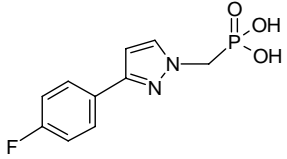
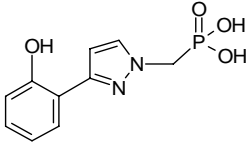
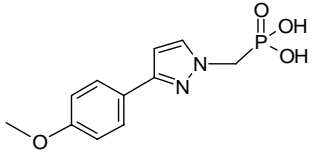
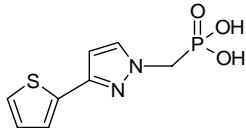
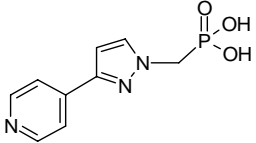
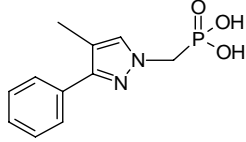
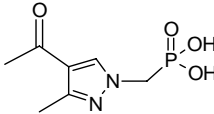
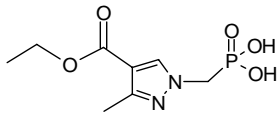
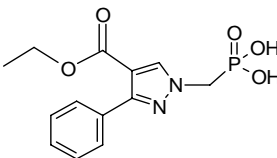
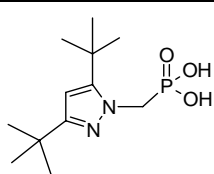
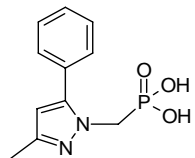
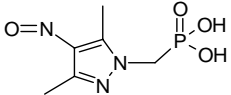
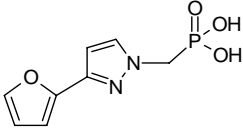
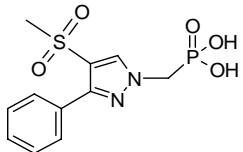
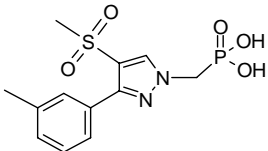
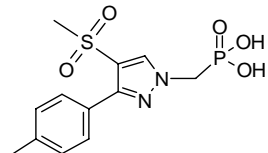
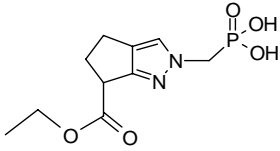
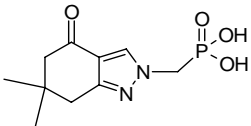
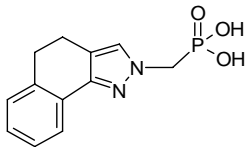
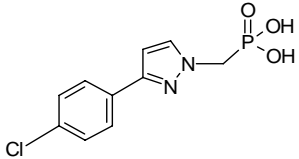
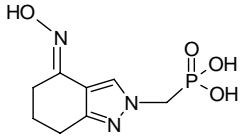
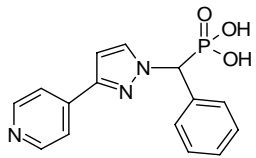
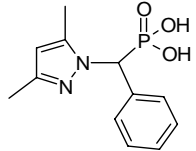
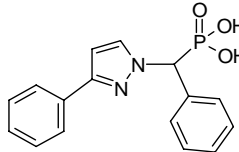
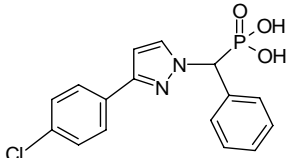
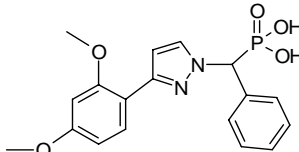
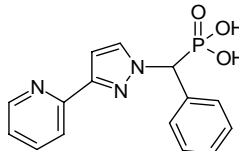
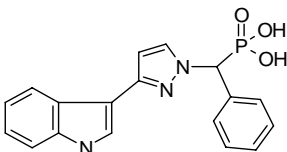
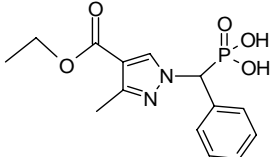
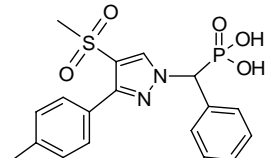
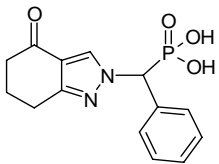
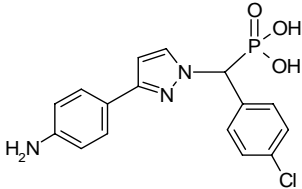
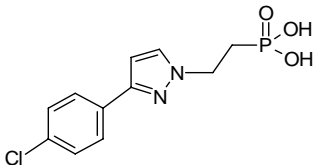
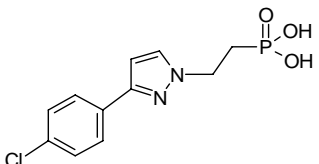
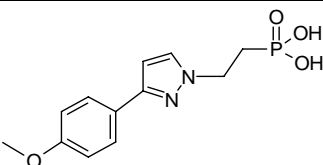
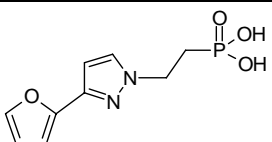
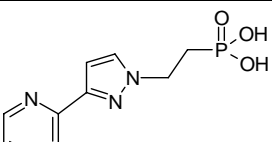
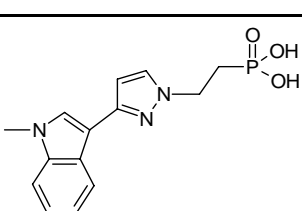
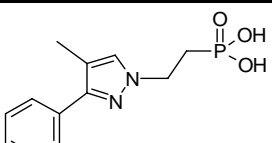
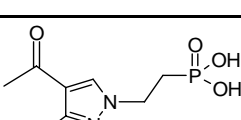


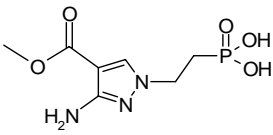
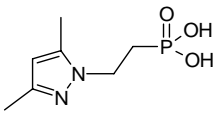
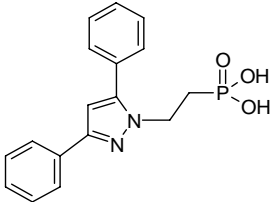
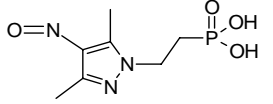
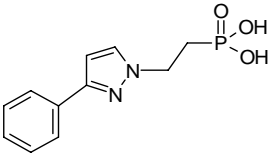
