating member	298	...And vaporizer; e.g., boiler, etc.
270	....Member is container	299	....Constituting treating chamber
271	....Including internal rotating member	300	..Including rack, support or handling means
272	....Partitions divide container	301	...Apparatus closure operates means immersing article or material in liquid chemical
273	....Member conveys material into and out of container; e.g., screw propeller, etc.	302	...For treating container or covers therefor
274	...Including perforated member which is nonlinear or inclined with respect to the major axis of container	303	....Container is inverted
275	...Including parallel perforated members perpendicular to, or parallel to, major axis of container	304	....Including endless conveyor
276	..Side wall of holder perforated	305	.Including gas generating means
277	....Perforations of holder form inlet for solvent	306	.Including means for adding a material to a gas
278	...Including plural orifice inlet, or deflector adjacent inlet for solvent flow	307	.Heat treating vessel with heating means
279	....Having inlet submerged within body of a solid solute	308	..Including multiple stages
280	..Solvent vapor condenser	309	..Including comminuting, kneading, or surface-wiping means interior or vessel
281	..Means recirculating solvent	310	<b>ELEMENTS OR ADJUNCTS</b>
282	...Including bypass	311	.Bed support means (e.g., support grid or plate for supporting particulate bed of contact material, etc.)
283	...Including dip tube for inlet or outlet of fluid solvent	312	.Tube element containing extended surface contact reaction means (e.g., a tube internally coated or packed with a catalyst, etc.)
284	...Internal heater; e.g., steam coil, etc.		
285	..And heating means		
286	...Including mechanical comminuting or conveying means		
287	....Within treating vessel		
288	...Including means removing vapor from treated material		

**CROSS-REFERENCE ART COLLECTIONS**

- 900 **DECREASING POLLUTION OR ENVIRONMENTAL IMPACT**
- 901 **POLYMER DISSOLVER**
- 902 **SODIUM CHLORIDE AND POTASSIUM CHLORIDE DISSOLVER**
- 903 **RADIOACTIVE MATERIAL APPARATUS**
- 904 **NITROGEN FIXATION MEANS**
- 905 **MISCELLANEOUS LIQUID STERILIZATION MEANS**
- 906 **PLASMA OR ION GENERATION MEANS**
- 907 **CORONA OR GLOW DISCHARGE MEANS**
- 908 **CRUCIBLES [B01L 3/04]**
- 909 **CRYSTALLIZING DISHES [B01L 3/06]**
- 910 **FLASKS [B01L 3/08]**
- 911 **WASH BOTTLES [B01L 3/10]**
- 912 **GAS JARS OR CYLINDERS [B01L 3/12]**
- 913 **TEST TUBES [B01L 3/14]**
- 914 .Specific test tube, per se [B01L 3/14B]
- 915 ..With identification means, e.g., coded [B01L 3/14B2]
- 916 .Closing or opening means, e.g., corks, bungs [B01L 3/14C]
- 917 ..With identification means, e.g., coded [B01L3/14C2]
- 918 .Specially adapted for centrifugation [B01L 3/14D]
- 919 **BURETTES; PIPETTES [B01L 3/02]**
- 920 .Burettes, i.e., for withdrawing and redistributing liquids through different conduits [B01L 3/02B]
- 921 ..Plunger type [B01L 3/02B2]
- 922 .Pipettes, i.e., with only one conduit for withdrawing and redistributing liquids [B01L 3/02C]
- 923 ..Plunger pump type [B01L 3/02C3]
- 924 ...Capillary pipettes, i.e., having a very small bore [B01L 3/02C3C]
- 925 ...Having mechanical strokelength setting means, e.g., movable stops [B01L 3/02C3D]
- 926 ...Details of motor drive means [B01L 3/02C3M]
- 927 ...Having several coaxial pistons [B01L 3/02C3P]
- 928 ...Repeating pipettes, i.e. for dispensing multiple doses from a single charge [B01L 3/02C3R]
- 929 ...Supports for pipettes [B01L 3/02C3S]
- 930 .Drop counters or drop formers [B01L 3/02D]
- 931 .Interchangeable or disposable dispensing tips [B01L 3/02E]
- 932 ..Cooperating with positive ejection means [B01L 3/02E2]
- 933 ..Means for supplying or disposing of tips, e.g., racks or cassettes [B01L 3/02E4]
- 934 .Mounted within a receptacle [B01L 3/02F]
- 935 **FLUID TRANSFERRING GLASSWARE [B01L 3/00B]**
- 936 .Tubes; conduits [B01L 3/00B2]
- 937 .Joints; seals [B01L 3/00B4]
- 938 .Stopcocks; valves [B01L 3/00B6]
- 939 **CONTAINERS FOR THE PURPOSE OF RETAINING A MATERIAL TO BE ANALYZED [B01L 3/00C]**
- 940 .Made of a rigid material [B01L 3/00C2]
- 941 ..With identification means, e.g., coded [B01L 3/00C2B]
- 942 ..For multiple samples, e.g., micro-titration plate [B01L 3/00C2D]
- 943 ...Specially adapted for heating or cooling samples [B01L 3/00C2D2]
- 944 .Made of a flexible material [B01L 3/00C4]
- 945 ..With identification means, e.g., coded [B01L 3/00C4B]
- 946 .With fluid transport, e.g., multi-compartment structure [B01L 3/00C6]
- 947 ..Using capillary action, including fluid transfer through absorbent matrix [B01L 3/00C6C]
- 948 ..For multiple samples, e.g., multi-well filtration [B01L 3/00C6D]

**FOREIGN ART COLLECTIONS**FOR 000 **CLASS-RELATED FOREIGN DOCUMENTS**

Any foreign patents or nonpatent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or nonpatent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

**ANALYZER, STRUCTURED INDICATOR,  
 OR MANIPULATIVE LABORATORY  
 DEVICE (422/50)**

- FOR 100 .Structured visual or optical indicator, per se (422/55)
- FOR 101 ..Having reagent in absorbent or bibulous substrate (422/56)
- FOR 102 ..Having coated reagent (422/57)
- FOR 103 ..In holder or container having special form (422/58)
- FOR 104 ...Column (422/59)
- FOR 105 ...Having plural-layered material (422/60)
- FOR 106 .Test package or kit (422/61)
- FOR 107 .Miscellaneous laboratory apparatus and elements, per se (422/99)
- FOR 108 ..Pipette or other volumetric fluid transfer means (422/100)
- FOR 109 ..Including means for separating a constituent; e.g., filter, condenser, extractor, etc. (422/101)
- FOR 110 ..Container (422/102)
- FOR 111 ..Valve or connector structure (422/103)
- FOR 112 ..Holder, support, housing, or hood (422/104)

**CHEMICAL REACTOR (422/112)**

- FOR 113 .Including plural reaction stages (422/188)
- FOR 114 ..And means providing discrete sequential reaction stages; e.g., train, etc. (422/189)
- FOR 115 ...Plural solid, extended surface, fluid contact reaction stages each containing; e.g., inert Raschig rings, particulate sorbent, particulate or monolithic catalyst, etc. (422/190)
- FOR 116 ...Superimposed reaction stages in single reaction chamber (422/191)

- FOR 117 ....At least one reaction stage formed of fixed, annularly shaped bed of contact material and means directing reaction stream therethrough substantially perpendicular to longitudinal axis of bed (422/192)
- FOR 118 ...Reaction stages located within single reaction chamber (422/193)
- FOR 119 ....And means downstream of a stage for internally injecting a reactant into a reaction stream for interreaction in a subsequent stage, or injecting an internal quench stream into reaction stream passing between stages (422/194)
- FOR 120 ...Means within reaction chamber redistributing reaction stream as it passes between adjacent stages (422/195)
- FOR 121 ..Including plural parallel reaction stages with each stage in form of a reaction tube (422/196)
- FOR 122 ...Tubular stages in single reaction chamber (422/197)

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
106/31.17	1	422/56	439
116/200	2	422/56	439
117/202	1	422/101	343
137/9	1	422/103	111
15/320	1	422/104	267
156/322	1	422/101	343
156/60	1	422/56	439
159/44	1	422/100	767
159/6.1	1	422/104	267
202/158	1	422/191	206
203/49	1	422/188	108
204/601	1	422/100	767
	1	422/102	727
204/612	1	422/101	343
204/613	1	422/100	767
204/616	1	422/56	439
206/561	1	422/104	267
210/198.2	1	422/101	343
210/222	1	422/102	727
210/321.71	1	422/103	111
210/359	1	422/58	400
216/108	1	422/55	70
219/413	1	422/58	400
221/264	1	422/100	767
222/1	1	422/100	767
235/435	1	422/104	267
235/486	1	422/104	267
241/22	1	422/58	400
250/284	2	422/100	767
250/303	1	422/61	239
250/440.11	1	422/104	267
250/483.1	1	422/56	439
252/408.1	1	422/56	439
34/218	1	422/104	267
346/80	1	422/102	727
356/246	1	422/100	767
	1	422/58	400
	13	422/102	727
356/39	1	422/58	400
356/409	1	422/58	400
356/410	1	422/58	400
359/398	1	422/100	767
366/209	2	422/101	343

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366/220	1	422/102	727
366/336	1	422/102	727
368/179	1	422/102	727
374/55	1	422/102	727
378/51	1	422/104	267
378/86	1	422/104	267
422/106	1	422/189	290
	1	422/194	67
422/108	1	422/189	290
	1	422/196	27
	1	422/197	184
422/109	1	422/104	267
	1	422/194	67
422/111	1	422/189	290
422/119	1	422/102	727
422/129	1	422/189	290
	2	422/102	727
422/130	3	422/102	727
	4	422/100	767
422/139	1	422/193	109
	1	422/196	27
422/140	1	422/190	169
	1	422/192	28
	2	422/189	290
422/142	1	422/188	108
422/145	1	422/196	27
422/159	1	422/101	343
	1	422/102	727
422/168	1	422/188	108
422/184.1	1	422/189	290
422/186	1	422/189	290
422/199	2	422/188	108
422/200	1	422/189	290
422/202	3	422/189	290
422/218	1	422/101	343
	1	422/190	169
422/220	1	422/193	109
422/224	1	422/189	290
	1	422/193	109
422/225	1	422/188	108
	1	422/193	109
422/226	1	422/189	290
422/233	1	422/189	290

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
422/241	1	422/102	727
	1	422/189	290
422/242	2	422/102	727
422/255	3	422/188	108
422/26	1	422/99	247
422/261	1	422/99	247
422/278	1	422/188	108
422/28	1	422/61	239
422/288	1	422/197	184
422/292	1	422/189	290
422/295	1	422/102	727
422/307	1	422/102	727
422/38	1	422/61	239
422/400	2	422/104	267
	3	422/57	123
	4	422/101	343
	4	422/99	247
	5	422/61	239
	8	422/55	70
	9	422/100	767
	9	422/58	400
	11	422/102	727
	20	422/56	439
422/401	1	422/101	343
	1	422/104	267
	3	422/102	727
	3	422/60	15
	5	422/59	25
	6	422/55	70
	8	422/57	123
	14	422/61	239
	29	422/56	439
	81	422/58	400
422/402	3	422/56	439
	5	422/55	70
	5	422/57	123
	5	422/58	400
	5	422/61	239
422/403	1	422/102	727
	1	422/55	70
	1	422/57	123
	3	422/61	239
	4	422/56	439



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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	6	422/58	400
422/404	1	422/104	267
	1	422/189	290
	2	422/100	767
	3	422/102	727
	4	422/61	239
	9	422/57	123
	12	422/56	439
	15	422/55	70
	17	422/58	400
422/405	1	422/57	123
	1	422/58	400
	2	422/56	439
	2	422/59	25
422/407	1	422/57	123
	2	422/56	439
	2	422/61	239
422/408	3	422/55	70
	3	422/59	25
	5	422/61	239
	10	422/57	123
	25	422/56	439
	36	422/58	400
422/409	1	422/56	439
	1	422/58	400
	2	422/61	239
	4	422/58	400
422/410	1	422/102	727
	1	422/56	439
	2	422/57	123
	6	422/58	400
422/411	1	422/55	70
	1	422/57	123
	1	422/99	247
	4	422/56	439
	5	422/61	239
	14	422/58	400
422/412	1	422/100	767
	1	422/102	727
	1	422/59	25
	3	422/55	70
	3	422/57	123
	7	422/61	239

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	22	422/56	439
	38	422/58	400
422/413	1	422/103	111
	1	422/55	70
	2	422/57	123
	4	422/60	15
	6	422/56	439
	8	422/59	25
	11	422/58	400
	13	422/61	239
422/414	1	422/58	400
	2	422/56	439
	4	422/55	70
422/415	1	422/61	239
	2	422/55	70
	3	422/58	400
422/416	2	422/55	70
	3	422/57	123
	4	422/59	25
	5	422/61	239
	6	422/60	15
	9	422/56	439
	15	422/58	400
422/417	1	422/104	267
	1	422/55	70
	1	422/59	25
	1	422/60	15
	1	422/99	247
	3	422/101	343
	4	422/100	767
	6	422/102	727
	7	422/57	123
	8	422/56	439
	10	422/61	239
	59	422/58	400
422/418	1	422/58	400
422/419	1	422/100	767
	9	422/58	400
422/42	1	422/102	727
422/420	1	422/58	400
	1	422/60	15
	1	422/61	239
	2	422/55	70

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	2	422/58	400
	3	422/57	123
	92	422/56	439
422/421	1	422/101	343
	1	422/58	400
	1	422/61	239
	2	422/57	123
	5	422/58	400
	42	422/56	439
422/422	1	422/101	343
	1	422/57	123
	1	422/59	25
	2	422/55	70
	2	422/56	439
	2	422/58	400
	3	422/100	767
	24	422/56	439
422/423	1	422/55	70
	1	422/56	439
	1	422/57	123
	1	422/57	123
	1	422/58	400
	2	422/58	400
	35	422/56	439
422/424	1	422/100	767
	1	422/190	169
	1	422/58	400
	1	422/61	239
	2	422/55	70
	3	422/57	123
	40	422/56	439
422/425	1	422/56	439
	1	422/58	400
	2	422/55	70
	2	422/61	239
	6	422/56	439
	13	422/57	123
422/426	1	422/55	70
	2	422/58	400
	4	422/56	439
	10	422/57	123
422/427	1	422/100	767
	1	422/56	439

