

Phosphate Buffer Dilution Table

pH	0.2 M Na/K			0.4 M Na/K			0.6 M Na/K			0.8 M Na/K			1.0 M Na/K			1.2 M Na/K			1.4 M Na/K			1.6 M Na/K			1.8 M Na/K			2.0 M Na/K			pH								
5.0	49	1	950	98	2	900	147	3	850	196	4	800	245	5	750	294	6	700	343	7	650	392	8	600	441	9	550	490	10	500	5.0								
5.2	48	2	950	97	3	900	146	4	850	195	5	800	244	6	750	292	8	700	341	9	650	390	10	600	438	12	550	487	13	500	5.2								
5.4	47	3	950	95	5	900	142	8	850	189	11	800	237	13	750	284	16	700	331	19	650	379	21	600	426	24	550	473	27	500	5.4								
5.6	45	5	950	90	10	900	135	15	850	180	20	800	225	25	750	270	30	700	315	35	650	360	40	600	405	45	550	450	50	500	5.6								
5.8	42	8	950	84	16	900	126	24	850	168	32	800	210	40	750	252	48	700	294	56	650	336	64	600	378	72	550	420	80	500	5.8								
6.0	38	12	950	77	23	900	115	35	850	153	47	800	191	59	750	230	70	700	268	82	650	306	94	600	345	105	550	383	117	500	6.0								
6.2	34	16	950	68	32	900	102	48	850	137	63	800	171	79	750	205	95	700	239	111	650	273	127	600	307	143	550	341	159	500	6.2								
6.4	30	20	950	59	41	900	89	61	850	119	81	800	148	102	750	178	122	700	208	142	650	238	162	600	267	183	550	297	203	500	6.4								
6.6	25	25	950	50	50	900	75	75	850	100	100	800	126	124	750	151	149	700	176	174	650	201	199	600	226	224	550	251	249	500	6.6								
6.8	21	29	950	41	59	900	62	88	850	82	118	800	103	147	750	123	177	700	144	206	650	164	236	600	185	265	550	205	295	500	6.8								
7.0	16	34	950	32	68	900	48	102	850	64	136	800	81	169	750	97	203	700	113	237	650	129	271	600	145	305	550	161	339	500	7.0								
7.2	12	38	950	24	76	900	36	114	850	48	152	800	60	190	750	72	228	700	84	266	650	96	304	600	108	342	550	120	380	500	7.2								
7.4	8	42	950	17	83	900	25	125	850	34	166	800	42	208	750	51	249	700	59	291	650	67	333	600	76	374	550	84	416	500	7.4								
7.6	5	45	950	11	89	900	16	134	850	22	178	800	27	223	750	33	267	700	38	312	650	44	356	600	49	401	550	55	445	500	7.6								
7.8	3	47	950	7	93	900	10	140	850	13	187	800	17	233	750	20	280	700	23	327	650	27	373	600	30	420	550	33	467	500	7.8								
8.0	2	48	950	4	96	900	7	143	850	9	191	800	11	239	750	13	287	700	15	335	650	17	383	600	19	431	550	21	479	500	8.0								
8.2	1	49	950	3	97	900	6	144	850	8	192	800	10	240	750	12	288	700	14	336	650	16	384	600	18	432	550	20	480	500	8.2								
	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O
pH	2.2 M Na/K			2.4 M Na/K			2.6 M Na/K			2.8 M Na/K			3.0 M Na/K			3.2 M Na/K			3.4 M Na/K			3.6 M Na/K			3.8 M Na/K			4.0 M Na/K			pH								
5.0	539	11	450	588	12	400	637	13	350	686	14	300	735	15	250	784	16	200	833	17	150	882	18	100	931	19	50	980	20	0	5.0								
5.2	536	14	450	585	15	400	633	17	350	682	18	300	731	19	250	779	21	200	828	22	150	877	23	100	925	25	50	974	26	0	5.2								
5.4	521	29	450	568	32	400	615	35	350	663	37	300	710	40	250	757	43	200	805	45	150	852	48	100	900	50	50	947	53	0	5.4								
5.6	495	55	450	541	59	400	586	64	350	631	69	300	676	74	250	721	79	200	766	84	150	811	89	100	856	94	50	901	99	0	5.6								
5.8	462	88	450	504	96	400	546	104	350	588	112	300	630	120	250	672	128	200	714	136	150	756	144	100	798	152	50	839	161	0	5.8								
6.0	421	129	450	459	141	400	498	152	350	536	164	300	574	176	250	613	187	200	651	199	150	689	211	100	727	223	50	766	234	0	6.0								
6.2	376	174	450	410	190	400	444	206	350	478	222	300	512	238	250	546	254	200	580	270	150	615	285	100	649	301	50	683	317	0	6.2								
6.4	327	223	450	356	244	400	386	264	350	416	284	300	445	305	250	475	325	200	505	345	150	535	365	100	564	386	50	594	406	0	6.4								
6.6	276	274	450	301	299	400	326	324	350	351	349	300	377	373	250	402	398	200	427	423	150	452	448	100	477	473	50	502	498	0	6.6								
6.8	226	324	450	246	354	400	267	383	350	287	413	300	308	442	250	328	472	200	349	501	150	369	531	100	390	560	50	410	590	0	6.8								
7.0	177	373	450	193	407	400	210	440	350	226	474	300	242	508	250	258	542	200	274	576	150	290	610	100	306	644	50	322	678	0	7.0								
7.2	132	418	450	144	456	400	156	494	350	168	532	300	181	569	250	193	607	200	205	645	150	217	683	100	229	721	50	241	759	0	7.2								
7.4	93	457	450	101	499	400	110	540	350	118	582	300	127	623	250	135	665	200	143	707	150	152	748	100	160	790	50	169	831	0	7.4								
7.6	60	490	450	66	534	400	71	579	350	77	623	300	82	668	250	88	712	200	93	757	150	99	801	100	104	846	50	110	890	0	7.6								
7.8	37	513	450	40	560	400	43	607	350	46	654	300	50	700	250	53	747	200	56	794	150	60	840	100	63	887	50	66	934	0	7.8								
8.0	23	527	450	25	575	400	28	622	350	30	670	300	32	718	250	34	766	200	36	814	150	38	862	100	40	910	50	42	958	0	8.0								
8.2	22	528	450	24	576	400	26	624	350	28	672	300	30	720	250	32	768	200	35	815	150	37	863	100	39	911	50	41	959	0	8.2								
	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O	Na	K	H ₂ O

Na = 4.0 M Sodium phosphate monobasic monohydrate (HR2-551)

K = 4.0 M Potassium phosphate dibasic (HR2-635)

Volumes in microliters; 1,000 example - scale to desired volume



Solutions for Crystal Growth

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