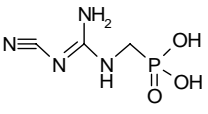
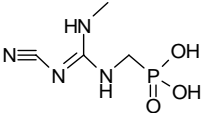
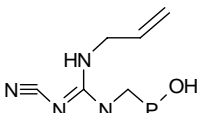
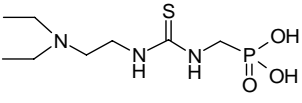
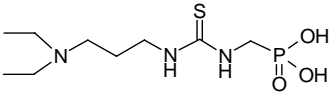
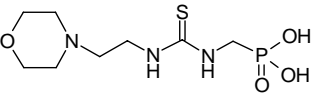
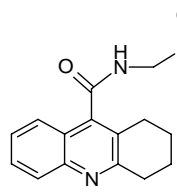
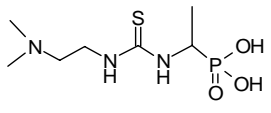
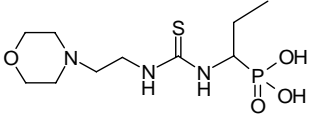
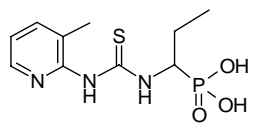
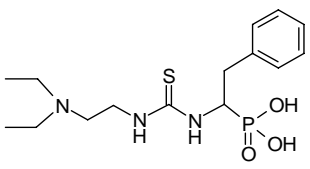
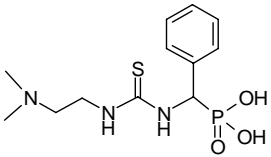
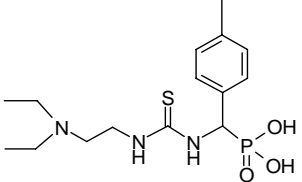
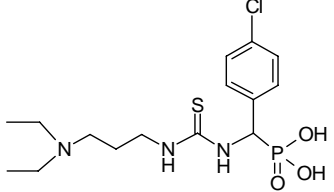
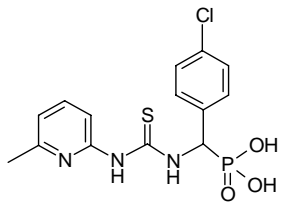
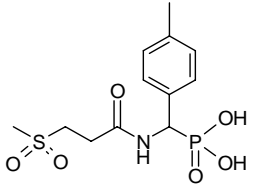
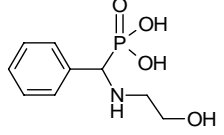
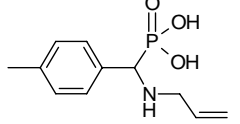
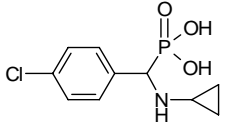
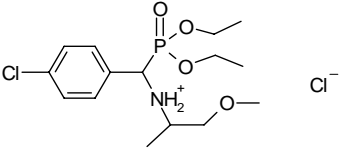
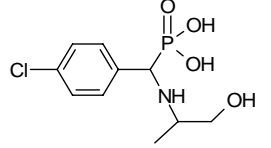
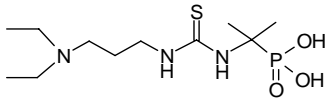
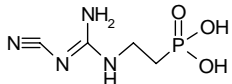
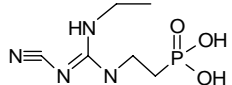
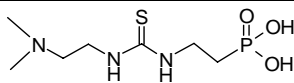
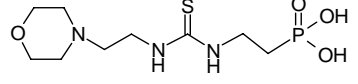
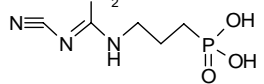
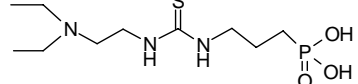
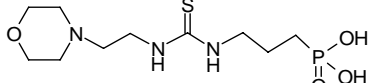
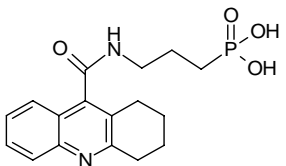
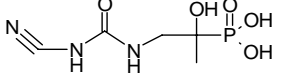
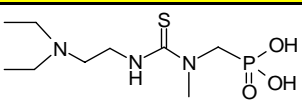
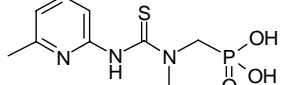
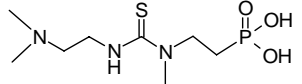
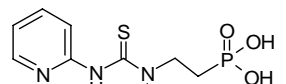
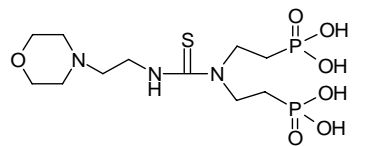
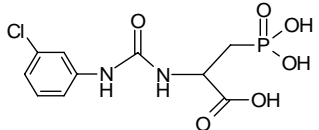
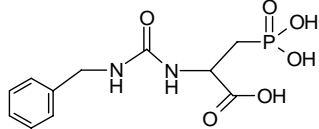
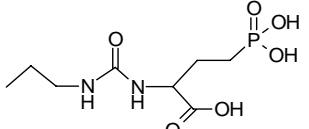
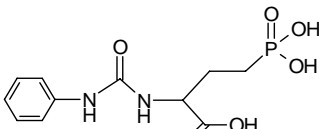
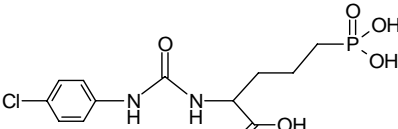
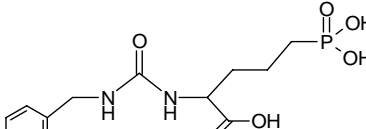
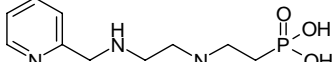
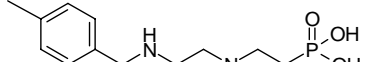
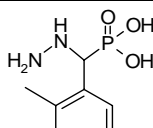
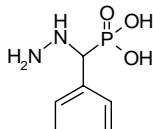