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	1	422/57	123
422/428	4	422/56	439
	7	422/57	123
422/429	1	422/58	400
	1	422/61	239
	10	422/56	439
	11	422/57	123
422/430	1	422/100	767
	1	422/104	267
	1	422/56	439
	2	422/102	727
	2	422/99	247
	4	422/101	343
	5	422/58	400
	130	422/61	239
422/44	1	422/101	343
	2	422/99	247
422/500	1	422/101	343
	1	422/58	400
	2	422/104	267
	4	422/100	767
	17	422/99	247
422/501	1	422/101	343
	2	422/104	267
	2	422/57	123
	5	422/102	727
	6	422/99	247
	7	422/103	111
	85	422/100	767
422/502	1	422/190	169
	1	422/57	123
	2	422/58	400
	2	422/99	247
	3	422/103	111
	6	422/101	343
	7	422/102	727
	37	422/100	767
422/503	1	422/101	343
	1	422/103	111
	1	422/104	267
	1	422/196	27
	1	422/58	400
	3	422/101	343

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	8	422/99	247
	10	422/102	727
	45	422/100	767
422/504	1	422/101	343
	1	422/190	169
	2	422/188	108
	2	422/55	70
	2	422/56	439
	2	422/99	247
	3	422/103	111
	3	422/104	267
	4	422/57	123
	5	422/58	400
	7	422/101	343
	11	422/102	727
	75	422/100	767
422/505	5	422/102	727
	15	422/100	767
422/506	1	422/101	343
	1	422/101	343
	1	422/58	400
	7	422/100	767
422/507	11	422/100	767
422/508	5	422/100	767
422/509	1	422/104	267
	2	422/100	767
	2	422/102	727
	2	422/99	247
	63	422/100	767
422/510	1	422/101	343
	1	422/102	727
	3	422/104	267
	44	422/100	767
422/511	1	422/104	267
	20	422/100	767
422/512	1	422/103	111
	14	422/100	767
422/513	1	422/102	727
	1	422/99	247
	4	422/101	343
	22	422/100	767
422/514	1	422/101	343
	1	422/99	247

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	17	422/100	767
422/515	11	422/100	767
422/516	18	422/100	767
422/517	7	422/100	767
422/518	9	422/100	767
422/519	1	422/101	343
	7	422/100	767
422/520	1	422/101	343
	19	422/100	767
422/521	1	422/102	727
	15	422/100	767
422/522	2	422/100	767
	22	422/100	767
422/523	1	422/102	727
	8	422/100	767
422/524	1	422/100	767
	3	422/100	767
422/525	1	422/101	343
	1	422/102	727
	40	422/100	767
422/526	1	422/101	343
	1	422/58	400
	15	422/100	767
422/527	1	422/102	727
	2	422/104	267
	3	422/100	767
	12	422/99	247
	15	422/102	727
	34	422/101	343
422/528	1	422/100	767
	1	422/103	111
	1	422/191	206
	1	422/99	247
	2	422/101	343
422/529	1	422/100	767
	1	422/99	247
422/530	1	422/100	767
	3	422/99	247
	7	422/101	343
422/531	1	422/102	727
	1	422/61	239
	8	422/101	343
422/532	8	422/101	343

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
422/533	1	422/100	767
	3	422/102	727
	34	422/101	343
422/534	1	422/100	767
	1	422/103	111
	1	422/104	267
	1	422/58	400
	1	422/61	239
	6	422/100	767
	6	422/99	247
	17	422/102	727
	78	422/101	343
	422/535	1	422/101
1		422/103	111
2		422/100	767
3		422/99	247
4		422/102	727
46		422/101	343
422/536	1	422/100	767
	1	422/102	727
	4	422/101	343
	5	422/104	267
	14	422/99	247
	19	422/102	727
422/537	1	422/61	239
	2	422/101	343
	3	422/100	767
	3	422/102	727
	3	422/99	247
	15	422/103	111
422/538	1	422/100	767
	1	422/101	343
	1	422/99	247
	5	422/103	111
422/539	5	422/103	111
422/540	13	422/103	111
422/541	1	422/104	267
	1	422/99	247
	5	422/103	111
422/542	1	422/99	247
	3	422/103	111
422/543	1	422/103	111
	2	422/99	247

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
422/544	1	422/101	343
	1	422/99	247
	4	422/103	111
422/545	1	422/99	247
	6	422/103	111
422/546	4	422/103	111
422/547	1	422/100	767
	1	422/189	290
	1	422/56	439
	1	422/57	123
	1	422/61	239
	2	422/104	267
	3	422/100	767
	3	422/103	111
	3	422/58	400
	4	422/101	343
	28	422/99	247
	199	422/102	727
422/548	1	422/102	727
	1	422/104	267
	1	422/104	267
	1	422/99	247
	2	422/101	343
	32	422/102	727
422/549	1	422/101	343
	1	422/103	111
	3	422/100	767
	3	422/104	267
	7	422/99	247
	43	422/102	727
422/550	1	422/103	111
	1	422/104	267
	1	422/190	169
	1	422/61	239
	2	422/100	767
	3	422/101	343
	3	422/58	400
	7	422/99	247
	39	422/102	727
422/551	1	422/102	727
	4	422/99	247
	10	422/102	727
422/552	1	422/103	111



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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	1	422/55	70
	1	422/58	400
	2	422/100	767
	2	422/56	439
	3	422/104	267
	5	422/101	343
	13	422/99	247
	65	422/102	727
422/553	1	422/102	727
	1	422/104	267
	2	422/101	343
	3	422/99	247
	41	422/102	727
422/554	1	422/100	767
	1	422/101	343
	1	422/102	727
	1	422/102	727
	1	422/103	111
	1	422/99	247
422/555	1	422/61	239
	9	422/102	727
422/556	1	422/99	247
	7	422/102	727
422/557	4	422/102	727
422/560	2	422/102	727
	4	422/101	343
	7	422/99	247
	27	422/104	267
422/561	1	422/101	343
	1	422/61	239
	2	422/103	111
	2	422/58	400
	11	422/99	247
	15	422/102	727
	17	422/100	767
	45	422/104	267
422/562	1	422/56	439
	1	422/58	400
	1	422/61	239
	2	422/101	343
	2	422/99	247
	4	422/100	767
	11	422/102	727

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	61	422/104	267
422/563	1	422/100	767
	2	422/102	727
	2	422/99	247
	9	422/104	267
422/564	1	422/100	767
	3	422/102	727
	12	422/104	267
422/565	1	422/101	343
	2	422/103	111
	5	422/99	247
	10	422/104	267
422/566	1	422/103	111
	4	422/102	727
	5	422/99	247
	27	422/104	267
422/567	5	422/104	267
422/568	1	422/104	267
	8	422/102	727
	12	422/99	247
422/569	1	422/103	111
	2	422/104	267
	4	422/102	727
	10	422/99	247
422/570	1	422/100	767
	1	422/102	727
	1	422/103	111
	5	422/99	247
422/600	1	422/190	169
	1	422/196	27
	2	422/192	28
	2	422/193	109
	5	422/188	108
422/601	1	422/193	109
	1	422/196	27
	2	422/188	108
	3	422/189	290
	4	422/191	206
	7	422/190	169
422/602	1	422/189	290
	1	422/191	206
422/603	1	422/188	108
	1	422/196	27

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>	
422/604	4	422/191	206	
	1	422/192	28	
	1	422/194	67	
	1	422/195	39	
	1	422/196	27	
	3	422/190	169	
	3	422/193	109	
	4	422/191	206	
	4	422/197	184	
	8	422/189	290	
	422/605	1	422/188	108
		2	422/190	169
		2	422/193	109
4		422/195	39	
5		422/197	184	
7		422/189	290	
9		422/194	67	
32		422/191	206	
422/606	1	422/192	28	
	2	422/102	727	
	2	422/104	267	
	3	422/100	767	
	3	422/188	108	
	4	422/197	184	
	5	422/195	39	
	8	422/194	67	
	9	422/193	109	
	11	422/190	169	
	13	422/191	206	
	25	422/189	290	
	422/607	1	422/188	108
1		422/197	184	
4		422/190	169	
4		422/192	28	
5		422/195	39	
6		422/189	290	
6		422/194	67	
8		422/193	109	
14		422/197	184	
34		422/191	206	
422/608		1	422/190	169
		1	422/191	206
		1	422/195	39

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	2	422/192	28
	2	422/197	184
	3	422/193	109
	5	422/188	108
	8	422/190	169
	23	422/189	290
422/609	1	422/188	108
	1	422/192	28
	3	422/191	206
	6	422/190	169
	6	422/193	109
	12	422/189	290
422/610	1	422/192	28
	2	422/195	39
	3	422/194	67
	4	422/191	206
	4	422/197	184
	5	422/193	109
	8	422/188	108
	19	422/189	290
	23	422/190	169
422/611	1	422/188	108
	1	422/190	169
	1	422/194	67
	1	422/196	27
	6	422/189	290
422/612	1	422/193	109
	1	422/195	39
	1	422/196	27
	1	422/197	184
	2	422/194	67
	5	422/188	108
	6	422/191	206
	10	422/190	169
	20	422/189	290
422/613	1	422/190	169
	1	422/191	206
	1	422/193	109
	1	422/195	39
	1	422/196	27
	1	422/197	184
	5	422/189	290
422/614	1	422/192	28

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	1	422/194	67
	3	422/191	206
	4	422/190	169
	4	422/193	109
	4	422/197	184
	6	422/188	108
	14	422/189	290
422/615	1	422/195	39
	2	422/189	290
	2	422/197	184
	3	422/190	169
422/616	1	422/191	206
	1	422/193	109
	1	422/194	67
	1	422/197	184
	2	422/101	343
	2	422/188	108
	5	422/190	169
	7	422/189	290
422/617	1	422/188	108
	1	422/189	290
	2	422/190	169
	3	422/191	206
422/618	1	422/189	290
	3	422/188	108
	3	422/191	206
	3	422/194	67
	3	422/197	184
	4	422/195	39
	6	422/193	109
	9	422/190	169
	30	422/189	290
422/619	1	422/189	290
	1	422/192	28
	2	422/194	67
	2	422/197	184
	3	422/191	206
	5	422/188	108
	6	422/190	169
422/62	1	422/99	247
422/620	1	422/193	109
	1	422/194	67
	1	422/197	184

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	2	422/189	290
	2	422/190	169
422/621	1	422/196	27
	2	422/189	290
	2	422/197	184
	3	422/188	108
	3	422/193	109
422/622	1	422/190	169
	1	422/193	109
	1	422/197	184
	2	422/194	67
	3	422/191	206
	8	422/189	290
422/623	2	422/188	108
	2	422/189	290
	2	422/190	169
	2	422/191	206
422/624	1	422/191	206
	1	422/195	39
	2	422/194	67
	3	422/197	184
	4	422/188	108
	7	422/193	109
	16	422/189	290
422/625	1	422/189	290
	1	422/190	169
	1	422/193	109
	1	422/196	27
	2	422/195	39
	3	422/190	169
	5	422/191	206
	17	422/197	184
422/626	1	422/188	108
	1	422/192	28
	1	422/193	109
	2	422/189	290
	4	422/188	108
	4	422/190	169
	4	422/191	206
422/627	1	422/189	290
	1	422/194	67
	1	422/197	184
422/628	1	422/190	169

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	1	422/194	67
	1	422/197	184
	4	422/191	206
422/629	1	422/189	290
	2	422/191	206
	2	422/193	109
	8	422/190	169
	18	422/197	184
422/63	1	422/101	343
	2	422/104	267
	3	422/102	727
	3	422/103	111
	3	422/99	247
422/630	2	422/190	169
	3	422/188	108
	6	422/189	290
422/631	1	422/188	108
	1	422/191	206
	2	422/193	109
	6	422/189	290
	9	422/190	169
422/632	1	422/191	206
	2	422/190	169
	8	422/191	206
422/633	2	422/190	169
	2	422/191	206
422/634	1	422/188	108
	1	422/189	290
	1	422/192	28
	1	422/194	67
	3	422/190	169
	3	422/197	184
	15	422/191	206
422/635	1	422/189	290
	1	422/190	169
	3	422/191	206
422/636	1	422/192	28
	2	422/194	67
	3	422/190	169
	3	422/191	206
422/637	3	422/191	206
	9	422/192	28
422/638	1	422/194	67

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	1	422/195	39
	2	422/190	169
	5	422/188	108
	22	422/191	206
422/639	1	422/193	109
	1	422/197	184
	2	422/188	108
422/64	1	422/100	767
	1	422/101	343
	1	422/99	247
	2	422/102	727
	2	422/104	267
422/640	1	422/189	290
	6	422/197	184
422/641	1	422/190	169
	1	422/193	109
	4	422/189	290
422/642	1	422/193	109
	2	422/188	108
	2	422/189	290
422/643	1	422/191	206
	1	422/196	27
	2	422/190	169
	2	422/197	184
	4	422/189	290
	4	422/193	109
	6	422/194	67
422/644	2	422/189	290
	7	422/193	109
422/645	1	422/189	290
	1	422/194	67
	3	422/195	39
	4	422/193	109
422/646	1	422/191	206
	1	422/197	184
	1	422/99	247
	3	422/194	67
	9	422/193	109
422/647	1	422/189	290
	1	422/195	39
	3	422/194	67
422/648	1	422/191	206
	1	422/194	67



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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	5	422/195	39
422/649	2	422/189	290
422/65	1	422/100	767
	2	422/102	727
422/650	1	422/196	27
	1	422/197	184
422/651	1	422/196	27
	2	422/193	109
	2	422/197	184
	3	422/188	108
422/652	1	422/100	767
	1	422/190	169
	1	422/191	206
	1	422/197	184
	3	422/188	108
	5	422/196	27
	26	422/197	184
422/653	1	422/196	27
	4	422/197	184
422/654	4	422/197	184
422/655	1	422/190	169
	1	422/193	109
	3	422/197	184
	4	422/188	108
422/656	1	422/193	109
	1	422/197	184
422/657	1	422/188	108
	1	422/190	169
	9	422/197	184
422/658	1	422/190	169
	1	422/196	27
	7	422/197	184
422/659	1	422/190	169
	1	422/193	109
	2	422/188	108
	2	422/189	290
	16	422/197	184
422/66	1	422/99	247
422/67	1	422/101	343
	1	422/99	247
422/68.1	1	422/100	767
	1	422/102	727
	1	422/58	400