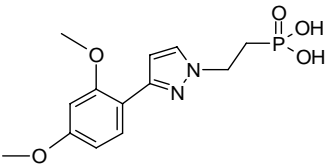
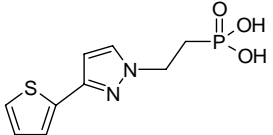
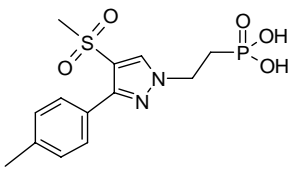
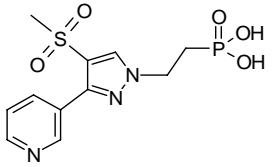
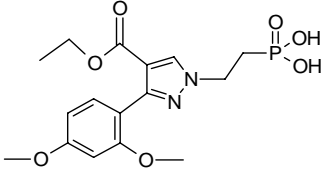
ID Number	Structure	Formula	M.W.	m.p. °C	Remarks
L	PYRAZOLE-ALKYL-PHOSPHONIC ACIDS				
L01-58-4533		C ₁₀ H ₁₀ FN ₂ O ₃ P	256,18	214-216	colorless crystals
L01-58-4534		C ₁₀ H ₁₁ N ₂ O ₄ P	254,18	253-256	colorless crystals
L01-58-4535		C ₁₁ H ₁₃ N ₂ O ₄ P	268,21	253-256	colorless crystals
L01-58-4536		C ₈ H ₉ N ₂ O ₃ PS	244,21	242-244	colorless crystals
L01-58-4537		C ₉ H ₁₀ N ₃ O ₃ P	239,17	241-244	colorless crystals
L01-58-4538		C ₁₁ H ₁₃ N ₂ O ₃ P	252,21	196-199	colorless crystals
L01-58-4539		C ₇ H ₁₁ N ₂ O ₄ P	218,15	192-194	cream-colored crystals 2 isomers
L01-58-4540		C ₈ H ₁₃ N ₂ O ₅ P	248,18	235-240	colorless crystals 2 isomers
L01-58-4541		C ₁₃ H ₁₅ N ₂ O ₅ P	310,25	200-204	colorless crystals 2 isomers
L01-58-4542		C ₁₂ H ₂₃ N ₂ O ₃ P	274,30	232-237	colorless crystals

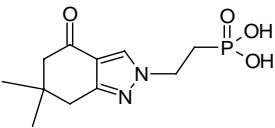
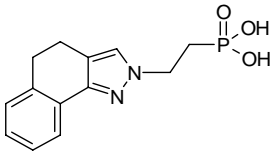
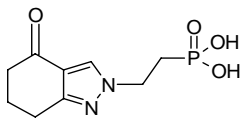
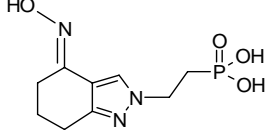
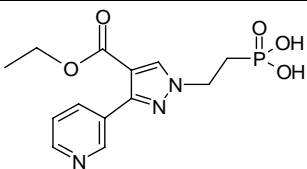
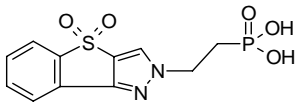
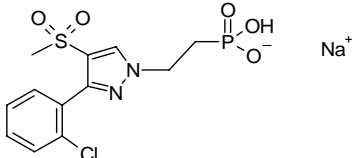
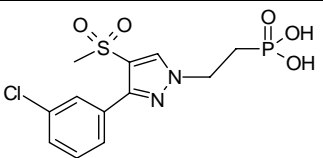
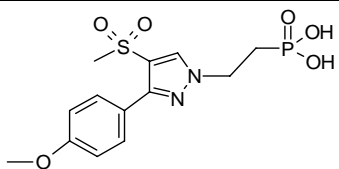
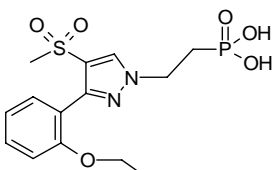
L01-58-4543		C ₁₁ H ₁₃ N ₂ O ₃ P	252,21	180-184	colorless crystals 2 isomers
L01-58-4684		C ₆ H ₁₀ N ₃ O ₄ P	219,14	257-259	yellowish crystals 2 isomers
L01-58-4685		C ₈ H ₉ N ₂ O ₄ P	228,15	246-249	colorless crystals
L01-58-4686		C ₁₁ H ₁₃ N ₂ O ₅ PS	316,27	181-183	colorless crystals
L01-58-4687		C ₁₂ H ₁₅ N ₂ O ₅ PS	330,30	225-228	colorless crystals
L01-58-4688		C ₁₂ H ₁₅ N ₂ O ₅ PS	330,30	266-269	yellowish crystals