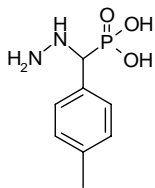
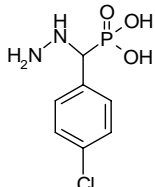
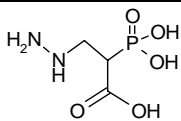
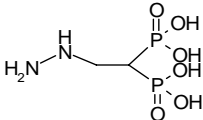
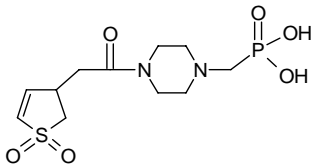
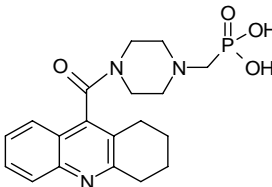
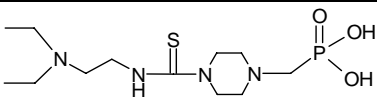
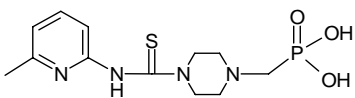
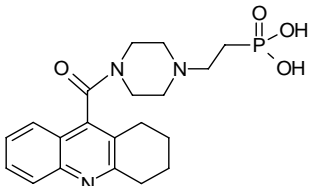
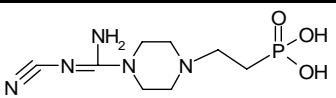
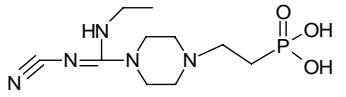
ID Number	Structure	Formula	M.W.	m.p. °C	Remarks
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A01-36A-5062		C3H7N4O3P	178,09	309-310	colorless crystals
A01-36A-5063		C4H9N4O3P	192,12	233-234	colorless crystals
A01-36A-5064		C6H11N4O3P	218,15	196-198	colorless crystals
A01-70-4911		C8H20N3O3PS	269,30	184-186	colorless crystals
A01-70-4912		C9H22N3O3PS	283,33	197-200	colorless crystals
A01-70-4913		C8H18N3O4PS	283,29	207-208	colorless crystals
A01-74-5047		C15H17N2O4P	320,29	289-292	cream-colored crystals
A02-70-4915		C7H18N3O3PS	255,28	230-232	colorless crystals
A03-70-4916		C10H22N3O4PS	311,34	208-209	colorless crystals
A03-70-4917		C10H16N3O3PS	289,30	175-178	colorless crystals
A04-70-4919		C15H26N3O3PS	359,43	224-225	colorless crystals
A05-70-4920		C12H20N3O3PS	317,35	272-274	colorless crystals