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
	7	422/103	111
422/69	1	422/100	767
	1	422/57	123
	6	422/101	343
422/70	1	422/100	767
	1	422/99	247
	2	422/101	343
422/72	2	422/102	727
422/73	2	422/101	343
	5	422/102	727
422/75	1	422/104	267
422/80	1	422/100	767
422/81	1	422/99	247
422/82	2	422/103	111
422/82.02	1	422/57	123
422/82.03	1	422/102	727
422/82.05	1	422/101	343
	1	422/102	727
	2	422/58	400
	2	422/99	247
422/82.08	1	422/104	267
422/82.09	1	422/58	400
	1	422/99	247
422/82.12	3	422/99	247
422/83	1	422/103	111
	2	422/99	247
	3	422/100	767
422/94	1	422/99	247
424/184.1	1	422/189	290
427/163.2	1	422/57	123
427/2.11	1	422/101	343
427/2.13	1	422/56	439
428/545	1	422/61	239
429/112	1	422/189	290
434/298	1	422/61	239
435/286.2	1	422/56	439
435/287.2	1	422/101	343
	1	422/104	267
	2	422/58	400
	4	422/102	727
435/288.4	1	422/104	267
	3	422/102	727
435/288.5	1	422/102	727

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
435/288.7	1	422/100	767
435/289.1	1	422/188	108
	1	422/194	67
435/290.1	1	422/194	67
435/290.2	1	422/194	67
435/297.1	1	422/101	343
435/303.1	1	422/104	267
435/4	1	422/61	239
435/6	1	422/100	767
436/10	1	422/56	439
436/166	1	422/58	400
436/169	1	422/58	400
436/173	1	422/104	267
436/176	1	422/58	400
436/177	2	422/56	439
436/179	1	422/100	767
436/180	1	422/100	767
436/3	2	422/61	239
436/518	1	422/58	400
436/531	1	422/58	400
436/58	1	422/56	439
436/63	1	422/56	439
436/95	1	422/56	439
438/1	1	422/100	767
438/57	1	422/101	343
48/127.9	1	422/189	290
	1	422/195	39
	1	422/196	27
48/61	1	422/192	28
	2	422/193	109
	3	422/196	27
	5	422/189	290
494/16	1	422/102	727
	1	422/104	267
494/18	1	422/101	343
494/33	1	422/102	727
502/407	1	422/101	343
549/534	1	422/197	184
585/500	1	422/197	184
588/306	1	422/57	123
588/405	1	422/189	290
600/556	1	422/58	400
600/572	1	422/102	727

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
600/573	1	422/101	343
	2	422/104	267
	3	422/61	239
600/574	3	422/102	727
600/575	1	422/101	343
	1	422/102	727
600/576	1	422/100	767
600/583	1	422/100	767
	2	422/102	727
600/584	4	422/101	343
604/317	1	422/104	267
604/327	1	422/58	400
604/346	1	422/101	343
604/403	1	422/101	343
	2	422/102	727
604/405	2	422/101	343
623/1.1	1	422/100	767
65/188	1	422/99	247
73/1.02	1	422/102	727
73/1.03	1	422/100	767
73/1.74	1	422/61	239
73/19.01	1	422/102	727
73/19.12	1	422/102	727
73/204.22	1	422/104	267
73/215	2	422/58	400
73/30.01	1	422/100	767
73/53.01	2	422/102	727
73/61.41	4	422/102	727
73/61.43	3	422/102	727
73/61.71	1	422/102	727
73/64.47	1	422/101	343
73/64.56	1	422/100	767
	1	422/101	343
73/73	1	422/56	439
73/776	2	422/58	400
73/863	1	422/100	767
	1	422/104	267
73/863.11	1	422/100	767
73/863.32	1	422/100	767
73/863.52	1	422/58	400
73/863.71	1	422/100	767
73/864.02	1	422/100	767
73/864.41	1	422/58	400

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<u>New Classification</u>	<u>Number of ORs</u>	<u>Source Classification</u>	<u>Number of ORs</u>
99/452	1	422/189	290

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/197	184	422/656	1
422/190	169	422/424	1
422/58	400	422/526	1
422/100	767	422/526	15
		422/534	6
422/101	343	422/548	2
		422/549	1
422/104	267	422/553	1
422/195	39	422/608	1
422/194	67	422/610	3
		422/643	6
422/59	25	422/405	2
422/55	70	422/413	1
422/102	727	422/430	2
422/104	267	422/503	1
422/188	108	422/504	2
422/100	767	422/522	22
422/103	111	422/541	5
422/104	267	422/541	1
422/61	239	422/547	1
422/99	247	422/548	1
422/100	767	422/561	17
422/188	108	422/600	5
422/193	109	422/600	2
422/56	439	422/414	2
		422/425	6
422/102	727	422/523	1
422/99	247	422/547	28
422/189	290	422/618	30
422/188	108	422/623	2
422/189	290	422/624	16
422/101	343	422/400	4
422/56	439	422/402	3
422/58	400	422/411	14
422/57	123	422/428	7
		422/504	4
422/104	267	422/511	1
422/101	343	422/528	2
422/100	767	422/562	4
422/197	184	422/628	1
422/192	28	422/634	1
422/193	109	422/655	1
422/57	123	422/402	5

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/56	439	422/404	12
422/55	70	422/417	1
422/56	439	422/421	42
422/61	239	422/555	1
422/189	290	422/602	1
422/195	39	422/607	5
422/188	108	422/621	3
422/194	67	422/624	2
422/188	108	422/638	5
422/61	239	422/403	3
422/58	400	422/412	38
422/61	239	422/417	10
422/190	169	422/502	1
422/104	267	422/527	2
422/58	400	422/550	3
422/61	239	422/561	1
422/104	267	422/564	12
422/190	169	422/605	2
422/189	290	422/631	6
422/191	206	422/637	3
422/197	184	422/646	1
422/195	39	422/647	1
422/101	343	422/501	1
422/102	727	422/502	7
422/100	767	422/504	75
		422/508	5
422/102	727	422/525	1
422/99	247	422/534	6
422/101	343	422/535	46
		422/547	4
422/99	247	422/561	11
422/195	39	422/606	5
422/188	108	422/609	1
422/193	109	422/610	5
422/197	184	422/619	2
422/188	108	422/624	4
422/193	109	422/626	1
422/190	169	422/635	1
422/197	184	422/653	4
422/58	400	422/410	6
422/59	25	422/416	4
422/104	267	422/548	1
		422/549	3

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/191	206	422/605	32
422/192	28	422/610	1
422/188	108	422/626	4
422/189	290	422/649	2
		422/618	1
422/100	767	422/509	2
422/102	727	422/551	1
422/99	247	422/94	1
422/102	727	356/246	13
422/194	67	422/109	1
422/101	343	604/403	1
		422/70	2
422/102	727	422/159	1
422/101	343	422/73	2
422/100	767	204/613	1
422/104	267	435/287.2	1
422/195	39	48/127.9	1
422/189	290	422/241	1
422/58	400	73/215	2
422/102	727	422/242	2
422/58	400	436/518	1
422/104	267	235/435	1
422/102	727	73/19.12	1
422/189	290	422/111	1
422/102	727	600/583	2
422/196	27	422/139	1
422/197	184	422/288	1
422/56	439	436/63	1
422/189	290	422/140	2
422/61	239	428/545	1
422/102	727	73/61.71	1
422/193	109	422/224	1
422/100	767	623/1.1	1
422/101	343	422/159	1
422/189	290	424/184.1	1
422/188	108	422/199	2
422/103	111	422/68.1	7
422/102	727	422/129	2
422/61	239	600/573	3
422/100	767	73/863	1
422/101	343	502/407	1
422/100	767	438/1	1
422/60	15	422/417	1



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422/57	123	422/424	3
422/61	239	422/425	2
422/101	343	422/525	1
422/102	727	422/536	19
422/191	206	422/607	34
422/193	109	422/620	1
422/56	439	422/407	2
422/58	400	422/426	2
422/99	247	422/536	14
422/100	767	422/537	3
422/58	400	422/561	2
422/192	28	422/606	1
422/195	39	422/610	2
422/190	169	422/612	10
422/188	108	422/614	6
422/189	290	422/616	7
422/188	108	422/618	3
422/194	67	422/622	2
422/190	169	422/623	2
422/193	109	422/624	7
422/190	169	422/626	4
422/189	290	422/645	1
422/104	267	422/404	1
422/102	727	422/501	5
422/191	206	422/528	1
422/104	267	422/563	9
422/100	767	422/606	3
422/192	28	422/609	1
422/194	67	422/627	1
422/191	206	422/628	4
422/188	108	422/642	2
422/58	400	422/413	11
422/104	267	422/417	1
422/61	239	422/424	1
422/103	111	422/504	3
		422/537	15
		422/538	5
422/99	247	422/566	5
422/197	184	422/606	4
422/189	290	422/608	23
422/191	206	422/622	3
422/61	239	422/416	5
422/58	400	422/419	9

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/100	767	422/533	1
422/190	169	422/611	1
		422/616	5
422/191	206	422/617	3
		422/631	1
422/190	169	422/633	2
422/197	184	422/634	3
422/189	290	422/644	2
422/193	109	422/651	2
422/196	27	422/658	1
422/102	727	422/401	3
422/99	247	422/513	1
		422/530	3
422/102	727	422/534	17
422/57	123	422/547	1
422/103	111	422/554	1
422/190	169	422/614	4
422/194	67	422/648	1
422/188	108	422/655	4
		422/659	2
422/101	343	422/500	1
		422/502	6
422/56	439	422/504	2
422/102	727	422/527	15
422/101	343	422/532	8
422/99	247	422/568	12
422/196	27	422/600	1
422/190	169	422/615	3
422/194	67	422/616	1
422/189	290	422/622	8
		422/623	2
422/192	28	422/637	9
422/190	169	422/652	1
422/99	247	422/411	1
422/102	727	422/417	6
422/101	343	422/510	1
		422/514	1
422/103	111	422/547	3
		422/565	2
422/193	109	422/604	3
422/194	67	422/611	1
422/189	290	422/625	1
422/188	108	422/639	2

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/190	169	422/643	2
422/193	109	422/645	4
422/102	727	422/536	1
422/56	439	422/425	1
422/61	239	436/3	2
422/104	267	494/16	1
		159/6.1	1
422/102	727	600/574	3
422/101	343	494/18	1
422/104	267	422/64	2
422/189	290	429/112	1
422/58	400	436/169	1
422/101	343	422/67	1
422/103	111	137/9	1
422/102	727	494/33	1
422/56	439	436/177	2
422/102	727	422/63	3
422/58	400	210/359	1
422/188	108	422/225	1
		422/142	1
422/102	727	73/61.43	3
422/189	290	422/200	1
422/103	111	210/321.71	1
422/100	767	73/64.56	1
422/189	290	48/61	5
422/100	767	73/1.03	1
422/104	267	250/440.11	1
422/193	109	422/225	1
422/101	343	73/64.47	1
		366/209	2
422/58	400	73/864.41	1
422/102	727	422/241	1
		73/61.41	4
422/194	67	435/289.1	1
422/102	727	366/220	1
		435/287.2	4
		600/575	1
422/58	400	356/409	1
422/197	184	422/658	7
422/99	247	422/400	4
422/61	239	422/402	5
422/59	25	422/422	1
422/100	767	422/547	3

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/189	290	422/604	8
		422/605	7
422/191	206	422/606	13
422/190	169	422/631	9
422/194	67	422/636	2
422/190	169	422/638	2
422/58	400	422/403	6
422/61	239	422/407	2
422/100	767	422/424	1
422/101	343	422/519	1
422/102	727	422/550	39
422/196	27	422/604	1
422/189	290	422/614	14
422/197	184	422/618	3
422/193	109	422/659	1
422/59	25	422/408	3
422/61	239	422/562	1
422/188	108	422/607	1
422/197	184	422/624	3
422/56	439	422/400	20
422/55	70	422/401	6
422/60	15	422/413	4
422/55	70	422/422	2
422/61	239	422/430	130
422/100	767	422/506	7
		422/521	15
		422/527	3
422/61	239	422/537	1
422/99	247	422/544	1
		422/550	7
422/56	439	422/562	1
422/188	108	422/601	2
422/189	290	422/606	25
422/197	184	422/621	2
422/191	206	422/632	8
422/193	109	422/641	1
422/58	400	422/401	81
422/56	439	422/429	10
422/57	123	422/502	1
422/190	169	422/504	1
422/102	727	422/513	1
422/99	247	422/542	1
422/190	169	422/609	6

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/189	290	422/617	1
422/188	108	422/634	1
422/192	28	422/636	1
422/60	15	422/420	1
422/57	123	422/421	2
		422/423	1
422/102	727	422/521	1
422/58	400	422/534	1
422/103	111	422/535	1
422/99	247	422/553	3
422/102	727	422/561	15
422/104	267	422/566	27
422/197	184	422/612	1
422/189	290	422/643	4
422/57	123	422/413	2
422/99	247	422/529	1
		422/543	2
422/189	290	422/610	19
		422/613	5
		422/620	2
422/58	400	422/429	1
422/104	267	422/430	1
422/58	400	422/504	5
422/99	247	422/549	7
422/102	727	422/568	8
422/104	267	422/606	2
422/193	109	422/616	1
422/191	206	422/619	3
422/195	39	422/648	5
422/197	184	422/651	2
		422/654	4
422/100	767	422/534	1
422/190	169	422/608	1
422/104	267	422/509	1
422/189	290	422/627	1
422/188	108	422/255	3
422/189	290	422/224	1
422/102	727	366/336	1
422/101	343	438/57	1
422/100	767	422/69	1
422/102	727	374/55	1
		435/288.5	1
422/101	343	204/612	1

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/104	267	235/486	1
		435/303.1	1
422/191	206	202/158	1
422/58	400	436/531	1
422/57	123	427/163.2	1
422/100	767	222/1	1
422/104	267	600/573	2
422/103	111	422/83	1
422/58	400	422/82.05	2
422/104	267	15/320	1
422/100	767	436/180	1
422/104	267	422/109	1
422/100	767	435/288.7	1
		435/6	1
422/101	343	422/401	1
422/55	70	422/404	15
422/58	400	422/404	17
422/61	239	422/411	5
422/55	70	422/416	2
		422/423	1
422/102	727	422/510	1
422/100	767	422/512	14
		422/514	17
		422/523	8
422/99	247	422/535	3
422/103	111	422/570	1
422/190	169	422/601	7
422/189	290	422/615	2
422/191	206	422/635	3
422/99	247	422/646	1
422/190	169	422/655	1
422/61	239	422/401	14
422/57	123	422/427	1
422/194	67	422/605	9
422/190	169	422/610	23
422/196	27	422/612	1
422/188	108	422/617	1
422/190	169	422/625	3
422/191	206	422/626	4
422/194	67	422/645	1
422/57	123	422/422	1
422/100	767	422/501	85
422/102	727	422/503	10