L01-58-4689		C ₁₀ H ₁₅ N ₂ O ₅ P	274,22	206-208	colorless crystals
L01-58-4690		C ₁₀ H ₁₅ N ₂ O ₄ P	258,22	240-242	yellowish crystals
L01-58-4691		C ₁₂ H ₁₃ N ₂ O ₃ P	264,22	248-255	colorless plates 2 isomers
L01-58-4880		C ₁₀ H ₁₀ ClN ₂ O ₃ P	272,63	274-276	colorless crystals
L01-58-4881		C ₈ H ₁₂ N ₃ O ₄ P	245,18	254-256	colorless crystals

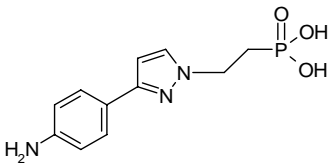
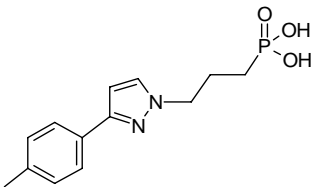
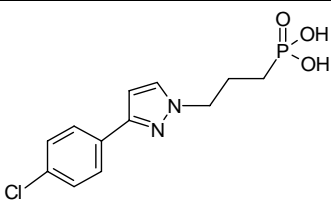
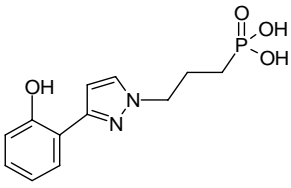
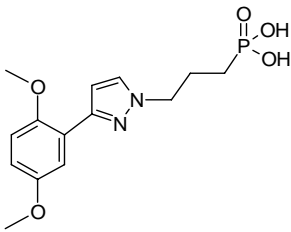
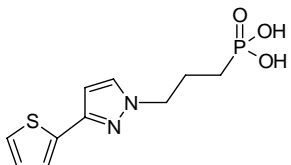
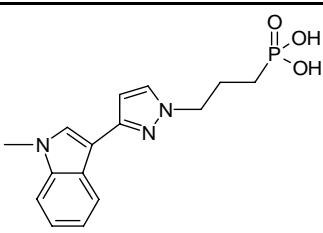
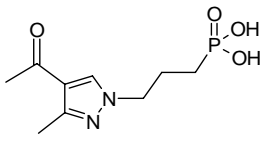
L01-58-4882		C9H14N5O3PS	303,28	231-232	colorless crystals
L01-58-4883		C11H9N2O4P	264,18	269-272	orange crystals
L01-58-4951		C12H15N2O5PS	330,30	263-267	colorless crystals
L01-58-4952		C11H12ClN2O5PS	350,72	260-263	colorless crystals
L01-58-4953		C11H12ClN2O5PS	350,72	204-208	colorless crystals
L01-58-4954		C12H15N2O6PS	346,30	254-257	colorless crystals
L01-58-4955		C13H17N2O6PS	360,33	235-237	colorless crystals
L02-58-4544		C16H14FN2O3P	332,27	216-219	colorless crystals
L02-58-4545		C16H15N2O4P	330,28	122-125	colorless crystals
L02-58-4546		C17H16N2NaO4P	366,29	340-345	colorless crystals

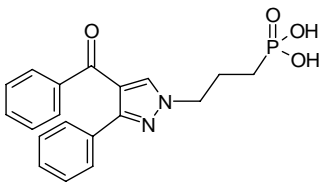
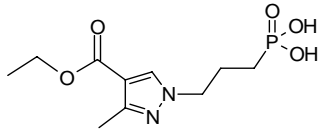
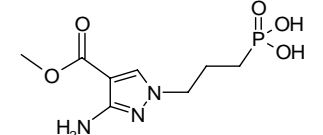
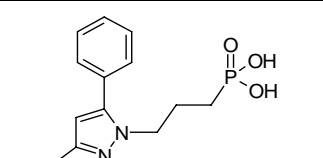
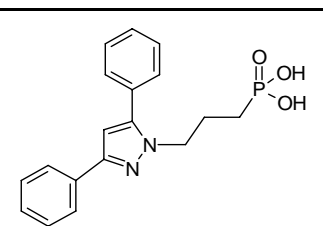
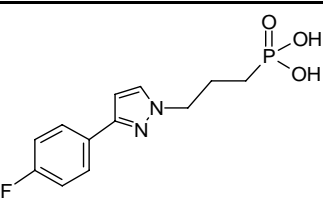
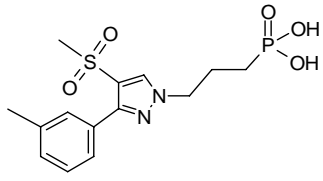
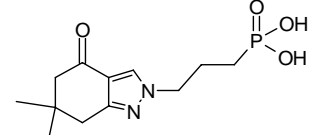
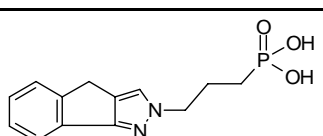
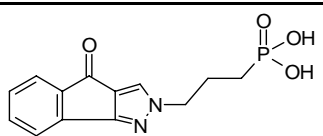
L02-58-4547		C ₁₅ H ₁₄ N ₃ O ₃ P	315,27	215-220	light yellow crystals
L02-58-4692		C ₁₂ H ₁₅ N ₂ O ₃ P	266,24	239-242	colorless crystals