SELECTED RECENT COMPOUNDS.xls

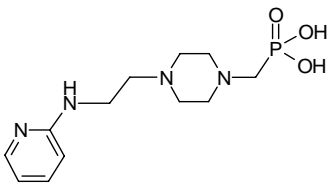
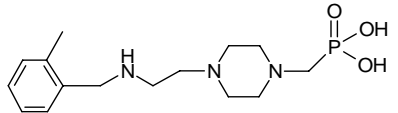
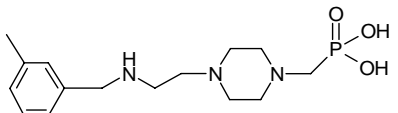
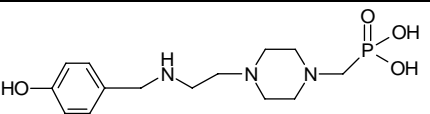
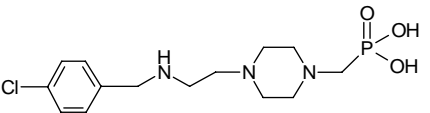
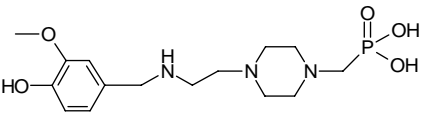
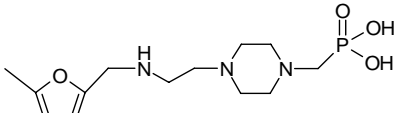
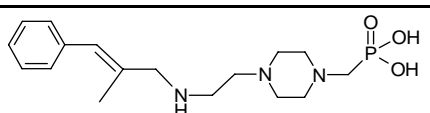
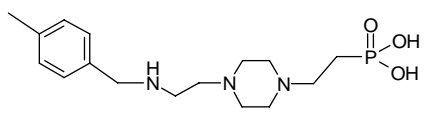
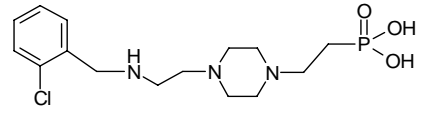
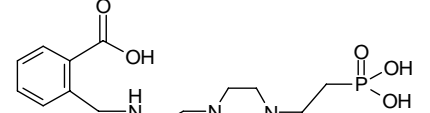
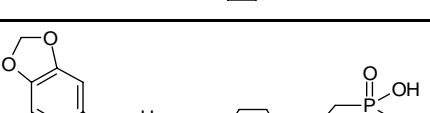
A05-70-4921		C ₁₅ H ₂₆ N ₃ O ₃ PS	359,43	255-258	colorless crystals
A05-70-4922		C ₁₅ H ₂₅ ClN ₃ O ₃ PS	393,88	215-216	colorless crystals
A05-70-4923		C ₁₄ H ₁₅ ClN ₃ O ₃ PS	371,78	254-256	colorless crystals
A05-70-4946		C ₁₂ H ₁₈ NO ₆ PS	335,32	166-168	colorless crystals
A05-74-5048		C ₉ H ₁₄ NO ₄ P	231,19	303-305	colorless crystals
A05-74-5049		C ₁₁ H ₁₆ NO ₃ P	241,23	188-190	colorless crystals
A05-74-5051		C ₁₀ H ₁₃ ClNO ₃ P	261,65	185-187	colorless crystals
A05-74-5052		C ₁₅ H ₂₆ Cl ₂ N ₂ O ₄ P	386,26	120-122	colorless crystals
A05-74-5053		C ₁₀ H ₁₅ ClNO ₄ P	279,66	190-192	colorless crystals
A06-70-4918		C ₁₁ H ₂₆ N ₃ O ₃ PS	311,39	284-286	colorless crystals

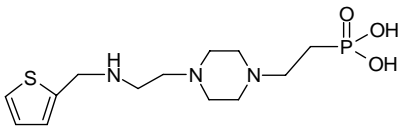
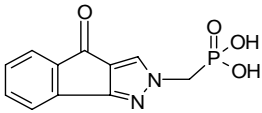
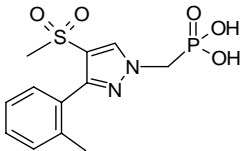
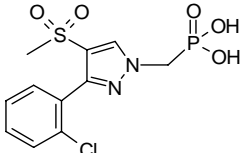
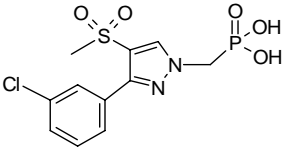
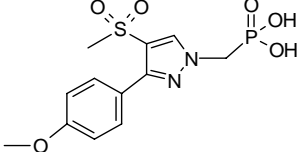
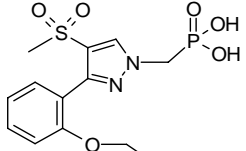
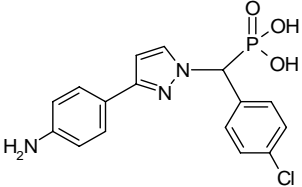
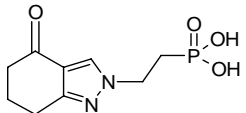
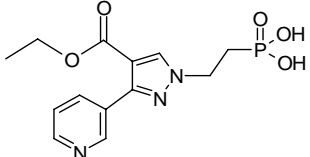
A07-36A-5065		C4H9N4O3P	192,12	194-196	colorless crystals
A07-36A-5066		C6H13N4O3P	220,17	143-146	colorless crystals
A07-70-4924		C7H18N3O3PS	255,28	202-203	colorless crystals
A07-70-4925		C9H20N3O4PS	297,32	230-231	colorless crystals
A09-36A-5067		C5H11N4O3P	206,14	201-203	colorless crystals
A09-70-4926		C10H24N3O3PS	297,36	219-220	colorless crystals
A09-70-4927		C10H22N3O4PS	311,34	231-232	colorless crystals
A09-74-5054		C17H21N2O4P	348,34	245-247	colorless crystals
A13-36A-5055		C5H10N3O5P	223,13	324-327	colorless crystals
B	N-ALKYL-AMINO-PHOSPHONIC ACIDS and N-derivatives				
B01-70-4929		C9H22N3O3PS	283,33	187-189	colorless crystals
B01-70-4930		C9H14N3O3PS	275,27	128-130	colorless crystals
B03-70-4931		C8H20N3O3PS	269,30	212-214	colorless crystals
B03-70-4932		C9H14N3O3PS	275,27	173-175	colorless crystals
C	AMINO- and IMINO-DIPHOSPHONIC ACIDS and N-derivatives				
C02-70-4935		C11H25N3O7P2S	405,35	224-226	colorless crystals