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/101	343	422/503	3
422/100	767	422/538	1
422/103	111	422/542	3
422/102	727	422/556	7
422/197	184	422/615	2
422/56	439	422/408	25
		422/412	22
422/103	111	422/501	7
422/101	343	422/526	1
422/103	111	422/543	1
422/188	108	422/608	5
422/193	109	422/609	6
422/190	169	422/630	2
422/197	184	422/643	2
422/190	169	422/657	1
422/102	727	422/400	11
422/100	767	422/412	1
422/56	439	422/547	1
422/103	111	422/550	1
422/102	727	422/569	4
		422/570	1
422/188	108	422/603	1
422/197	184	422/613	1
422/191	206	422/633	2
422/197	184	422/639	1
422/100	767	422/400	9
422/55	70	422/402	5
422/56	439	422/417	8
422/103	111	422/534	1
422/102	727	422/547	199
422/190	169	422/550	1
422/101	343	422/552	5
422/193	109	422/607	8
422/188	108	422/612	5
422/197	184	422/614	4
422/191	206	422/616	1
		422/618	3
422/197	184	422/622	1
422/193	109	422/622	1
422/188	108	422/630	3
422/193	109	422/644	7
422/61	239	422/400	5
422/55	70	422/411	1

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/57	123	422/417	7
422/56	439	422/426	4
422/99	247	422/501	6
422/197	184	422/604	4
422/193	109	422/631	2
422/189	290	422/659	2
422/56	439	422/424	40
422/100	767	422/427	1
422/58	400	422/506	1
422/100	767	422/528	1
422/102	727	422/549	43
422/58	400	422/552	1
422/104	267	422/562	61
422/188	108	422/610	8
		422/619	5
422/189	290	422/621	2
422/188	108	422/631	1
422/197	184	422/650	1
		422/652	26
422/104	267	422/401	1
422/58	400	422/421	1
422/102	727	422/553	1
422/58	400	436/176	1
422/99	247	422/63	3
422/194	67	422/106	1
422/99	247	422/82.09	1
422/56	439	116/200	2
422/58	400	600/556	1
422/189	290	422/129	1
		48/127.9	1
422/100	767	73/863.32	1
422/104	267	435/288.4	1
422/61	239	434/298	1
422/188	108	203/49	1
422/99	247	422/83	2
422/56	439	106/31.17	1
422/102	727	204/601	1
422/189	290	588/405	1
422/192	28	422/140	1
422/100	767	436/179	1
422/189	290	422/106	1
422/99	247	422/70	1
422/100	767	422/130	4



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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/101	343	422/63	1
422/196	27	422/108	1
422/102	727	73/53.01	2
422/61	239	422/28	1
422/194	67	435/290.1	1
422/57	123	422/82.02	1
422/101	343	73/64.56	1
		422/44	1
422/100	767	359/398	1
		73/864.02	1
422/101	343	422/218	1
422/104	267	73/863	1
422/100	767	159/44	1
		204/601	1
		422/430	1
422/56	439	422/430	1
422/100	767	422/525	40
422/102	727	422/552	65
422/99	247	422/552	13
		422/554	1
422/101	343	422/565	1
422/99	247	422/569	10
422/195	39	422/605	4
422/191	206	422/610	4
422/194	67	422/618	3
		422/619	2
422/190	169	422/634	3
422/57	123	422/408	10
422/58	400	422/415	3
422/100	767	422/417	4
		422/503	45
422/58	400	422/503	1
422/100	767	422/518	9
422/102	727	422/566	4
422/191	206	422/602	1
		422/603	4
422/197	184	422/607	14
422/189	290	422/607	6
		422/619	1
422/102	727	422/404	3
422/55	70	422/552	1
422/99	247	422/565	5
422/102	727	422/606	2

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/189	290	422/609	12
422/193	109	422/629	2
422/189	290	422/641	4
422/55	70	422/400	8
422/58	400	422/402	5
422/102	727	422/403	1
422/99	247	422/502	2
422/101	343	422/536	4
422/103	111	422/539	5
422/61	239	422/550	1
422/102	727	422/551	10
422/100	767	422/552	2
422/104	267	422/561	45
422/102	727	422/562	11
422/197	184	422/610	4
422/191	206	422/614	3
422/193	109	422/618	6
422/191	206	422/624	1
422/189	290	422/642	2
422/197	184	422/657	9
422/55	70	422/414	4
422/104	267	422/552	3
422/190	169	422/600	1
422/192	28	422/604	1
422/193	109	422/605	2
422/194	67	422/614	1
422/197	184	422/629	18
422/188	108	422/651	3
422/56	439	422/411	4
422/104	267	422/504	3
422/188	108	422/611	1
422/196	27	422/625	1
422/57	123	422/404	9
		422/407	1
422/55	70	422/412	3
422/61	239	422/420	1
422/56	439	422/552	2
422/101	343	422/553	2
422/103	111	422/561	2
422/104	267	422/565	10
		422/569	2
422/189	290	422/601	3
422/190	169	422/604	3

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
		422/636	3
422/100	767	422/404	2
422/102	727	422/410	1
422/55	70	422/415	2
422/58	400	422/422	2
422/100	767	422/513	22
		422/519	7
		422/536	1
422/188	108	422/606	3
		422/616	2
422/189	290	422/634	1
422/194	67	422/647	3
422/100	767	422/547	1
422/58	400	422/418	1
422/56	439	422/423	1
422/190	169	422/632	2
422/56	439	422/422	2
422/102	727	422/527	1
422/58	400	422/425	1
422/188	108	422/626	1
422/100	767	73/30.01	1
422/58	400	219/413	1
422/189	290	422/233	1
		99/452	1
422/100	767	422/68.1	1
422/99	247	422/26	1
422/101	343	210/198.2	1
		117/202	1
422/100	767	422/64	1
		600/576	1
422/104	267	422/63	2
422/196	27	48/127.9	1
422/100	767	422/83	3
422/102	727	73/19.01	1
422/103	111	422/63	3
422/102	727	422/73	5
		494/16	1
422/104	267	378/86	1
422/192	28	48/61	1
422/194	67	435/290.2	1
422/101	343	604/405	2
		422/69	6
422/188	108	422/168	1

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/58	400	422/68.1	1
422/104	267	34/218	1
422/102	727	210/222	1
422/56	439	436/58	1
422/102	727	422/68.1	1
		422/509	2
422/101	343	422/544	1
422/102	727	422/554	1
422/100	767	422/564	1
422/192	28	422/600	2
422/189	290	422/612	20
422/193	109	422/621	3
422/197	184	422/627	1
422/190	169	422/629	8
422/57	123	422/412	3
422/58	400	422/420	2
		422/502	2
422/102	727	422/548	32
422/194	67	422/607	6
422/197	184	422/608	2
422/196	27	422/611	1
422/190	169	422/618	9
422/191	206	422/636	3
422/61	239	422/408	5
422/56	439	422/413	6
422/99	247	422/500	17
422/102	727	422/504	11
422/61	239	422/534	1
422/101	343	422/534	78
422/104	267	422/547	2
422/101	343	422/554	1
422/190	169	422/607	4
		422/608	8
		422/617	2
422/192	28	422/619	1
422/196	27	422/621	1
422/195	39	422/625	2
422/191	206	422/634	15
422/193	109	422/642	1
422/58	400	422/414	1
422/56	439	422/420	92
422/100	767	422/422	3
422/56	439	422/423	35

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/58	400	422/424	1
422/100	767	422/500	4
422/102	727	422/535	4
422/196	27	422/603	1
422/193	109	422/612	1
422/195	39	422/613	1
422/196	27	422/653	1
422/57	123	422/400	3
422/61	239	422/421	1
422/101	343	422/430	4
		422/513	4
		422/520	1
		422/530	7
422/191	206	422/604	4
422/194	67	422/606	8
422/193	109	422/608	3
422/195	39	422/624	1
422/193	109	422/656	1
422/197	184	422/659	16
422/58	400	422/400	9
		422/409	4
		422/417	59
422/55	70	422/420	2
422/58	400	422/423	2
422/99	247	422/430	2
422/100	767	422/524	3
422/195	39	422/604	1
422/193	109	422/614	4
422/57	123	422/401	8
422/59	25	422/401	5
422/61	239	422/409	2
422/102	727	422/412	1
422/56	439	422/422	24
422/100	767	422/502	37
422/101	343	422/504	7
422/100	767	422/507	11
422/101	343	422/527	34
		422/538	1
422/99	247	422/545	1
422/104	267	422/550	1
422/102	727	422/557	4
422/196	27	422/650	1
422/56	439	422/401	29

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DISPOSITION CLASSIFICATION(S) OF PATENTS  
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/61	239	422/412	7
		422/429	1
422/196	27	422/503	1
422/55	70	422/504	2
422/100	767	422/511	20
422/99	247	422/527	12
		422/556	1
422/101	343	422/561	1
422/196	27	422/601	1
422/197	184	422/625	17
422/103	111	422/503	1
422/191	206	422/632	1
422/197	184	422/652	1
422/102	727	422/82.03	1
422/197	184	422/108	1
422/190	169	422/218	1
422/102	727	346/80	1
422/101	343	600/575	1
422/104	267	206/561	1
422/102	727	422/64	2
422/197	184	585/500	1
422/57	123	422/69	1
422/188	108	422/278	1
422/58	400	422/82.09	1
422/102	727	422/82.05	1
422/100	767	73/863.71	1
422/104	267	378/51	1
422/61	239	422/38	1
422/56	439	204/616	1
422/99	247	422/66	1
422/102	727	435/288.4	3
422/58	400	73/776	2
422/104	267	422/82.08	1
422/102	727	422/42	1
422/57	123	588/306	1
422/102	727	368/179	1
422/189	290	422/292	1
422/58	400	356/39	1
422/102	727	73/1.02	1
422/104	267	422/400	2
422/61	239	422/404	4
422/57	123	422/411	1
		422/416	3

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DISPOSITION CLASSIFICATION(S) OF PATENTS  
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Generated by Data Control Division

<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/103	111	422/502	3
422/102	727	422/505	5
		422/555	9
422/191	206	422/623	2
422/192	28	422/626	1
422/194	67	422/634	1
422/195	39	422/645	3
422/57	123	422/426	10
422/58	400	422/430	5
422/101	343	422/506	1
422/99	247	422/509	2
422/101	343	422/531	8
422/99	247	422/537	3
422/100	767	422/550	2
422/103	111	422/552	1
422/102	727	422/563	2
422/193	109	422/606	9
422/191	206	422/625	5
422/189	290	422/626	2
422/190	169	422/628	1
422/189	290	422/635	1
422/191	206	422/648	1
422/188	108	422/652	3
422/197	184	422/655	3
422/188	108	422/657	1
422/60	15	422/401	3
422/56	439	422/405	2
422/58	400	422/408	36
422/104	267	422/501	2
422/100	767	422/505	15
422/103	111	422/512	1
422/190	169	422/622	1
422/196	27	422/643	1
422/99	247	422/514	1
422/100	767	422/535	2
422/192	28	422/608	2
422/195	39	422/612	1
422/61	239	422/415	1
422/58	400	422/421	5
422/101	343	422/421	1
422/104	267	422/510	3
422/100	767	422/530	1
422/102	727	422/533	3

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Generated by Data Control Division

<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/99	247	422/541	1
422/58	400	422/562	1
422/100	767	422/563	1
422/191	206	422/608	1
422/193	109	422/639	1
		422/643	4
422/58	400	422/405	1
422/56	439	422/409	1
422/59	25	422/412	1
422/56	439	422/416	9
422/104	267	422/536	5
422/103	111	422/540	13
422/100	767	422/554	1
422/99	247	422/560	7
		422/562	2
422/194	67	422/612	2
		422/620	1
422/57	123	422/403	1
		422/405	1
422/60	15	422/416	6
422/102	727	422/553	41
422/191	206	422/612	6
422/195	39	422/618	4
422/191	206	422/646	1
422/104	267	422/500	2
422/103	111	422/546	4
422/99	247	422/563	2
422/104	267	422/567	5
422/189	290	422/611	6
422/190	169	422/641	1
422/193	109	422/646	9
422/58	400	422/420	1
422/197	184	422/607	1
422/190	169	422/625	1
422/58	400	422/409	1
		422/423	1
422/193	109	422/220	1
422/58	400	241/22	1
422/100	767	600/583	1
422/99	247	422/261	1
422/188	108	435/289.1	1
422/56	439	436/10	1
422/104	267	422/75	1



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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/189	290	422/226	1
422/193	109	48/61	2
422/99	247	422/82.12	3
422/58	400	356/410	1
422/101	343	435/287.2	1
422/56	439	252/408.1	1
422/100	767	422/70	1
		422/80	1
422/61	239	250/303	1
422/102	727	422/65	2
422/99	247	65/188	1
422/104	267	604/317	1
422/99	247	422/67	1
422/101	343	604/346	1
422/196	27	422/145	1
422/100	767	356/246	1
422/58	400	73/863.52	1
422/61	239	73/1.74	1
422/102	727	422/130	3
422/100	767	73/863.11	1
422/190	169	422/140	1
422/101	343	422/64	1
422/56	439	73/73	1
422/193	109	422/139	1
422/102	727	604/403	2
422/99	247	422/82.05	2
422/56	439	427/2.13	1
422/102	727	600/572	1
422/58	400	435/287.2	2
422/101	343	600/584	4
422/196	27	48/61	3
422/104	267	73/204.22	1
422/100	767	250/284	2
422/61	239	435/4	1
422/103	111	422/82	2
422/101	343	422/82.05	1
422/58	400	436/166	1
422/56	439	250/483.1	1
422/57	123	422/410	2
422/55	70	422/425	2
422/57	123	422/425	13
422/56	439	422/428	4
422/100	767	422/529	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS  
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Generated by Data Control Division

<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/58	400	422/547	3
422/101	343	422/562	2
422/193	109	422/613	1
422/101	343	422/616	2
422/190	169	422/620	2
422/196	27	422/651	1
422/99	247	422/504	2
422/102	727	422/537	3
422/100	767	422/549	3
422/99	247	422/551	4
422/188	108	422/605	1
422/195	39	422/615	1
422/197	184	422/640	6
422/100	767	422/419	1
422/56	439	422/427	1
422/99	247	422/503	8
422/100	767	422/510	44
		422/517	7
422/103	111	422/544	4
		422/545	6
422/192	28	422/607	4
422/191	206	422/613	1
422/197	184	422/620	1
422/190	169	422/658	1
422/56	439	422/410	1
422/59	25	422/413	8
422/101	343	422/417	3
422/100	767	422/509	63
422/99	247	422/538	1
422/102	727	422/560	2
422/103	111	422/569	1
422/194	67	422/638	1
422/191	206	422/643	1
422/100	767	422/652	1
422/56	439	422/403	4
422/61	239	422/413	13
422/59	25	422/417	1
422/57	123	422/501	2
422/100	767	422/516	18
		422/520	19
422/104	267	422/534	1
422/101	343	422/537	2
422/104	267	422/560	27