L02-58-4693		C ₁₆ H ₁₅ N ₂ O ₃ P	314,28	189-192	colorless crystals
L02-58-4694		C ₁₆ H ₁₄ ClN ₂ O ₃ P	348,73	240-250	colorless plates
L02-58-4695		C ₁₈ H ₁₉ N ₂ O ₅ P	374,34	75-80	light yellow crystals
L02-58-4697		C ₁₅ H ₁₄ N ₃ O ₃ P	315,27	275-278	colorless crystals
L02-58-4698		C ₁₉ H ₁₈ N ₃ O ₃ P	367,35	137-139	cream-colored crystals
L02-58-4699		C ₁₄ H ₁₇ N ₂ O ₅ P	324,28	112-114	colorless crystals
L02-58-4700		C ₁₈ H ₁₉ N ₂ O ₅ PS	406,40	153-155	colorless crystals

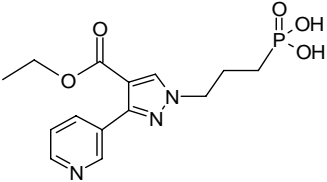
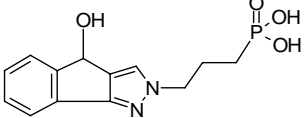
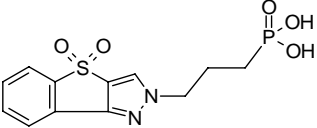
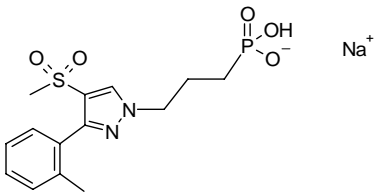
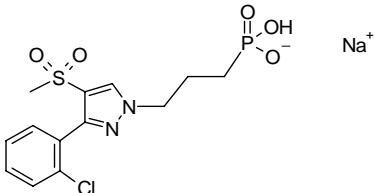
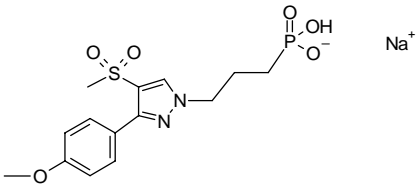
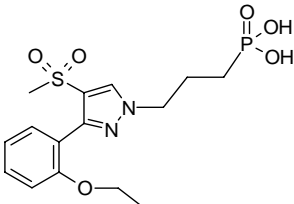
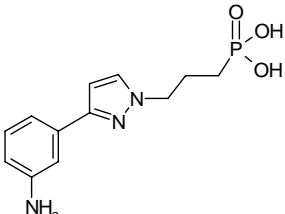
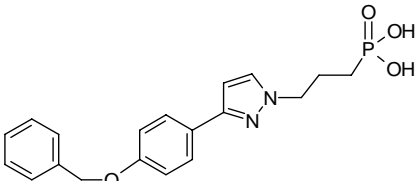
L02-58-4702		C ₁₄ H ₁₅ N ₂ O ₄ P	306,26	273-276	colorless plates
L02-58-5058		C ₁₆ H ₁₅ ClN ₃ O ₃ P	363,74	180-185	cream-colored crystals
L03-58-4550		C ₁₁ H ₁₂ ClN ₂ O ₃ P	286,66	170-175	colorless crystals 2 isomers
L03-58-4551		C ₁₁ H ₁₂ ClN ₂ O ₃ P	286,66	180-182	colorless crystals 2 isomers
L03-58-4552		C ₁₂ H ₁₅ N ₂ O ₄ P	282,24	179-183	colorless crystals 2 isomers
L03-58-4553		C ₉ H ₁₁ N ₂ O ₄ P	242,17	135-138	beige crystals
L03-58-4554		C ₁₀ H ₁₂ N ₃ O ₃ P	253,20	180-181	colorless crystals
L03-58-4555		C ₁₄ H ₁₆ N ₃ O ₃ P	305,28	172-174	colorless crystals
L03-58-4556		C ₁₂ H ₁₅ N ₂ O ₃ P	266,24	143-145	colorless crystals 2 isomers
L03-58-4557		C ₈ H ₁₃ N ₂ O ₄ P	232,18	207-210	colorless crystals 2 isomers

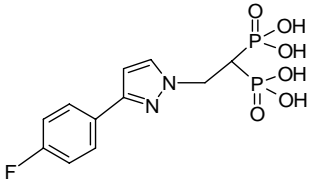
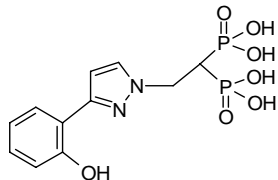
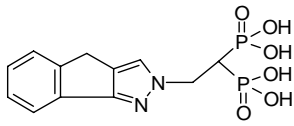
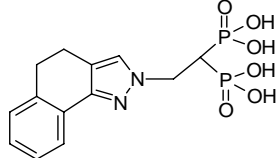
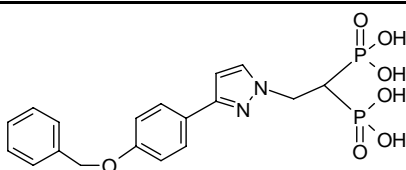
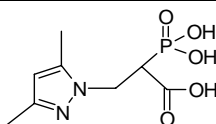