D	AMINO- and IMINO-CARBOXY-PHOSPHONIC ACIDS and N-derivatives				
D02-51-4872		C10H12ClN2O6P	322,64	210-212	colorless crystals
D02-51-4873		C11H15N2O6P	302,23	198-200	colorless crystals
D03-51-4874		C8H17N2O6P	268,21	141-143	colorless crystals
D03-51-4875		C11H15N2O6P	302,23	38-40	colorless crystals
D04-51-4878		C12H16ClN2O6P	350,70	200-201	colorless crystals
D04-51-4879		C13H19N2O6P	330,28	170-172	colorless crystals
F	DIAMINO-PHOSPHONIC and DIAMINO-DIPHOSPHONIC ACIDS and N-derivatives				
F01-73-4943		C10H18N3O3P	259,25	168-170	colorless crystals
F01-73-5046		C12H21N2O3P	272,29	250-255	colorless crystals
G	HYDRAZINO-PHOSPHONIC ACIDS and carbonyl derivatives				
G01-00-B7491		C8H13N2O3P	216,18	190-192	colorless crystals
G01-00-B7492		C8H13N2O3P	216,18	194-196	colorless crystals

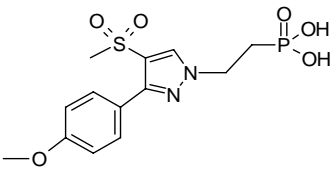
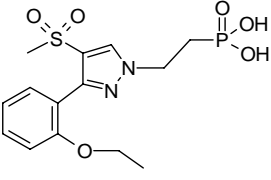
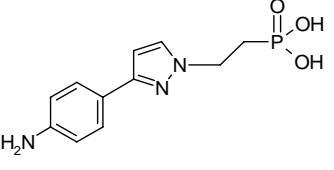
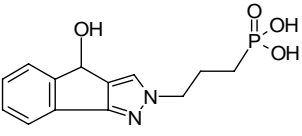
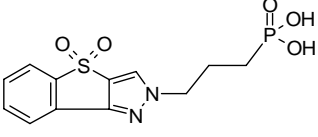
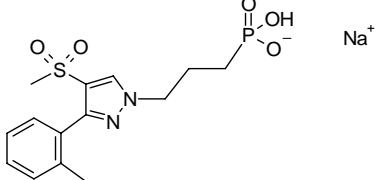
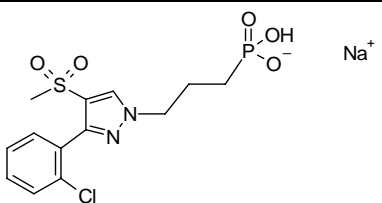
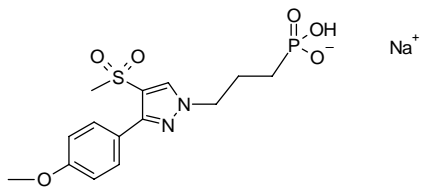
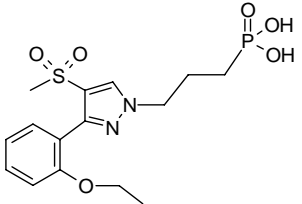
G01-00-B7493		C8H13N2O3P	216,18	184-187	colorless crystals
G01-00-B7494		C7H10ClN2O3P	236,60	200-202	colorless crystals
G08-00-B7421		C3H9N2O5P	184,09	245-246	colorless crystals
G09-00-B7444		C2H10N2O6P2	220,06	264-271	colorless crystals hygroscopic
H	PIPERAZINE-ALKYL-PHOSPHONIC ACIDS and 4-N-derivatives				
H01-26-4865		C11H19N2O6PS	338,32	151-153	colorless crystals
H01-26-5056		C19H24N3O4P	389,39	261-263	colorless crystals
H01-70-4933		C12H27N4O3PS	338,41	178-180	colorless crystals
H01-70-4934		C12H19N4O3PS	330,35	257-260	colorless crystals
H02-26-5057		C20H26N3O4P	403,42	240-242	colorless crystals
H02-36A-5068		C8H16N5O3P	261,22	274-276	colorless crystals
H02-36A-5069		C10H20N5O3P	289,28	161-164	colorless crystals