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<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/103	111	422/566	1
422/100	767	422/570	1
422/193	109	422/601	1
422/191	206	422/609	3
422/189	290	422/630	6
422/191	206	422/638	22
422/189	290	422/640	1
422/191	206	422/652	1
422/190	169	422/659	1
422/55	70	422/403	1
422/57	123	422/420	3
422/101	343	422/422	1
422/58	400	422/500	1
422/61	239	422/531	1
422/101	343	422/533	34
422/102	727	422/564	3
422/197	184	422/605	5
422/190	169	422/606	11
422/193	109	422/625	1
422/55	70	422/408	3
422/58	400	422/416	15
422/99	247	422/417	1
422/55	70	422/424	2
		422/426	1
422/100	767	422/515	11
422/99	247	422/528	1
422/102	727	422/531	1
422/103	111	422/549	1
422/101	343	422/560	4
422/99	247	422/570	5
422/191	206	422/601	4
422/190	169	422/613	1
422/197	184	422/616	1
422/190	169	422/619	6
422/194	67	422/628	1
422/191	206	422/629	2
422/189	290	422/629	1
422/196	27	422/652	5
422/57	123	422/429	11
422/103	111	422/528	1
422/101	343	422/550	3
422/104	267	422/568	1
422/194	67	422/604	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS  
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Generated by Data Control Division

<u>Source Classification</u>	<u>Number of ORs</u>	<u>New Classification</u>	<u>Number of ORs</u>
422/196	27	422/613	1
422/192	28	422/614	1
422/195	39	422/638	1
422/194	67	422/646	3
422/189	290	422/647	1
		422/404	1
422/100	767	422/522	2
422/102	727	422/548	1
422/101	343	422/503	1
422/100	767	422/524	1
422/189	290	422/547	1
422/101	343	422/504	1
		422/535	1
422/103	111	422/413	1
422/100	767	221/264	1
422/189	290	422/186	1
422/101	343	156/322	1
422/99	247	422/64	1
422/56	439	435/286.2	1
422/102	727	422/295	1
422/100	767	422/65	1
422/99	247	422/62	1
		422/44	2
422/55	70	216/108	1
422/101	343	427/2.11	1
422/189	290	422/184.1	1
422/102	727	422/307	1
		422/72	2
422/197	184	549/534	1
422/104	267	436/173	1
422/56	439	156/60	1
422/58	400	356/246	1
		604/327	1
422/99	247	422/81	1
422/101	343	435/297.1	1
		600/573	1
422/189	290	422/202	3
422/102	727	422/119	1
422/56	439	436/95	1
422/189	290	422/108	1

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C. CHANGES TO THE USPC-TO-IPC CONCORDANCE

<u>Class</u>	<u>USPC</u> <u>Subclass</u>	<u>IPC</u> <u>Subclass</u>	<u>Notation</u>
422	400-402	G01N	21/75, 31/22, 33/52
	403-404	G01N	31/22, 33/52, 35/00
	405-429	G01N	21/75, 31/22, 33/52
	430	B01L	3/00, 31/22, 33/52
	500	B01L	3/00, 99/00
	501-503	B01L	3/00
	504-506	B01L	3/00
		F04B	19/00
	507-508	B01L	3/00
	509-526	B01L	3/02
	527	B01D	21/00
	528-529	B01D	1/00
	530	B01D	1/02
	531	F28B	5/00
	532	B01D	5/00
		F28B	5/00
	533	B01D	45/00
	534-535	B01D	35/00, 41/00
	536	A61B	10/00
	537-539	B01L	99/00
		F16K	3/00
	540	B01L	99/00
		F16K	3/00, 5/00
	541	B01L	99/00
		F16K	15/00
	542	B01L	99/00
		F16K	25/00
	543	B01L	99/00
		F16K	3/00
	544-546	B01L	99/00
	547	B01L	3/00

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C. CHANGES TO THE USPC-TO-IPC CONCORDANCE

<u>Class</u>	<u>USPC</u>	<u>IPC</u>	<u>Notation</u>
422	548	B01L	3/00
	549-550	B01L	3/14
	551-553	B01L	3/00
		G01N	31/16
	554	B01L	3/00
		G01N	21/00
		A61J	1/06
	555	B01L	3/00
		A61J	1/10
	556-559	B01L	3/00
	560-561	B01L	9/00
	562	B01L	9/06
	563-566	B01L	9/00
	567-570	B01L	99/00
	600-603	B01J	8/00, 10/00
	604	B01J	8/00, 10/00
		B01D	19/00
	605-607	B01J	8/00, 10/00
	608-609	B01J	8/00, 10/00
		B01D	
	610	B01J	8/00, 10/00
		B01D	3/00
	611-612	B01J	8/00 10/00
		B01D	
	613	B01J	8/00 10/00
		B04C	
	614-615	B01J	8/00
		B01D	5/00
	616	B01J	8/00, 10/00
		B01D	35/00, 36/00, 41/00
	617	B01J	8/00, 10/00
		B01D	63/00
	618	B01J	8/00, 10/00

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C. CHANGES TO THE USPC-TO-IPC CONCORDANCE

<u>Class</u>	<u>USPC</u> <u>Subclass</u>	<u>IPC</u> <u>Subclass</u>	<u>Notation</u>
422	618 619	B01D B01J	8/00, 10/00, 21/20
	620-629	B01J	8/00, 10/00
	630	B01J	8/04, 10/00
	631-633	B01J	8/04, 19/30
	634	B01J	8/04, 21/00, 23/00
	635	B01J	8/04, 19/30
	636-640	B01J	8/04, 10/00
	641	B01J	8/04, 8/06, 10/00
	642-649	B01J	8/04, 10/00
	650-659	B01J	8/00, 8/06, 10/00

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D. CHANGES TO THE DEFINITIONS

CLASS 48 – GAS: HEATING AND ILLUMINATING

Definitions Modified:

Subclass 61: Under SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 600 – 507 for plural reaction stage reformers for producing a gas to be used other than for the purposes of heating or illumination.



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PROJECT C-7335

D. CHANGES TO THE DEFINITIONS

CLASS 53 – PACKAGE MAKING

Definitions Modified:

Subclass 426: Under SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 500 for apparatus for sterilizing containers, per se. An alternative electronic search of U.S. patents based upon a modification of the European Patent Office Classification (ECLA) System for certain subject matter in this subclass may also be found in Class 422 Cross-Reference Art Collections 908 - 948. (There are no definitions associated with these Cross-Reference Art Collections. The most available disclosure as to the types of documents contained herein is given in any notes associated with the titles.)

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PROJECT C-7335

D. CHANGES TO THE DEFINITIONS

## CLASS 73 – MEASURING AND TESTING

## Definitions Modified:

Class Definition: Under SECTION V, REFERENCES TO OTHER CLASSES, SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 400-429 for structured visual or optical indicator, per se, such as a litmus paper or other chemical test papers. (See Lines With Other Classes, Mass Spectrometry, (1) Note, above)

Subclass 426: Under SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 500-570 for miscellaneous laboratory apparatus. An alternative electronic search of U.S. patents based upon a modification of the European Patent Office Classification (ECLA) System for certain subject matter in this subclass may also be found in Class 422 Cross-Reference Art Collections 908 - 948. (There are no definitions associated with these Cross-Reference Art Collections. The most available disclosure as to the types of documents contained herein is given in any notes associated with the titles.)

Subclass 863.32:

Insert:

SEE OR SEARCH CLASS:

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D. CHANGES TO THE DEFINITIONS

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 501-526 wherein pipette means to cause, promote, regulate, or control a chemical reaction is claimed.

Subclass 864.01: Under SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 501-526 for a pipette wherein means to cause, promote, regulate, or control a chemical reaction is claimed.

Subclass 864.91: Under SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 561 for a holder for a sample or specimen container specifically designed for use in a laboratory.

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D. CHANGES TO THE DEFINITIONS

CLASS 196 – MINERAL OILS: APPARATUS

Definitions Modified:

Class Definition: Under SECTION II, REFERENCES TO OTHER CLASSES, SEE OR  
SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemistry Apparatus and Process Disinfecting, Deodorizing, Preserving or Sterilizing, subclasses 256 and 261 for extracting apparatus; and subclasses 171, 177, 631-638, and 211 for catalytic apparatus.

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D. CHANGES TO THE DEFINITIONS

Class 204 – CHEMISTRY: ELECTRICAL AND WAVE ENERGY

Definitions Modified

Subclass 403.01: Under SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 50 through 570, especially subclasses 82.01-82.04 for analytical chemical apparatus including means for carrying out nonelectrochemical analysis and for apparatus for carrying out a combined chemical and electrochemical procedure.

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D. CHANGES TO THE DEFINITIONS

CLASS 206 – SPECIAL RECEPTACLE OR PACKAGE

Definitions Modified:

Class Definition: Under SECTION III, REFERENCES TO OTHER CLASSES, SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 547, for chemical test package or kit; subclasses 500-570 for laboratory receptacles; and other appropriate subclasses for containers for that class. An alternative electronic search of U.S. patents based upon a modification of the European Patent Office Classification (ECLA) System for certain subject matter in this subclass may also be found in Class 422 Cross-Reference Art Collections 908-948. (There are no definitions associated with these Cross-Reference Art Collections. The most available disclosure as to the types of documents contained herein is given in any notes associated with the titles.)

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D. CHANGES TO THE DEFINITIONS

CLASS 208 – MINERAL OILS: PROCESSES AND PRODUCTS

Definitions Modified:

Class Definition: Under SECTION III, REFERENCES TO OTHER CLASSES, SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 631-638 and 211+ for apparatus for treating a material (including mineral oil) with a catalyst (apparatus).

Subclass 46: Under SEE OR SEARCH CLASS

Delete :

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, especially subclasses 631-638 and 211+ for apparatus for treating a material (including mineral oil) with a catalyst.

Subclass 146: Under SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, especially subclasses 631-638 and 211+ for apparatus for treating a material (including mineral oil) with a catalyst.

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PROJECT C-7335

D. CHANGES TO THE DEFINITIONS

CLASS 252 – COMPOSITIONS

Definitions Modified:

Class Definition: Under SECTION IV, REFERENCES TO OTHER CLASSES, SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 400-429 for litmus and other test papers and analogous devices; also appropriate subclasses for apparatus employing catalysis.



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PROJECT C-7335

D. CHANGES TO THE DEFINITIONS

## CLASS 356 – OPTICS: MEASURING AND TESTING

## Definitions Modified:

Class Definition: Under SECTION IV, REFERENCES TO OTHER CLASSES, SEE OR SEARCH CLASS

Delete :

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 50+ for analytical and analytical-control apparatus involving an optical test; subclass 44 for viable blood-treating apparatus; and subclass 500 for miscellaneous laboratory apparatus. An alternative electronic search of U.S. patents based upon a modification of the European Patent Office Classification (ECLA) System for certain subject matter in this subclass may also be found in Class 422 Cross-Reference Art Collections 908-948. (There are no definitions associated with these Cross-Reference Art Collections. The most available disclosure as to the types of documents contained herein is given in any notes associated with the titles.)

Subclass 246: Under SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 547 for laboratory fluid containers and 561 for a holder for a sample or specimen container.

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D. CHANGES TO THE DEFINITIONS

Subclass 422: Under SEE OR SEARCH CLASS

Delete :

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 430 for analytical apparatus which may be in the form of kits which utilize flat, plate-like colored standards as a basis for a visual or photoelectric comparison with a colored substance reactively produced in order to determine the presence of a chemical element, anion, or cation.

Subclass 440: Under SEE OR SEARCH CLASS:

Delete :

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 500-555 for laboratory apparatus elements which may include fluid containers. An alternative electronic search of U.S. patents based upon a modification of the European Patent Office Classification (ECLA) System for certain subject matter in this subclass may also be found in Class 422 Cross-Reference Art Collections 908 - 948. (There are no definitions associated with these Cross-Reference Art Collections. The most available disclosure as to the types of documents contained herein is given in any notes associated with the titles.)

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D. CHANGES TO THE DEFINITIONS

CLASS 422 - CHEMICAL APPARATUS AND PROCESS DISINFECTING, DEODORIZING,  
PRESERVING, OR STERILIZING

Definitions Abolished:

Subclasses:

55 – 61, 99-104, 188-197

Definitions Modified:

Subclass 49: Under SEE OR SEARCH CLASS THIS CLASS, SUBCLASS

Delete :

The reference to subclass 190

Insert:

631-638

Subclass 82.05: Under SEE OR SEARCH CLASS THIS CLASS, SUBCLASS

Delete:

The reference to subclass 55+

Insert:

400-429

Subclass 122: Under SEE OR SEARCH CLASS THIS CLASS, SUBCLASS

Delete :

The reference to subclass 190

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Insert:

631-638

Subclass 211: Under SEE OR SEARCH CLASS THIS CLASS, SUBCLASS

Delete :

The reference to subclass 190+

Insert:

631-638

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Definitions Established:

**400 Structured visual or optical indicator, per se:**

This subclass is indented under subclass 50. Apparatus comprising a structured indicator; i.e., an indicator which is more than a composition, per se, and has structure, which gives a visual or optical indication of the presence or amount of material to be tested in the sample.

- (1) Note. Visual or optical indicators, per se, include color indicators such as test papers or test strips and columns which give a visual or optical indication, (e.g., color, etc.) of the presence or amount of material in the sample.

SEE OR SEARCH THIS CLASS, SUBCLASS:

82.05+, for structured visual or optical indicators which include a standard referencing scale such as pipettes, burettes, color charts, and test strips including a standard colored chart.

SEE OR SEARCH CLASS:

- 116, Signals and Indicators, subclasses 200+ for indicators of general utility.  
252, Compositions, subclasses 299.01 for a liquid crystal composition, and 408.1 for a nonreactive analytical, testing or indicating composition.  
436, Chemistry: Analytical and Immunological Testing, appropriate subclasses for analytical and analytical control processes employing liquid crystals.

**401 In a holder or container:**

This subclass is indented under subclass 400. Apparatus wherein the indicator is contained in a receptacle (e.g., test plate, dish, tray, slide, etc.).

**402 Structure to facilitate analysis of the results:**

This subclass is indented under subclass 401. Apparatus designed to provide easier interpretation of the outcome of the reaction of the indicator with the sample.

**403 Read by automated means:**

This subclass is indented under subclass 402. Apparatus wherein the results of the reaction are interpreted using an instrumental analyzer.

**404 Registration of the structure within the analyzer:**

This subclass is indented under subclass 403. Apparatus comprising a means for aligning the indicator receptacle inside the instrument prior to measurement.