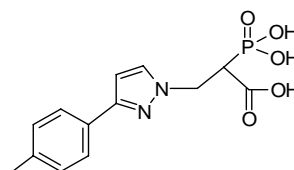
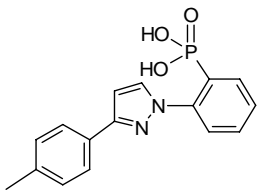
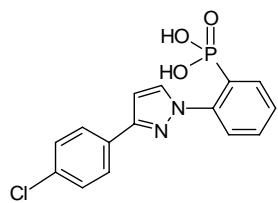
L03-58-4559		C7H12N3O5P	249,16	208-213	colorless crystals
L03-58-4560		C7H13N2O3P	204,17	169-172	colorless crystals
L03-58-4561		C17H17N2O3P	328,31	177-180	colorless crystals
L03-58-4704		C7H12N3O4P	233,17	218-220	yellowish crystals 2 isomers
L03-58-4705		C11H13N2O3P	252,21	189-192	colorless crystals
L03-58-4706		C13H17N2O5P	312,26	184-187	colorless crystals
L03-58-4707		C9H11N2O3PS	258,24	193-196	colorless crystals
L03-58-4709		C13H17N2O5PS	344,33	175-177	colorless crystals 2 isomers
L03-58-4710		C11H14N3O5PS	331,29	166-169	colorless crystals
L03-58-4711		C16H21N2O7P	384,33	171-173	colorless crystals

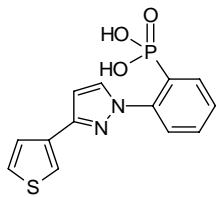
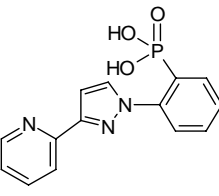
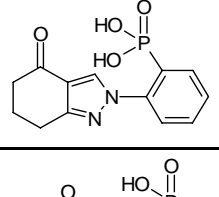
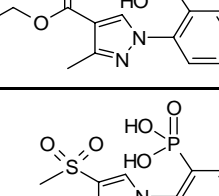
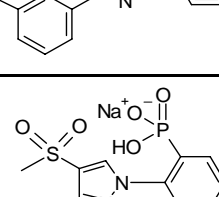
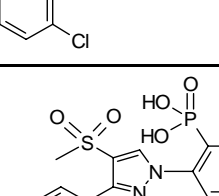
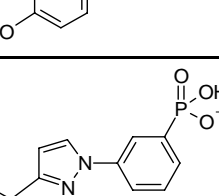
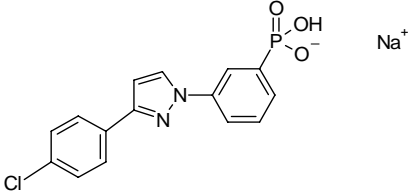
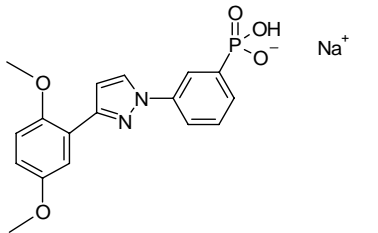
L03-58-4713		C11H17N2O4P	272,24	185-187	colorless crystals
L03-58-4715		C13H15N2O3P	278,25	194-199	colorless crystals
L03-58-4886		C9H13N2O4P	244,19	230-232	colorless crystals
L03-58-4887		C9H14N3O4P	259,20	195-198	colorless crystals
L03-58-4888		C13H16N3O5P	325,26	175-178	cream-colored crystals
L03-58-4957		C11H11N2O5PS	314,26	over 300	yellowish crystals
L03-58-4958		C12H13ClN2NaO5PS	386,73	215-219	2 isomers cream-colored solid hygroscopic purity ca 90%
L03-58-4959		C12H14ClN2O5PS	364,75	195-197	colorless crystals
L03-58-4960		C13H17N2O6PS	360,33	185-187	colorless crystals
L03-58-4961		C14H19N2O6PS	374,36	223-225	colorless crystals

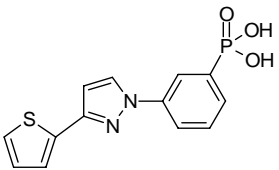
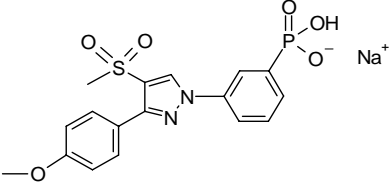