SELECTED RECENT COMPOUNDS.xls

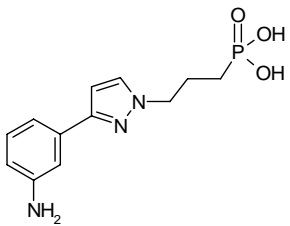
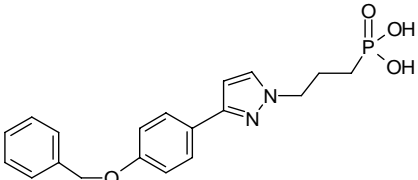
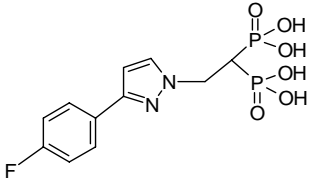
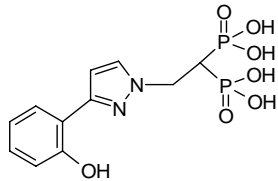
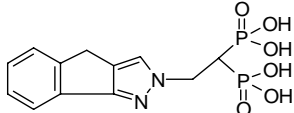
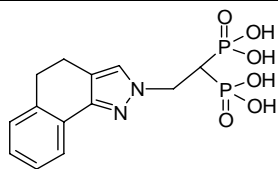
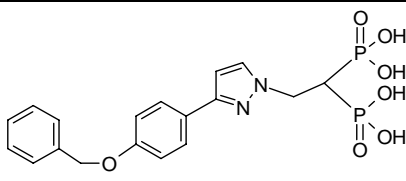
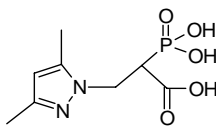
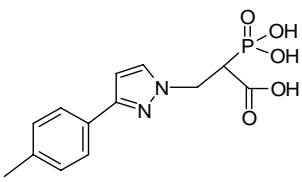
H04-63-4907		C12H21N4O3P	300,30	109-111	colorless crystals
H04-63-5010		C15H26N3O3P	327,37	145-148	colorless crystals
H04-63-5011		C15H26N3O3P	327,37	118-120	colorless crystals
H04-63-5012		C14H24N3O4P	329,34	183-186	colorless crystals
H04-63-5013		C14H23ClN3O3P	347,78	240-245	colorless crystals
H04-63-5014		C15H26N3O5P	359,37	216-218	colorless crystals
H04-63-5015		C13H24N3O4P	317,33	127-129	colorless crystals
H04-63-5016		C17H28N3O3P	353,40	128-131	colorless crystals
H05-63-5017		C16H28N3O3P	341,39	121-123	colorless crystals
H05-63-5018		C15H25ClN3O3P	361,81	189-191	colorless crystals
H05-63-5019		C16H26N3O5P	371,38	247-250	colorless crystals
H05-63-5020		C16H26N3O5P	371,38	250-253	colorless crystals

H05-63-5021		C13H24N3O3PS	333,39	250-254	colorless crystals
L PYRAZOLE-ALKYL-PHOSPHONIC ACIDS					
L01-58-4883		C11H9N2O4P	264,18	269-272	orange crystals
L01-58-4951		C12H15N2O5PS	330,30	263-267	colorless crystals
L01-58-4952		C11H12ClN2O5PS	350,72	260-263	colorless crystals
L01-58-4953		C11H12ClN2O5PS	350,72	204-208	colorless crystals
L01-58-4954		C12H15N2O6PS	346,30	254-257	colorless crystals
L01-58-4955		C13H17N2O6PS	360,33	235-237	colorless crystals
L02-58-5058		C16H15ClN3O3P	363,74	180-185	cream-colored crystals
L03-58-4886		C9H13N2O4P	244,19	230-232	colorless crystals
L03-58-4888		C13H16N3O5P	325,26	175-178	cream-colored crystals

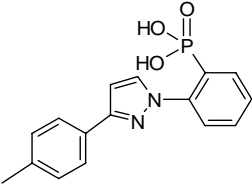
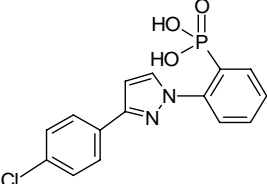
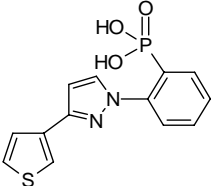
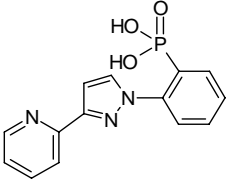
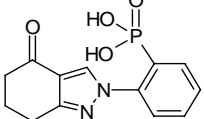
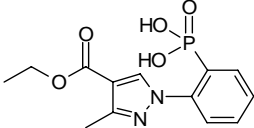
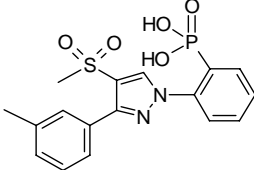
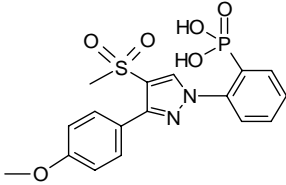
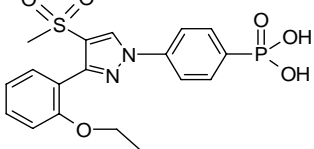
SELECTED RECENT COMPOUNDS.xls

L03-58-4960		C13H17N2O6PS	360,33	185-187	colorless crystals
L03-58-4961		C14H19N2O6PS	374,36	223-225	colorless crystals
L03-58-5059		C11H14N3O3P	267,23	267-272	cream-colored crystals
L04-58-4890		C13H15N2O4P	294,25	186-188	colorless crystals
L04-58-4962		C12H13N2O5PS	328,29	244-246	colorless crystals
L04-58-4963		C14H18N2NaO5PS	380,34	237-242	colorless solid hygroscopic
L04-58-4964		C13H15ClN2NaO5PS	400,76	240-245	colorless solid hygroscopic
L04-58-4965		C14H18N2NaO6PS	396,34	252-257	colorless crystals hygroscopic
L04-58-4966		C15H21N2O6PS	388,38	181-183	colorless crystals