**405 Tubular:**

This subclass is indented under subclass 401. Apparatus wherein the indicator is contained within an elongated cylindrical or oval structure (e.g., test tube, etc.).

**406 Including a swab:**

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This subclass is indented under subclass 405. Apparatus comprising an absorbent material attached to a grasping member for enabling sample-reagent contact (e.g., swab, etc.).

**407 Well plate:**

This subclass is indented under subclass 401. Apparatus wherein the indicator is contained within at least one depression or recessed feature in a generally planar structure (e.g., microtitre plate, etc.).

SEE OR SEARCH CLASS:

210, Liquid Purification or Separation, appropriate subclasses for multiwell plates having liquid separation membrane structure.

**408 Structure for contacting the sample with the reagent:**

This subclass is indented under subclass 401. Apparatus designed to facilitate the reaction of the indicator with the sample.

**409 Envelope, packet or sleeve (e.g., for fecal occult sample, etc.):**

This subclass is indented under subclass 408. Apparatus wherein the indicator is contained within a flat, thin, folding sheet-like structure.

**410 Lancet (e.g., for finger prick, etc.):**

This subclass is indented under subclass 408. Subject matter comprising a structure for transferring the sample to the indicator reagent structure using a sharp instrument, (e.g., needle, lancet etc.).

SEE OR SEARCH CLASS:

128, Surgery, appropriate subclasses and its dependent classes for a lance or lancet combined with specific structure adapted to interact with the human body.

**411 Swab:**

This subclass is indented under subclass 408. Subject matter comprising a structure for swiping the sample onto an absorbent material containing the indicator reagent structure which is attached to a grasping member, (e.g., a stick or handle etc.).

**412 Device using capillary action:**

This subclass is indented under subclass 408. Subject matter comprising a structure for absorbing the sample onto a receiving material containing the indicator reagent using capillary action.

**413 Device having frangible compartment:**

This subclass is indented under subclass 408. Subject matter comprising a structure for beginning the reactive process by allowing the contents of separate sample and reagent compartments of a container to mix using a breakable feature of the container.

**414 Device having torturous path:**

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This subclass is indented under subclass 408. Subject matter comprising a structure for accomplishing intimate contact between the sample and the reagent by utilizing a porous, reagent containing matrix consisting of serpentine, twisting passages through which the sample components flow.

**415 Including centrifuge:**

This subclass is indented under subclass 408. Subject matter comprising a structure for enabling sample and reagent contact using an apparatus that rotates at high speed around a central axis creating forces that enable transfer of the reagent to the sample or sample to the reagent.

**416 Including means for facilitating reaction of a gaseous fluid:**

This subclass is indented under subclass 408. Subject matter comprising a structure for enabling contact between a sample or reagent in a vapor state so that a reaction occurs.

**417 Including channel, valve or chamber:**

This subclass is indented under subclass 408. Subject matter comprising a compartment, passageway, capillary or flow control feature for enabling sample and reagent contact.

**418 Wiping means to acquire solid test substance:**

This subclass is indented under subclass 408. Subject matter comprising a means for obtaining a solid sample and contacting it with a reagent by a rubbing technique.

**419 Acquisition of liquid sample:**

This subclass is indented under subclass 408. Apparatus comprising a means for obtaining a sample in liquid form and contacting the sample with the reagent.

**420 Having reagent in absorbent or bibulous substrate:**

This subclass is indented under subclass 400. Apparatus wherein a substance used to detect or measure another substance (i.e., indicating reagent) is contained in a substrate capable of taking up or sponging liquids via capillary action, (e.g., a dip-stick, test paper, etc.).

**421 Plural layers:**

This subclass is indented under subclass 420. Subject matter wherein the absorbent or bibulous substrate has additional strata, (e.g., blocking layer, etc.)

**422 Filtering:**

This subclass is indented under subclass 421. Subject matter wherein an additional stratum (e.g., membrane, etc.) is present to treat a sample by removing a certain substance from it while allowing another to pass through to the reagent substrate.

**423 Spreading:**

This subclass is indented under subclass 421. Subject matter wherein an additional stratum is present to assist sample diffusion to the reagent substrate.

**424 Support layer:**

This subclass is indented under subclass 421. Subject matter wherein an additional stratum (e.g., a polymer, etc.) is present on which other layers are applied.

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- 425 Having coated reagent:**  
This subclass is indented under subclass 400. Subject matter wherein the surface of a substrate is covered with a substance, (e.g., indicating reagent, etc.) used to detect or measure another substance.
- 426 Plural layers:**  
This subclass is indented under subclass 425. Subject matter wherein the coated substrate has additional strata, (e.g., blocking layer, etc.).
- 427 Filtering layer:**  
This subclass is indented under subclass 426. Subject matter wherein the substrate contains a stratum, (e.g., membrane, etc.) that is designed to treat a sample by removing a certain substance from it while allowing another to pass through.
- 428 Spreading layer:**  
This subclass is indented under subclass 426. Subject matter wherein an additional stratum is present to assist sample diffusion to the reagent substrate.
- 429 Support layer:**  
This subclass is indented under subclass 426. Subject matter wherein an additional, non-flexible stratum (e.g., glass, etc.) is present on which other layers are applied.
- 430 Test package or kit:**  
This subclass is indented under subclass 50. Apparatus comprising (a) a package containing reagents and all the necessary ingredients to perform a test or (b) self contained test kits for field testing, usually having dosage amounts of each material needed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

400-429, for a structured visual or optical indicator which may be a component of a kit or package.

SEE OR SEARCH CLASS:

206, Special Receptacle or Package, subclass 569 for containers for test kits without specified chemical contents such as reagents or reactants.

- 500 Miscellaneous laboratory apparatus and elements, per se:**  
This subclass is indented under subclass 50. Apparatus specifically designed for use in a laboratory.
- 501 Volumetric fluid transfer means (e.g., pipette, pipettor, etc.):**  
This subclass is indented under subclass 500. Apparatus for conveying from one place to another a specified quantity of a liquid or gas.
- 502 Micro-fluidic device:**



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This subclass is indented under subclass 501. Apparatus for precisely controlling and manipulating a liquid or gas which is constrained to a small, typically sub-microliter scale.

**503 Plate design or structure:**

This class is indented under subclass 502. Apparatus wherein the constraining means is in the form of a flat thin sheet of uniform thickness with micro-channels formed in the surface thereof, and the particular pattern or makeup of that constraining means is recited.

**504 Liquid moving means:**

This subclass is indented under subclass 502. Apparatus for causing the liquid or gas to travel within a micro-fluidic device.

**505 Pump:**

This subclass is indented under subclass 504. Apparatus wherein a piston, plunger, or a set of rotating vanes is the force which causes fluid to travel within the micro-fluidic device.

**506 Centrifugal force:**

This subclass is indented under subclass 504. Apparatus wherein the effect that tends to move an object away from the center of a circle it is rotating about is the force which causes the fluid to travel within the micro-fluidic device.

**507 Capillary action:**

This subclass is indented under subclass 504. Apparatus wherein the ability of a narrow interstice to draw a fluid due to surface tension is the force which causes the fluid to travel with the microfluidic device.

**508 Spray tip:**

This subclass is indented under subclass 502. Apparatus wherein fluid is delivered to an analyzer in the form of a fine mist.

**509 Automated system:**

This subclass is indented under subclass 501. Apparatus wherein the processes of drawing, measurement, delivery, positioning or movement of a liquid are controlled by a machine.

**510 Including washing means:**

This subclass is indented under subclass 509. Apparatus additionally including an automated procedure for cleaning the device.

**511 Including tip attachment or removal:**

This subclass is indented under subclass 509. Apparatus additionally including an automated procedure for fastening a new fluid delivery end to the device, or taking away a used fluid delivery end.

**512 Including seal penetration means:**

This subclass is indented under subclass 501. Apparatus wherein the device tip acts to pierce a container in order to reach a liquid to be drawn into the device

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- 513 Including filter:**  
This subclass is indented under subclass 501. Apparatus wherein a means to trap or to pass a specific liquid or solid in order to separate out constituents is included in the device.
- 514 Mixing of diverse substances within pipette:**  
This subclass is indented under subclass 501. Apparatus wherein an agitation means is included in the device in order to combine plural distinct substances introduced into the device
- 515 Sequential multidispensing from a single tip:**  
This subclass is indented under subclass 501. Apparatus wherein a single dosing device delivers plural doses before recharging its supply.
- 516 Variable volume:**  
This subclass is indented under subclass 501. Apparatus wherein the device can be set to draw in and expel differing amounts of liquid.
- 517 Including liquid level sensor:**  
This subclass is indented under subclass 516. Apparatus including a device to detect height at which liquid is accumulated within the apparatus.
- 518 Electrically operated:**  
This subclass is indented under subclass 517. Apparatus wherein the means to detect the height of the level of liquid within the device is operated by electricity.
- 519 Interaction of dispensing tip with surface upon which fluid is dispensed:**  
This subclass is indented under subclass 501. Apparatus wherein the end of the device which expels liquid physically contacts the device upon which the liquid is to be deposited.
- 520 Drawing of liquid into pipette by capillary action:**  
This subclass is indented under subclass 501. Apparatus wherein liquid is caused to flow into the device by the ability of a narrow interstice to draw a liquid due to surface tension upwards against the force of gravity.
- 521 Dispensing means:**  
This subclass is indented under subclass 501. Apparatus including a means to expel liquid from the device.
- 522 Pressure:**  
This subclass is indented under subclass 521. Apparatus wherein the means to expel liquid from the device is actuated by a force applied to the top surface of the liquid or a vacuum applied to the bottom of the liquid.
- 523 Gravity:**  
This subclass is indented under subclass 521. Apparatus where the means to expel liquid from the device is the force generated by the mass of the Earth.

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- 524 Tip:**  
This subclass is indented under subclass 501. Apparatus dealing with that portion of the device which first receives the liquid, and which last contacts the liquid during expulsion.
- 525 Removable:**  
This subclass is indented under subclass 524. Apparatus wherein the portion of the device which first receives the liquid and last contacts the liquid during expulsion is capable of being taken off the device.
- 526 Including storage rack therefore:**  
This subclass is indented under subclass 525. Apparatus including a structure for storing pipette tips
- 527 Including means for separating a constituent (e.g., extraction, etc.):**  
This subclass is indented under subclass 500. Apparatus for isolating in a different physical space a particular component of a gas or liquid compound or mixture.
- 528 Evaporator:**  
This subclass is indented under subclass 527. Apparatus including means for changing a liquid to a gas or vapor phase thereby isolating a constituent.
- 529 Operated at ambient temperature:**  
This subclass is indented under subclass 528. Apparatus wherein the transition from liquid to gas or vapor phases occurs at the temperature of its surroundings.
- 530 Heated:**  
This subclass is indented under subclass 528. Apparatus wherein a heat source is used to cause transition from liquid to gas or vapor phase.
- 531 Condenser:**  
This subclass is indented under subclass 527. Apparatus including means to change gas or a vapor to a liquid phase or to separate out combined liquids or liquids and solids in order to separate out specific constituents.
- 532 Cooling means:**  
This subclass is indented under subclass 531. Apparatus wherein the transition from gas or vapor phase to a liquid phase occurs at a temperature below that of its surroundings.
- 533 Gravity or centrifuge separation:**  
This subclass is indented under subclass 527. Apparatus for separation of various combined liquids or liquids from solids wherein separation is carried out by means of the gravitational pull of the Earth or accelerated separation by a device that rotates rapidly and uses centrifugal force to separate substances of different densities.
- 534 Filter:**  
This subclass is indented under subclass 527. Apparatus including means to trap or to pass a specific liquid or solid in order to separate out constituents.

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D. CHANGES TO THE DEFINITIONS**535 Porous media:**

This subclass is indented under subclass 534. Apparatus including a material which permits the movement of certain fluids or gases through it by way of pores or other passages.

**536 Tissue processing device:**

This subclass is indented under subclass 500. Apparatus including a device that processes tissue samples in different forms, either thin sections or deposits on a slide or similar carrier, for purposes such as histological analysis and cytological examination.

- (1) Note. This subclass takes apparatus involved in the analysis of non-viable cells or tissue.

## SEE OR SEARCH CLASS:

435, Chemistry: Molecular Biology and Microbiology, appropriate subclasses for apparatus involved in the analysis of tissue and cells which are viable/living (e.g., maintained or growing).

**537 Valve:**

This subclass is indented under subclass 500. Apparatus including a device that controls the movement of liquids or gases through pipes or other passages by opening or closing ports and channels.

## SEE OR SEARCH CLASS:

251, Valves and Valve Actuation, appropriate subclasses for valves and valve actuation in general.

**538 Including connector:**

This subclass is indented under subclass 537. Apparatus which further includes a pipe or other passage which links a valve to another part of the apparatus.

**539 With multiple discrete settings:**

This subclass is indented under subclass 537. Apparatus wherein the valve has several different distinct opening positions.

**540 Stator and rotor, petcock/stopcock, or slider:**

This subclass is indented under subclass 537. Apparatus that comprises a fixed member and a moveable member in contact with the fixed member which rotates about an axis either perpendicular or parallel to the fixed member or moves in parallel to the fixed member.

**541 Check:**

This subclass is indented under subclass 537. Apparatus wherein the valve has an internal structure allowing a unidirectional flow.

**542 Ball or seat:**

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D. CHANGES TO THE DEFINITIONS

This subclass is indented under subclass 537. Apparatus in which a ball with a bore hole passage is mechanically rotated relative to an opening to control flow or in which a seal or seat are mechanically moved relative to one another to control flow.

**543 Gas:**

This subclass is indented under subclass 537. Apparatus wherein the valve is specifically designed for the transfer of material in the gaseous state.

**544 Connector:**

This subclass is indented under subclass 500. Apparatus including a pipe or other passage which links one part of an apparatus to another part.

**545 Terminal end threaded or tapered:**

This subclass is indented under subclass 544. Apparatus wherein an end portion of the connector is provided with a continuous helical ridge or becomes progressively smaller.

**546 For needle, syringe, or capillary tube:**

This subclass is indented under subclass 544. Apparatus wherein the connector is specifically designed for use with a tube having a nozzle and piston for sucking in and ejecting liquid in a thin stream, often fitted with a pointed hollow end for piercing the skin in order to inject or withdraw bodily fluids, or a tube with an internal diameter of hair-like thinness.

**547 Container:**

This subclass is indented under subclass 500. Apparatus including a receptacle for holding material.

## SEE OR SEARCH CLASS:

206, Special Receptacle or Package, subclasses 363-370 for a container for tools employed for body treatment, subclasses 524.1-524.7 for a container of a specified material, and subclass 569 for a container for a test kit without specified chemical contents such as reagents or reactants.