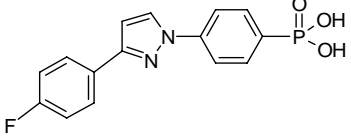
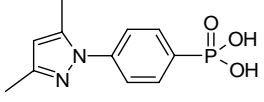
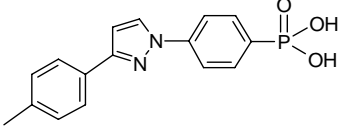
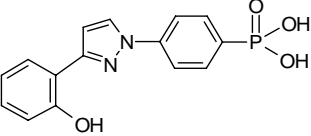
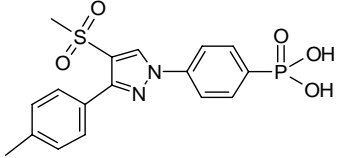
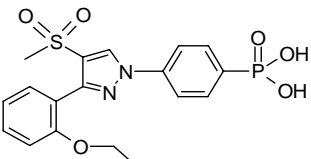
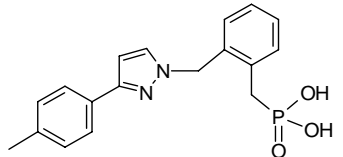
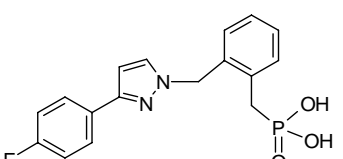
L03-58-5059		C ₁₁ H ₁₄ N ₃ O ₃ P	267,23	267-272	cream-colored crystals
L04-58-4562		C ₁₃ H ₁₇ N ₂ O ₃ P	280,27	172-175	2 isomers colorless crystals
L04-58-4563		C ₁₂ H ₁₄ ClN ₂ O ₃ P	300,68	131-133	2 isomers colorless crystals
L04-58-4564		C ₁₂ H ₁₅ N ₂ O ₄ P	282,24	210-214	colorless crystals
L04-58-4565		C ₁₄ H ₁₉ N ₂ O ₅ P	326,29	173-175	colorless crystals
L04-58-4566		C ₁₀ H ₁₃ N ₂ O ₃ PS	272,26	154-156	colorless crystals
L04-58-4567		C ₁₅ H ₁₈ N ₃ O ₃ P	319,30	223-225	colorless crystals
L04-58-4568		C ₉ H ₁₅ N ₂ O ₄ P	246,20	143-147	2 isomers colorless crystals

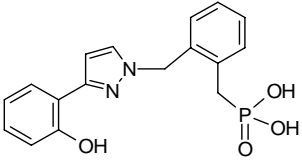
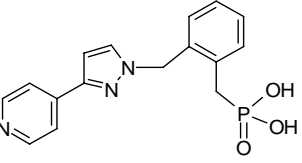
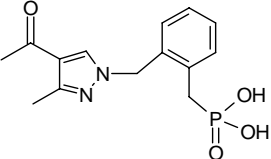
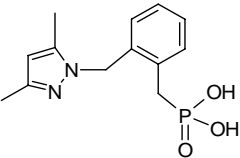
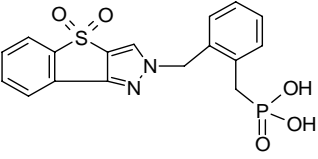
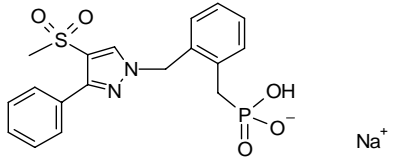
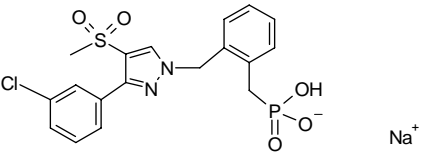
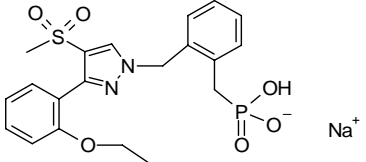
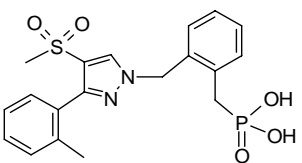
L04-58-4569		C ₁₉ H ₁₉ N ₂ O ₄ P	370,35	113-115	2 isomers colorless crystals
L04-58-4570		C ₁₀ H ₁₇ N ₂ O ₅ P	276,23	151-153	colorless crystals
L04-58-4571		C ₈ H ₁₄ N ₃ O ₅ P	263,19	226-230	cream-colored crystals
L04-58-4572		C ₁₃ H ₁₇ N ₂ O ₃ P	280,27	152-155	2 isomers colorless crystals
L04-58-4573		C ₁₈ H ₁₉ N ₂ O ₃ P	342,34	128-131	cream-colored crystals
L04-58-4717		C ₁₂ H ₁₄ FN ₂ O ₃ P	284,23	177-183	colorless crystals
L04-58-4719		C ₁₄ H ₁₉ N ₂ O ₅ PS	358,36	202-204	colorless crystals
L04-58-4721		C ₁₂ H ₁₉ N ₂ O ₄ P	286,27	178-180	colorless crystals