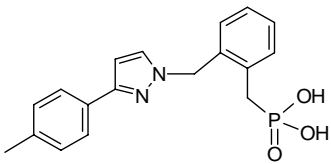
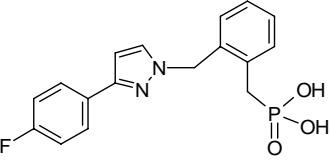
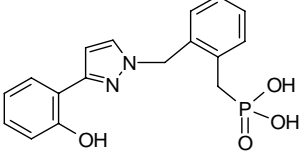
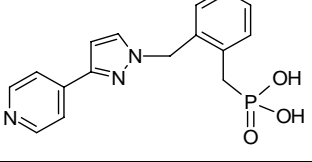
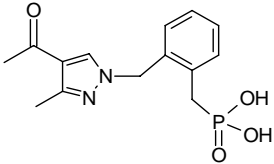
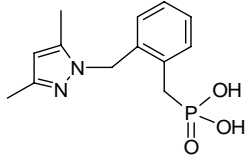
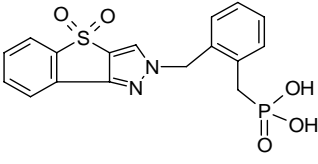
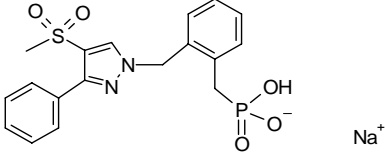
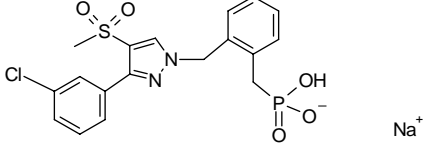
SELECTED RECENT COMPOUNDS.xls

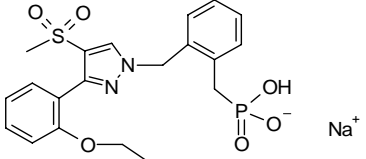
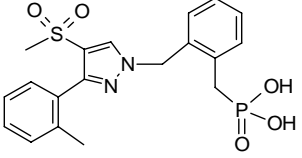
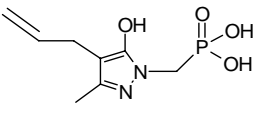
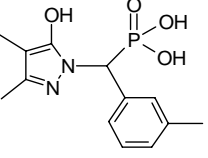
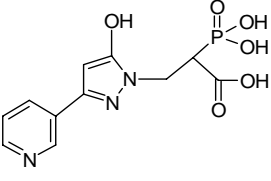
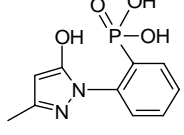
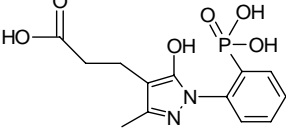
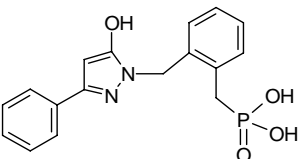
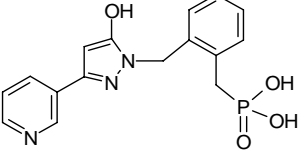
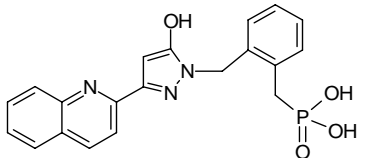
L04-58-5060		C ₁₂ H ₁₆ N ₃ O ₃ P	281,25	202-204	colorless crystals
L04-58-5070		C ₁₉ H ₂₁ N ₂ O ₄ P	372,36	137-139	colorless crystals
L05-58-4891		C ₁₁ H ₁₃ FN ₂ O ₆ P ₂	350,18	178-180	colorless crystals
L05-58-4892		C ₁₁ H ₁₄ N ₂ O ₇ P ₂	348,19	212-215	colorless crystals
L05-58-4893		C ₁₂ H ₁₄ N ₂ O ₆ P ₂	344,20	194-197	yellowish crystals
L05-58-4894		C ₁₃ H ₁₆ N ₂ O ₆ P ₂	358,23	273-276	colorless crystals
L05-58-5071		C ₁₈ H ₂₀ N ₂ O ₇ P ₂	438,32	241-243	colorless crystals
L05A-58-5072		C ₈ H ₁₃ N ₂ O ₅ P	248,18	164-166	colorless crystals
L05A-58-5073		C ₁₃ H ₁₅ N ₂ O ₅ P	310,25	245-248	colorless crystals

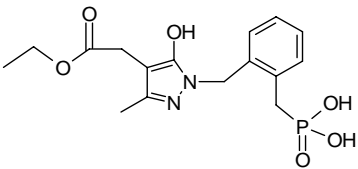
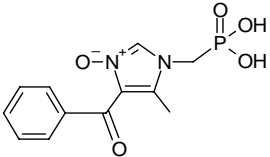
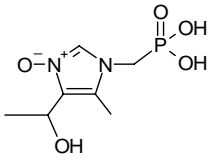
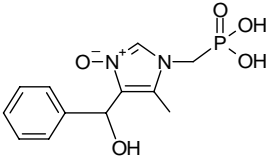
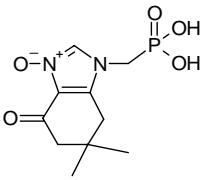
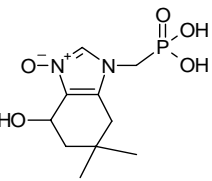
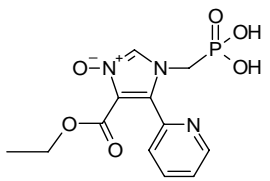
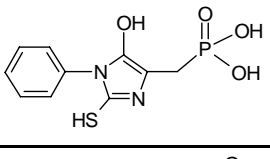
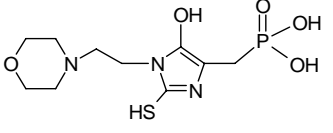
SELECTED RECENT COMPOUNDS.xls