**548 Used with centrifuge equipment:**

This subclass is indented under subclass 547. Apparatus consisting of a material holder that is to be used with a machine which turns a material holder round very quickly, causing the solids and liquids inside that material holder to separate by centrifugal action.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

533, for the centrifuge apparatus.

**549 Tube shaped vessel:**

This subclass is indented under subclass 547. Apparatus wherein the means for holding material is in the form of an elongated and cylindrical shape (e.g., test tube, etc.).

**550 Including closure or sealing mechanism:**

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This subclass is indented under subclass 549. Apparatus including a system for covering an opening in the elongated cylindrical member or for keeping out the outside atmosphere.

**551 Plate, sheet, dish or tray:**

This subclass is indented under subclass 547. A shallow container having a small depth to length or circumference ratio or a planar, smooth, flat, thin piece of material.

**552 Including a plurality of wells or receptacles:**

This subclass is indented under subclass 551. Apparatus wherein the plate or sheet includes distinct multiple test areas, pits, or containers.

SEE OR SEARCH CLASS:

210, Liquid Purification or Separation, appropriate subclasses for multiwell plates having liquid separation membrane structure.

**553 Microtitration plate:**

This subclass is indented under subclass 552. Apparatus specifically designed for use in a method for determining the concentration of a dissolved substance in terms of the smallest amount of reagent of known concentration required to bring about a given effect in reaction with a known volume of the test solution.

**554 Cartridge, cassette or cuvette:**

This subclass is indented under subclass 547. A case or housing having at least one space or slot for accommodating sample or reagent materials.

**555 Bag type containers:**

This subclass is indented under subclass 547. Apparatus which includes a flexible or collapsible sack or pouch (e.g., intravenous bags or specimen collection bags, etc.).

**556 Flask, bottle or beaker:**

This subclass is indented under subclass 547. A container having a narrow neck opening and wide bottom or a wide opening and cylindrical body.

SEE OR SEARCH CLASS:

215, Bottles and Jars, appropriate subclasses for bottles, jars, closures, and attachments therefor.

**557 Cup or crucible:**

This subclass is indented under subclass 547. A generally circular container with a narrow base and wide opening.

**558 Vial or ampoule:**

This subclass is indented under subclass 547. A cylindrical shaped container that has a removable or frangible closure.

**559 Including multiple internal compartments or baffles:**

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This subclass is indented under subclass 547. A container having more than one internal chamber.

**560 Holder:**

This subclass is indented under subclass 500. Apparatus comprising means to fix in an immobile position an object.

**561 For sample or specimen container:**

This subclass is indented under subclass 560. Apparatus comprising means to fix in an immobile position a removable device carrying biological, chemical, or physical items intended for analysis.

**562 For tube:**

This subclass is indented under subclass 561. Apparatus comprising means to fix in an immobile position a hollow cylinder closed at one end.

**563 For slide:**

This subclass is indented under subclass 561. Apparatus comprising means to fix in an immobile position a small plate used to support an item for analysis.

**564 For burette, pipette, or pipette tip:**

This subclass is indented under subclass 561. Apparatus comprising means to fix in an immobile position a hollow, cylindrical liquid volume measuring device or the terminal apparatus thereof.

**565 Housing:**

This subclass is indented under subclass 500. Apparatus comprising an enclosure for laboratory equipment or components thereof.

**566 Support:**

This subclass is indented under subclass 500. Apparatus comprising means to bear the weight of an object.

## SEE OR SEARCH CLASS:

211, Supports: Racks, appropriate subclasses for structures designed to support articles.

**567 Hood:**

This subclass is indented under subclass 500. Apparatus comprising a cover above laboratory equipment or components thereof.

**568 Stopper cover, plug, or seal:**

This subclass is indented under subclass 500. Apparatus including a device that closes the opening of a container.

**569 Covering multiple containers or wells:**

This subclass is indented under subclass 568. Apparatus including a closure device for an array of containers or a plurality of well openings.

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- 570 Penetrable cover (e.g., septum, etc.):**  
This subclass is indented under subclass 568. Apparatus wherein the closure device is self-sealing when punctured.
- 600 Including plural reaction stages:**  
This subclass is indented under subclass 129. Apparatus comprising multiple reaction means.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 141, for plural fluidized reaction beds.  
156, for plural pigment or carbon making apparatus.  
169, for waste gas purifier having plural stages.
- 601 Including plural parallel reaction stages with each stage in the form of a plate:**  
This subclass is indented under 600. Apparatus wherein the reaction stages in a planar form are arranged side by side in reaction zones and the reactions occur concurrently.
- 602 Plate-type laminated reactor:**  
This subclass is indented under 600. Apparatus wherein the chemical reaction takes place in a device in the form of a plate which is covered by at least one layer of the same or different material.
- 603 Microscale reactor:**  
This subclass is indented under 600. Apparatus wherein the chemical reaction takes place in a micro-structured device, (e.g., micro-reactor, micro-structured reactor, or micro-channel reactor).
- (1) Note. The typical lateral dimension is below 1 mm; the most typical form is micro-channels.
- 604 With gas contact means for degassing or agitating (e.g., sparging, etc.):**  
This subclass is indented under subclass 600. Apparatus for stirring or removing a volatile substance by entrainment from a liquid, or for increasing the liquid/gas contact area using compressed gas entering the liquid through a pipe.
- 605 With draft tube:**  
This subclass is indented under subclass 600. Apparatus comprising a longitudinally extending tubular means open at both ends located within the reaction chamber and providing fluid recirculation within the reaction chamber via fluid movement through the tube.
- 606 With multiphase mixing means:**  
This subclass is indented under subclass 600. Apparatus comprising means to blend substances in different physical states, e.g., a mixing chamber for a liquid and a gas.



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This subclass is indented under subclass 600. Apparatus comprising means to ensure a steady flow and uniform distribution of fluids, or an apparatus comprising a horizontal shallow container to collect fluids from an upstream reaction stage.

- (1) Note. A distributor can be a distribution plate or tray at the top of the reactor or between superimposed catalyst beds.

**608 With separation or purification means (e.g., rectification, evaporation, ion exchanger, extraction, settler, absorption, recrystallization, etc.):**

This subclass is indented under subclass 600. Apparatus including means to segregate components from a mixture or to remove an impurity from a mixture.

**609 Stripper tower:**

This subclass is indented under subclass 608. Apparatus wherein at least one stage includes a physical separation process to remove one or more components from a liquid stream through entrainment by a vapor stream.

**610 Distillation means (e.g., retort, etc.):**

This subclass is indented under subclass 608. Apparatus including means for separating components of the mixture based on volatility differences, by successive steps of evaporation and subsequent condensation.

**611 Scrubbing:**

This subclass is indented under subclass 608. Apparatus including means for separating components of the mixture which uses a scrubbing solution or slurry for removing or neutralizing a specific particle or gas from a gas stream.

- (1) Note. A scrubbing solution can be water or a solution of a reagent for a certain target compound.

**612 Absorption:**

This subclass is indented under subclass 608. Apparatus wherein the purification or separation means includes a bibulous material for taking up a component of the mixture.

**613 Cyclone separator:**

This subclass is indented under subclass 608. Apparatus wherein the purification or separation means includes a device for removing small or powdered solids from a fluid by centrifugal force.

**614 Condenser:**

This subclass is indented under subclass 608. Apparatus wherein the purification or separation includes a cooling means whereby a gas-phase component of the mixture is cooled to turn it into a liquid phase.

**615 Condenser downstream of a heat exchanging means:**

This subclass is indented under subclass 614. Apparatus wherein the condenser is positioned following a heat exchanging means.

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This subclass is indented under subclass 608. Apparatus wherein the purification or separation means includes a permeable material, (e.g., a porous material, etc., which traps or passes a specific substance).

**617 Membrane separation (e.g., palladium membrane hydrogen purifier, etc.):**

This subclass is indented under subclass 616. Apparatus including means for segregating components of the mixture by a selective barrier impermeable to a group of particles or substances.

**618 Including product separation or purification means:**

This subclass is indented under subclass 608. Apparatus including means for segregating a product from a reaction stream, or removing an impurity from a product.

**619 Combined with contact material regenerating means (e.g., regenerating catalyst, etc.):**

This subclass is indented under subclass 600. Apparatus wherein a contact material is reproduced or reactivated.

- (1) Note. Contact material has a relatively large contact surface area within a reaction zone wherein a large surface area presents multiple reaction sites for contact by the reaction mixture and, thereby, enhances the rate or the completeness of the reaction.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 620, for recycling reactants.  
631, for plural solid, extended surface, fluid contact reaction stages.  
223, for contact material regenerating means, per se.

**620 Combined with recycling means (e.g., recycling products, reactants, etc.):**

This subclass is indented under subclass 600. Apparatus additionally comprising recovering and reusing at least a portion of the product stream or reaction mass in the reaction chamber.

**621 Including reaction heat recovery or recycling:**

This subclass is indented under subclass 620. Apparatus wherein the thermal energy from one reaction stage is captured and may be reused.

**622 Including external recycle loop:**

This subclass is indented under subclass 620. Apparatus wherein the recycling means includes a conduit located outside of the reaction chamber.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 234, for an external recycle loop, per se.

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- 623 Including a boiler:**  
This subclass is indented under subclass 600. Apparatus comprising a vessel in which a fluid is heated to boiling.
- 624 Including a mechanical means for transportation of material (e.g., conveyor, turntable, truck, etc.):**  
This subclass is indented under subclass 600. Apparatus comprising a mechanical apparatus for transporting material (e.g., feedstock, reactant, product, etc.).
- 625 Including reformer reactor:**  
This subclass is indented under subclass 600. Apparatus wherein one of the reaction stages produces hydrogen from hydrocarbons in the presence of a catalyst.
- SEE OR SEARCH CLASS:
- 48, Gas: Heating and Illuminating, appropriate subclasses for reforming apparatus specific for the generation of a fuel gas, such as hydrogen, for the purposes of heating or illuminating.
- 429, Chemistry: electrical current producing apparatus, product, and process, appropriate subclasses for the combination of a fuel cell and a reactor.
- 626 Including water gas shift reaction:**  
This subclass is indented under subclass 625. Apparatus wherein within the reformer reactor, carbon monoxide reacts with water vapor to produce carbon dioxide and hydrogen.
- 627 Combined with selective or preferential oxidation reactor:**  
This subclass is indented under subclass 625. Apparatus wherein the reformer reactor is combined with a reactor within which a specific reductant gas component is oxidized on a catalyst, e.g., the reactor preferentially oxidizes carbon monoxide using a heterogeneous catalyst.
- 628 Autothermal:**  
This subclass is indented under subclass 625. Apparatus wherein the heat produced by an exothermic reaction is absorbed by an endothermic reaction, e.g., oxygen and carbon dioxide or oxygen and steam react with methane to produce a hydrogen-containing gas mixture.
- 629 Steam reformer:**  
This subclass is indented under subclass 625. Apparatus wherein the reformer reactor uses water vapor in the hydrocarbon reformation to produce hydrogen gas in a product mixture.
- 630 Discrete sequential reaction stages:**  
This subclass is indented under subclass 600. Apparatus having means for subjecting the reaction stream to multiple separate successive reaction stages.

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D. CHANGES TO THE DEFINITIONS**631 Plural solid, extended surface, fluid contact reaction stages (e.g., inert Raschig rings, particulate sorbent, particulate or monolithic catalyst, etc.):**

This subclass is indented under subclass 630. Apparatus including means providing a relatively large solid contact surface area within the reaction zone presents multiple reaction sites for contact by the reaction mixture and, thereby, enhances the rate or the completeness of the reaction.

SEE OR SEARCH THIS CLASS, SUBCLASS:

177, for this apparatus used in a waste gas purifier.

211, for this structure, per se.

**632 With down-flow fixed bed:**

This subclass is indented under subclass 631. Apparatus comprising an immobilized solid extended surface in contact with a reaction stream moving downward by gravity

**633 Including a unitary, monolithic catalyst bed:**

This subclass is indented under subclass 631. Apparatus wherein the extended surface contact means is a catalyst in the form of a unitary (i.e., non-particulate) contact bed, e.g., a monolithic honeycomb coated with a catalyst, catalyst coated metallic screen, etc.

**634 With metal catalyst (e.g., metal oxide, etc.):**

This subclass is indented under subclass 631. Apparatus wherein the extended surface contact means is a catalyst that contains a metal element.

**635 Including random inert packing (e.g., Raschig rings, balls, saddle rings, etc.):**

This subclass is indented under subclass 631. Apparatus wherein the extended surface contact means include pieces of chemically inactive material used in large numbers and packed randomly.

(1) Note. Raschig rings are usually ceramic or metal and provide a large surface area for interaction between liquid and gas or vapor.

**636 At least one reaction stage formed of a fixed, annularly shaped bed of contact material:**

This subclass is indented under subclass 631. Apparatus wherein at least one of the extended surface contact means is in the form of a stationary, ring shaped packing.

**637 With means for directing reaction stream therethrough substantially perpendicular to the longitudinal axis of the bed:**

This subclass is indented under 636. Subject matter wherein a reactor with at least one of the extended surface contact means in the form of a stationary, ring shaped packing includes means for directing the flow of reactants in a radial direction through the packing.

SEE OR SEARCH THIS CLASS, SUBCLASS:

181, for this structure in a waste gas purifier.

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D. CHANGES TO THE DEFINITIONS

- 638 Superimposed reaction stages in single reaction chamber:**  
This subclass is indented under subclass 631. Apparatus wherein the reaction stages are located one over the other and within a single reaction chamber.
- 639 Wherein at least one reaction stage is upstream or downstream of parallel stages (e.g., AA-B, etc.):**  
This subclass is indented under subclass 630. Apparatus wherein reaction stages which are arranged side by side in the reaction zone and the reactions occur concurrently are positioned preceding or following a separate reaction stage.
- 640 With parallel repeat of a sequence of reaction stages (e.g., AB-AB, etc.):**  
This subclass is indented under subclass 630. Apparatus wherein at least two sequences of separate successive reaction stages are arranged side by side in the reaction zone.
- 641 With each stage in the form of a reaction tube:**  
This subclass is indented under subclass 630. Apparatus wherein each reaction stage has a relatively high length-to-diameter ratio.
- 642 Wherein the reaction stages are the same:**  
This subclass is indented under subclass 630. Apparatus wherein the reaction stages are repeated, e.g., the same structure, the same catalyst, etc.
- 643 Including thermal combustion means:**  
This subclass is indented under subclass 630. Apparatus wherein one of the discrete sequential reaction stages is thermal oxidative decomposition of a combustible substance.
- 644 Reaction stages located within single reaction chamber:**  
This subclass is indented under subclass 630. Apparatus wherein all the sequential reaction stages are located in a single confining means.
- 645 With baffle (i.e., deflector plate):**  
This subclass is indented under subclass 644. Apparatus comprising a sheet-like structure for directing fluid flow in the single reaction chamber.
- 646 With heating or cooling means:**  
This subclass is indented under subclass 644. Apparatus wherein a heat exchange occurs in the single reaction chamber.
- 647 And means downstream of a stage for internally injecting a reactant into a reaction stream for reaction in a subsequent stage, or injecting an internal quench stream into a reaction stream passing between stages:**  
This subclass is indented under subclass 644. Apparatus having means after a reaction stage for introducing either (a) a reactant into the reaction fluid within the reaction chamber for reaction therewith in a later reaction stage or (b) a quench stream into the reaction fluid within the reaction chamber as the reaction passes between stages.