L04-58-4722		C ₁₃ H ₁₅ N ₂ O ₃ P	278,25	249-252	colorless crystals
L04-58-4723		C ₁₃ H ₁₃ N ₂ O ₄ P	292,23	237-239	orange crystals

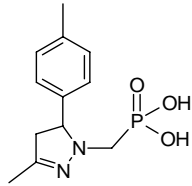
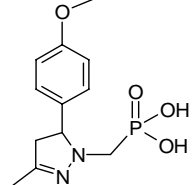
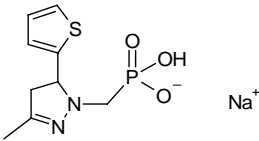
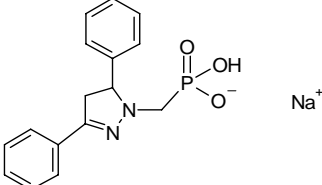
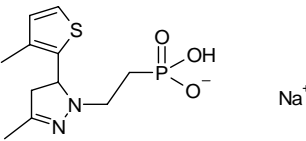
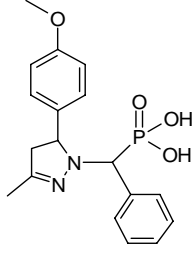
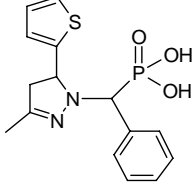
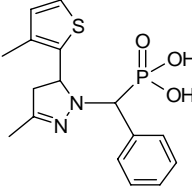
L04-58-4889		C14H18N3O5P	339,29	213-216	cream-colored crystals
L04-58-4890		C13H15N2O4P	294,25	186-188	colorless crystals
L04-58-4962		C12H13N2O5PS	328,29	244-246	colorless crystals
L04-58-4963		C14H18N2NaO5PS	380,34	237-242	colorless solid hygroscopic
L04-58-4964		C13H15ClN2NaO5PS	400,76	240-245	colorless solid hygroscopic
L04-58-4965		C14H18N2NaO6PS	396,34	252-257	colorless crystals hygroscopic
L04-58-4966		C15H21N2O6PS	388,38	181-183	colorless crystals
L04-58-5060		C12H16N3O3P	281,25	202-204	colorless crystals
L04-58-5070		C19H21N2O4P	372,36	137-139	colorless crystals

L05-58-4891		C11H13FN2O6P2	350,18	178-180	colorless crystals
L05-58-4892		C11H14N2O7P2	348,19	212-215	colorless crystals
L05-58-4893		C12H14N2O6P2	344,20	194-197	yellowish crystals
L05-58-4894		C13H16N2O6P2	358,23	273-276	colorless crystals
L05-58-5071		C18H20N2O7P2	438,32	241-243	colorless crystals
L05A-58-5072		C8H13N2O5P	248,18	164-166	colorless crystals
L05A-58-5073		C13H15N2O5P	310,25	245-248	colorless crystals
L06-58-4967		C16H15N2O3P	314,28	148-152	2 isomers cream-colored crystals
L06-58-4968		C15H12ClN2O3P	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
L06-58-4974		C ₁₆ H ₁₃ ClN ₂ NaO ₅ PS	434,77	257-263	orange-brown solid hygroscopic purity ca 90%
L06-58-4975		C ₁₇ H ₁₇ N ₂ O ₆ PS	408,37	265-270	colorless crystals
L07-58-4577		C ₁₅ H ₁₁ ClN ₂ NaO ₃ P	356,68	335-340	colorless crystals