L06-58-4967		C ₁₆ H ₁₅ N ₂ O ₃ P	314,28	148-152	2 isomers cream-colored crystals
L06-58-4968		C ₁₅ H ₁₂ ClN ₂ O ₃ P	334,70	133-137	cream-colored crystals
L06-58-4969		C ₁₃ H ₁₁ N ₂ O ₃ PS	306,28	132-137	cream-colored crystals
L06-58-4970		C ₁₄ H ₁₂ N ₃ O ₃ P	301,24	220-225	yellowish crystals
L06-58-4971		C ₁₃ H ₁₃ N ₂ O ₄ P	292,23	258-262	colorless crystals
L06-58-4972		C ₁₃ H ₁₅ N ₂ O ₅ P	310,25	225-230	yellowish crystals
L06-58-4973		C ₁₇ H ₁₇ N ₂ O ₅ PS	392,37	215-220	cream-colored crystals
L06-58-4975		C ₁₇ H ₁₇ N ₂ O ₆ PS	408,37	265-270	colorless crystals
L08-58-4977		C ₁₈ H ₁₉ N ₂ O ₆ PS	422,40	182-185	cream-colored crystals

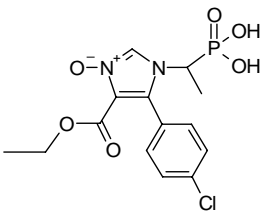
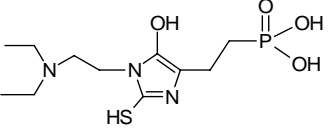
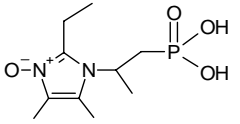
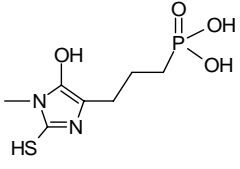
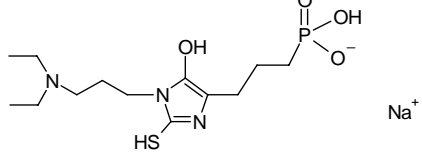
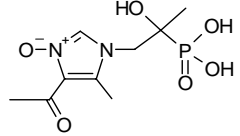
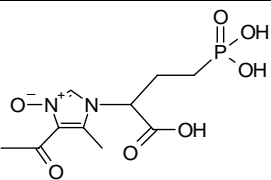
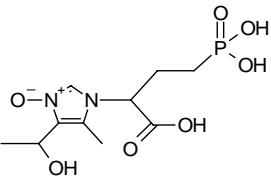
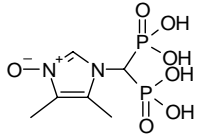
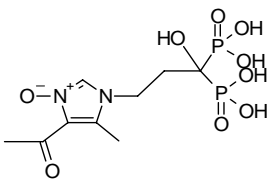
SELECTED RECENT COMPOUNDS.xls

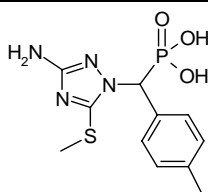
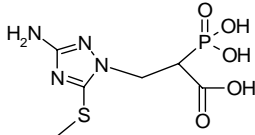
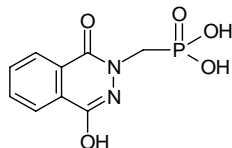
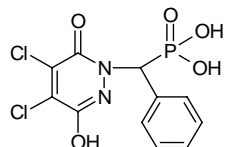
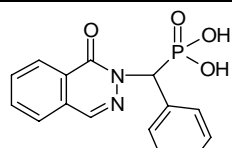
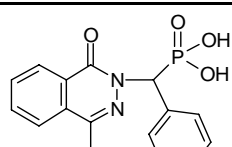
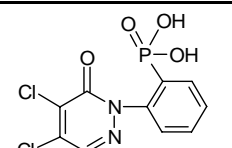
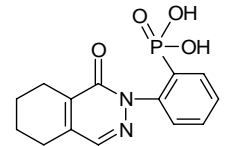
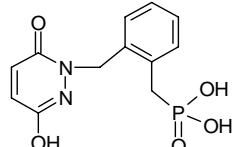
L09-58-4978		C18H19N2O3P	342,34	95-97	2 isomers colorless crystals
L09-58-4979		C17H16FN2O3P	346,30	193-197	2 isomers colorless crystals
L09-58-4980		C17H17N2O4P	344,31	110-114	colorless crystals
L09-58-4981		C16H16N3O3P	329,30	224-226	2 isomers colorless crystals
L09-58-4982		C14H17N2O4P	308,28	225-230	colorless crystals
L09-58-4983		C13H17N2O3P	280,27	269-274	colorless crystals
L09-58-4984		C17H15N2O5PS	390,36	250-252	yellowish crystals
L09-58-4985		C18H18N2NaO5PS	428,38	277-280	colorless crystals
L09-58-4986		C18H17ClN2NaO5PS	462,83	222-227	colorless solid