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D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBCLASS:

172, for waste gas purifier having plural chemical stages and means downstream of a stage for injecting a reactant into the gas for interaction in a subsequent stage.

**648 Means within reaction chamber for redistributing reaction stream as it passes between adjacent stages:**

This subclass is indented under subclass 644. Apparatus having means within reaction chamber for redistributing the reaction fluid; i.e., for equalizing or otherwise modifying the velocity profile of the reaction fluid, as it passes between adjacent reaction stages.

**649 With the provision of heating or cooling means:**

This subclass is indented under subclass 630. Apparatus comprising means for transferring thermal energy in any of the sequential reaction stages.

**650 Including plural parallel reaction stages with each stage in the form of a reaction tube:**

This subclass is indented under subclass 600. Apparatus wherein the reaction stages are arranged side by side in reaction zones with relatively high length-to-diameter ratios and the reactions occur concurrently.

SEE OR SEARCH THIS CLASS, SUBCLASS:

222, for parallel passages through a monolithic mass; e.g., honeycomb catalyst, etc.

**651 Tubular stages in a single reaction chamber:**

This subclass is indented under subclass 650. Apparatus wherein the reaction tubes are located within a single reaction confining area, e.g., a tube and shell reactor with the reactant flowing through the tubes.

**652 Reaction tubes filled with catalyst particles:**

This subclass is indented under subclass 651. Apparatus wherein the reaction tube contains a catalyst in a particulate form.

**653 Reaction tubes containing structured catalyst:**

This subclass is indented under subclass 651. Apparatus wherein the catalyst in the reaction tube has a specific solid shape.

**654 Reaction tubes having catalyst coating:**

This subclass is indented under subclass 651. Apparatus wherein the tubular surface is covered with a layer or film of catalyst.

**655 Individual supply of reactants for each reaction tube:**

This subclass is indented under subclass 651. Apparatus wherein the starting materials are fed separately to each tube.

**656 With a solid reactant:**

This subclass is indented under subclass 651. Apparatus wherein the starting material is of stable shape and volume.

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D. CHANGES TO THE DEFINITIONS**657 Operating at positive pressure:**

This subclass is indented under subclass 651. Apparatus wherein the reaction stage is functioning above ambient pressure.

**658 With tube plate (e.g., supporting plate):**

This subclass is indented under subclass 651. Apparatus wherein the tubes are fixed on a planar structure.

**659 With heating or cooling means:**

This subclass is indented under subclass 651. Apparatus wherein the single reaction chamber includes a means for thermal energy transfer.

**FOREIGN ART COLLECTIONS**

The definitions below correspond to abolished subclasses from which these collections were formed. See the Foreign Art Collection schedule of this class for specific correspondences. [Note: The titles and definitions for indented art collections include all the details of the one(s) that are hierarchically superior.]

**FOR 100 Structured visual or optical indicator, per se (422/55):**

This foreign art collection is indented under unnumbered placeholder 422/50. Foreign art collection comprising (a) a structured indicator; i.e., an indicator which is more than a composition, per se, and has structure, or (b) liquid crystals, per se, which give a visual or optical indication of the presence or amount of material to be tested in the sample.

- (1) note. visual or optical indicators, per se, include color indicators such as test papers or test strips and columns which give a visual or optical indication (e.g., color) of the presence or amount of material in the sample.

**FOR 101 Having reagent in absorbent or bibulous substrate (422/56):**

This foreign art collection is indented under FOR 100. Foreign art collection for apparatus wherein indicating reagent is contained in absorbent or bibulous carrier or substrate; e.g., a dip-stick, test paper, wick, etc.

**FOR 102 Having coated reagent (422/57):**

This foreign art collection is indented under FOR 100. Foreign art collection for apparatus wherein the reagent is coated on the surface of a carrier or substrate.

**FOR 103 In holder or container having special form (422/58):**

This foreign art collection is indented under FOR 100. Foreign art collection for apparatus wherein the indicator is contained in a holder or container having a special form or design; e.g., test plates, dish, tray, slide, etc.

**FOR 104 Column (422/59):**

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D. CHANGES TO THE DEFINITIONS

This foreign art collection is indented under FOR 103. Foreign art collection for apparatus in the form of a column-like structure.

**FOR 105 Having plural-layered material (422/60):**

This foreign art collection is indented under FOR 104. Foreign art collection for apparatus having material consisting of multiple distinct layers.

**FOR 106 Test package or kit (422/61):**

This foreign art collection is indented under unnumbered placeholder 422/50. Foreign art collection wherein the apparatus comprising (a) a package containing reagents and all necessary ingredients to perform a test or (b) self-contained test kits for field testing, usually having dosage amounts of each material needed.

**FOR 107 Miscellaneous laboratory apparatus and elements, per se (422/99):**

This foreign art collection is indented under unnumbered placeholder 422/50. Foreign art collection for apparatus specifically designed for use in a laboratory.

**FOR 108 Pipette or other volumetric fluid transfer means (422/100):**

This foreign art collection is indented under FOR 107. Foreign art collection for apparatus having means for volumetrically transferring a fluid.

**FOR 109 Including means for separating a constituent; e.g., filter, condenser, extractor, etc. (422/101):**

This foreign art collection is indented under FOR 107. Foreign art collection for apparatus having means for separating a constituent by filtration, condensation, extraction, etc.

**FOR 110 Container (422/102):**

This foreign art collection is indented under FOR 107. Foreign art collection for apparatus having means for holding material.

**FOR 111 Valve or connector structure (422/103):**

This foreign art collection is indented under FOR 107. Foreign art collection for apparatus having valve or connector structure or this structure, per se.

**FOR 112 Holder, support, housing, or hood (422/104):**

This foreign art collection is indented under FOR 107. Foreign art collection for apparatus for supporting, maintaining in a desired relationship with other structure, or surrounding other laboratory structures.

**FOR 113 Including plural reaction stages (422/188):**

This foreign art collection is indented under unnumbered placeholder 422/129. Foreign art collection for apparatus comprising multiple reaction means.

**FOR 114 And means providing discrete sequential reaction stages, e.g., train, etc. (422/189):**

This foreign art collection is indented under FOR 113. Foreign art collections for apparatus having means for subjecting the reaction stream to multiple separate successive reaction stages.



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D. CHANGES TO THE DEFINITIONS**FOR 115 Plural solid, extended surface, fluid contact reaction stages each containing; e.g., inert raschig rings, particulate sorbent, particulate or monolithic catalyst, etc. (422/190):**

This foreign art collection is indented under FOR 114. Foreign art collection for apparatus including solid extended surface fluid contact reaction means, i.e., means providing a relatively large solid contact surface area within the reaction zone wherein large surface area within the reaction zone wherein large surface area presents multiple reaction sites for contact by the reaction mixture and, thereby, enhance the rate and/or the completeness of the reaction, including; e.g., inert raschig rings, particulate absorbent, etc.

**FOR 116 Superimposed reaction stages in single reaction chamber (422/191):**

This foreign art collection is indented under FOR 115. Foreign art collection for apparatus wherein the reaction stages are located one over the other and within a single reaction chamber.

**FOR 117 At least one reaction stage formed of fixed, annularly shaped bed of contact material and means directing reaction stream therethrough substantially perpendicular to longitudinal axis of bed (422/192):**

This foreign art collection is indented under FOR 115. Foreign art collection for apparatus wherein at least one of the extended surface contact means is in the form of a relatively fixed, annularly shaped bed of contact material and including means for directing the flow of reactants through the contact bed in a direction substantially perpendicular to the longitudinal axis of the contact bed.

**FOR 118 Reaction stages located within single reaction chamber (422/193):**

This foreign art collection is indented under FOR 114. Foreign art collection for apparatus wherein the reaction stages are located in a single confining means.

**FOR 119 And means downstream of a stage for internally injecting a reactant into a reaction stream for interreaction in a subsequent stage, or injecting an internal quench stream into reaction stream passing between stages (422/194):**

This foreign art collection is indented under FOR 118. Foreign art collection for apparatus having means after a reaction stage for injecting either (a) a reactant into the reaction stream within the reaction chamber for reaction therewith in a subsequent reaction stage or (b) a quench stream into the reaction stream within the reaction chamber as the reaction passes between stages.

**FOR 120 Means within reaction chamber redistributing reaction stream as it passes between adjacent stages (422/195):**

This foreign art collection is indented under FOR 118. Foreign art collection for apparatus having means within reaction chamber for redistributing the reaction stream; i.e., for equalizing or otherwise modifying the velocity profile of the reaction stream, as it passes between adjacent reaction stages.

**FOR 121 Including plural parallel reaction stages with each stage in form of a reaction tube (422/196):**

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D. CHANGES TO THE DEFINITIONS

This foreign art collection is indented under FOR 113. Foreign art collection for apparatus wherein the reaction stages are formed by parallel (i.e., nonsequential) reaction tubes; i.e., reaction zones with relatively high length-to-diameter ratios.

**FOR 122 Tubular stages in single reaction chamber (422/197):**

This foreign art collection is indented under FOR 121. Foreign art collection for apparatus wherein the tubes are located within a single reaction confining area; e.g., a tube and shell reactor with the reactant flowing through the tubes.

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D. CHANGES TO THE DEFINITIONS

CLASS 424 – DRUG, BIO-AFFECTING AND BODY TREATING COMPOSITIONS

Definitions Modified

Subclass 1.11: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving or Sterilizing, subclasses 50+ for apparatus for in vitro quantitative or qualitative chemical analysis and laboratory devices, especially subclass 430 for in vitro test package or kit (e.g., radioassay).

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D. CHANGES TO THE DEFINITIONS

CLASS 427 – COATING PROCESSES

Definitions Modified

Subclass 2.1: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, for chemical apparatus which may have an in vitro medical use such as subclasses 50+ for analyzer, indicator, or lab device (subclasses 400-429 for structured visual or optical indicators such as test papers, strips, or columns).

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D. CHANGES TO THE DEFINITIONS

CLASS 431 – COMBUSTION

Definitions Modified

Subclass 268: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 122, 139+, 171, 177+, 631-638, and 211 for apparatus for carrying out a chemical reaction in which a catalyst is used.

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D. CHANGES TO THE DEFINITIONS

CLASS 435 – CHEMISTRY: MOLECULAR BIOLOGY AND MICROBIOLOGY

Definitions Modified

Subclass 287.7: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 400-429 for structured visual or optical indicators, especially subclass 420 for structured visual or optical indicator having a reagent in absorbent or bibulous substrate.

Subclass 287.9: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 400-429 for structured visual or optical indicators, especially subclass 425 for a structured visual or optical indicator having a coated reagent layer.

Subclass 288.1: Under SEE OR SEARCH CLASS:

Delete :

The reference to Class 422

Insert:

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D. CHANGES TO THE DEFINITIONS

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 547 for miscellaneous laboratory containers, especially subclass 549 for tube shaped vessels and 556 for flasks, bottles or beakers.

Subclass 288.3: Under SEE OR SEARCH CLASS:

Delete :

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 547 for miscellaneous laboratory containers, especially subclass 551 for plates, sheets, dishes or trays.

Subclass 294.1: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, particularly subclasses 600 for chemical reactors including plural reaction stages of general use.

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D. CHANGES TO THE DEFINITIONS

CLASS 436 – CHEMISTRY: ANALYTICAL AND IMMUNOLOGICAL TESTING

Definitions Modified

Subclass 165: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 402 for apparatus for carrying out the process of this subclass.

Subclass 169: Under SEE OR SEARCH CLASS:

Delete :

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 420 for equivalent apparatus.

Subclass 170: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 421 for apparatus for carrying out the process of this subclass.



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D. CHANGES TO THE DEFINITIONS

Subclass 177: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 527 for apparatus for carrying out the process of this subclass.

Subclass 180: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 501 for apparatus for carrying out the process of this subclass.

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D. CHANGES TO THE DEFINITIONS

CLASS 454 –VENTILATION

Definitions Modified

Subclass 56: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 565 and 567 for a laboratory housing or hood, per se.

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D. CHANGES TO THE DEFINITIONS

CLASS 502 – CATALYST, SOLID SORBENT, OR SUPPORT THEREFOR: PRODUCT OR PROCESS OF MAKING

Definitions Modified

Class Definition: Under SECTION IV, REFERENCES TO OTHER CLASSES, SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 30, 69+, 88+, 122, 177+, 631-638, 211+, and 312 for a process using, or apparatus including, a catalyst or sorbent. (Class Which May Have Catalytic or Sorbent Functions)

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D. CHANGES TO THE DEFINITIONS

CLASS 506 - COMBINATORIAL, CHEMISTRY TECHNOLOGY: METHOD, LIBRARY, APPARATUS

Definitions Modified

Class Definition: Under SECTION III, REFERENCES TO OTHER CLASSES, SEE OR SEARCH CLASS

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 50 through 570 for apparatus for performing an analysis which involves a chemical or physical reaction not elsewhere provided for and subclasses 129-242 for carrying out chemical reactions.

Subclass 33: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 50 through 570 for apparatus for performing an analysis which involves a chemical or physical reaction not elsewhere provided for and subclasses 129-242 for carrying out chemical reactions.

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D. CHANGES TO THE DEFINITIONS

CLASS 530 – CHEMISTRY: NATURAL RESINS OR DERIVATIVES; PEPTIDES OR  
PROTEINS; LIGNINS OR REACTION PRODUCTS THEREOF

Definitions Modified

Subclass 344: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 422

Insert:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or  
Sterilizing, subclass 527 for apparatus for carrying out the process of this  
subclass.

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D. CHANGES TO THE DEFINITIONS

CLASS 606 – SURGERY

Definition Modified

Subclass 181:

Insert:

SEE OR SEARCH CLASS:

422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclass 410 for a lancet used to transfer a sample to an indicator reagent structure.