L07-58-4578		C ₁₇ H ₁₆ N ₂ NaO ₅ P	382,29	285-288	colorless crystals

L07-58-4725		C13H11N2O3PS	306,28	229-232	colorless crystals
L07-58-4976		C17H16N2NaO6PS	430,35	190-194	yellowish solid hygroscopic purity ca 90%
L08-58-4574		C15H12FN2O3P	318,25	237-240	colorless crystals
L08-58-4576		C11H13N2O3P	252,21	225-229	colorless crystals
L08-58-4726		C16H15N2O3P	314,28	227-230	colorless crystals
L08-58-4727		C15H13N2O4P	316,26	287-290	colorless crystals
L08-58-4728		C17H17N2O5PS	392,37	105-110	cream-colored crystals
L08-58-4977		C18H19N2O6PS	422,40	182-185	cream-colored crystals
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		C ₁₇ H ₁₇ N ₂ O ₄ P	344,31	110-114	colorless crystals
L09-58-4981		C ₁₆ H ₁₆ N ₃ O ₃ P	329,30	224-226	2 isomers colorless crystals
L09-58-4982		C ₁₄ H ₁₇ N ₂ O ₄ P	308,28	225-230	colorless crystals
L09-58-4983		C ₁₃ H ₁₇ N ₂ O ₃ P	280,27	269-274	colorless crystals
L09-58-4984		C ₁₇ H ₁₅ N ₂ O ₅ PS	390,36	250-252	yellowish crystals
L09-58-4985		C ₁₈ H ₁₈ N ₂ NaO ₅ PS	428,38	277-280	colorless crystals
L09-58-4986		C ₁₈ H ₁₇ ClN ₂ NaO ₅ PS	462,83	222-227	colorless solid
L09-58-4987		C ₂₀ H ₂₂ N ₂ NaO ₆ PS	472,44	287-290	colorless solid hygroscopic
L09-58-5074		C ₁₉ H ₂₁ N ₂ O ₅ PS	420,43	93-95	colorless crystals

L10-60-4634		C ₁₂ H ₁₇ N ₂ O ₃ P	268,25	185-187	yellowish crystals
L10-60-4635		C ₁₂ H ₁₇ N ₂ O ₄ P	284,25	175-181	cream-colored crystals
L10-60-4636		C ₉ H ₁₂ N ₂ NaO ₃ PS	282,24	228-231	yellowish crystals
L10-60-4637		C ₁₆ H ₁₆ N ₂ NaO ₃ P	338,28	287-290	cream-colored crystals
L10-60-4639		C ₁₁ H ₁₆ N ₂ NaO ₃ PS	310,29	191-196	cream-colored solid
L10-60-4751		C ₁₈ H ₂₁ N ₂ O ₄ P	360,35	108-110	colorless crystals
L10-60-4752		C ₁₅ H ₁₇ N ₂ O ₃ PS	336,35	188-190	colorless crystals
L10-60-4753		C ₁₆ H ₁₉ N ₂ O ₃ PS	350,38	113-115	yellowish crystals