L09-58-4987		C20H22N2NaO6PS	472,44	287-290	colorless solid hygroscopic
L09-58-5074		C19H21N2O5PS	420,43	93-95	colorless crystals
M	HYDROXYPYRAZOLE-ALKYL-PHOSPHONIC ACIDS				
M01-59-4895		C8H13N2O4P	232,18	235-237	colorless crystals
M02-59-5075		C13H17N2O4P	296,27	166-168	colorless crystals
M05A-59-5076		C11H12N3O6P	313,21	253-254	yellowish crystals
M06-59-4989		C10H11N2O4P	254,18	206-210	colorless crystals
M06-59-4990		C13H15N2O6P	326,25	162-165	colorless crystals
M09-59-4991		C17H17N2O4P	344,31	265-267	cream-colored crystals
M09-59-4992		C16H16N3O4P	345,30	177-180	cream-colored crystals
M09-59-4993		C20H18N3O4P	395,36	195-199	orange-brown crystals

M09-59-4994		C16H21N2O6P	368,33	256-260	colorless crystals
N	IMIDAZOLE-ALKYL-PHOSPHONIC ACIDS and N-oxides				
N01-11-4851		C12H13N2O5P	296,22	225-230	colorless crystals
N01-11-4852		C7H13N2O5P	236,17	210-212	colorless crystals
N01-11-4853		C12H15N2O5P	298,24	223-226	colorless crystals
N01-11-4854		C10H15N2O5P	274,22	237-238	colorless plates
N01-11-4855		C10H17N2O5P	276,23	230-240	white solid
N01-11-4856		C12H14N3O6P	327,24	193-194	colorless crystals
N01-72-4938		C10H11N2O4PS	286,25	132-135	colorless crystals
N01-72-4939		C10H18N3O5PS	323,31	176-178	colorless crystals

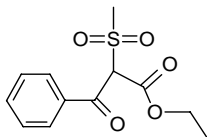
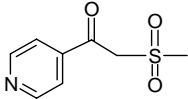
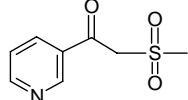
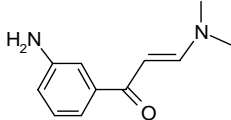
SELECTED RECENT COMPOUNDS.xls

N02-11-4857		C14H16ClN2O6P	374,72	166-169	colorless crystals
N05-72-4940		C11H22N3O4PS	323,35	251-254	colorless crystals
N06-11-4859		C10H19N2O4P	262,25	249-251	colorless crystals
N07-72-4941		C7H13N2O4PS	252,23	143-145	colorless crystals
N07-72-4942		C13H25N3NaO4PS	373,39	162-165	colorless crystals
N08-11-4858		C9H15N2O6P	278,20	220-222	colorless crystals
N11-51-4876		C10H15N2O7P	306,21	211-213	colorless crystals
N11-51-4877		C10H17N2O7P	308,23	55-57	colorless solid hygroscopic
N12-48-4870		C6H12N2O7P2	286,12	251-253	colorless crystals
N13-48-4871		C9H16N2O9P2	358,18	226-227	colorless crystals

P		TRIAZOLE-ALKYL-PHOSPHONIC ACIDS				
P01A-61-5061		C11H15N4O3PS	314,31	300-301	colorless crystals	
P03-61-5077		C6H11N4O5PS	282,22	244-247	colorless crystals	
S		PYRIDAZINE-ALKYL-PHOSPHONIC ACIDS				
S01-62-4995		C9H9N2O5P	256,16	195-200	colorless crystals	
S02-62-4996		C11H9Cl2N2O5P	351,08	158-162	colorless crystals	
S02-62-5080		C15H13N2O4P	316,26	206-208	colorless crystals	
S02-62-5081		C17H17N2O4P	344,31	250-255	colorless crystals	
S05-62-4997		C10H7Cl2N2O5P	337,06	182-186	orange-yellow crystals	
S05-62-4998		C14H15N2O4P	306,26	235-238	yellowish crystals	
S06-62-4999		C12H13N2O5P	296,22	282-285	colorless crystals	

S06-62-5000		C16H15N2O4P	330,28	215-217	colorless crystals
S06-62-5001		C16H19N2O5P	350,31	228-230	colorless crystals
S06-62-5002		C15H17N2O4PS2	384,42	253-257	colorless crystals
S07-62-5078		C10H12N2O7P2	334,16	248-250	colorless crystals
S07-62-5079		C11H14N2O7P2	348,19	270-272	colorless crystals
X	AMINO-PHOSPHINIC ACIDS				
X01-65-4806		C7H12NO2PS	205,22	224-227	colorless crystals
X01-66-4815		C5H12NO4PS	213,19	233-236	colorless crystals
X01-66-4816		C7H8N3O4P	229,13	195-198	colorless crystals
X01-66-5009		C14H23ClN3O2P	331,79	121-123	colorless crystals
X01-71-5023		C11H19NO5P2	307,23	179-183	colorless crystals

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Z-90-5041		C ₁₂ H ₁₄ O ₅ S	270,31	75-77	colorless crystals
Z-90-5044		C ₈ H ₉ NO ₃ S	199,23	104-108	colorless crystals
Z-90-5045		C ₈ H ₉ NO ₃ S	199,23	76-79	colorless crystals
Z-91-5042		C ₁₁ H ₁₄ N ₂ O	190,25	107-109	pale yellow crystals