

[부록3] 유기화합물의 흡착특성

화 합 물	분자량	용해도 (%)	농도(mg/l)		흡착능	
			원수	잔류농도	g/g-ac	제거율(%)
Alcohol 류						
Methanol	32.0	∞	1000	964	0.007	3.6
Ethanol	46.1	∞	1000	901	0.020	10.0
Propanol	60.1	∞	1000	811	0.038	18.9
Buthanol	74.1	7.7	1000	466	0.107	53.4
n-Amyl alcohol	88.2	1.7	1000	282	0.155	71.8
n-Hexanol	102.2	0.58	1000	45	0.191	95.5
Iso propanol	60.1	∞	1000	874	0.025	12.6
Aryl alcohol	58.1	∞	1000	789	0.024	21.9
Iso buthanol	74.1	8.5	1000	581	0.084	41.9
t-Buthanol	74.1	∞	1000	705	0.059	29.5
2-Ethyl buthanol	102.2	0.43	1000	145	0.170	85.5
2-Ethyl hexanol	103.2	0.07	1000	10	0.138	98.5
Aldehyde 류						
Form aldehyde	30.0		1000	908	0.018	9.2
Acet aldehyde	44.1	∞	1000	881	0.022	11.9
Propion aldehyde	58.1	22	1000	723	0.057	27.7
Butyl aldehyde	72.1	7.1	1000	472	0.106	52.8
Acrolein	56.1	20.6	1000	694	0.061	30.6
Croton aldehyde	70.1	15.5	1000	544	0.092	45.6
Benz aldehyde	106.1	0.33	1000	60	0.188	94.0
Par-aldehyde	132.2	10.5	1000	261	0.148	73.9
Amine 류						
Di-N-propylamine	101.2	∞	1000	198	0.174	80.2
Butyl amine	73.1	∞	1000	480	0.103	52.0
Di-N-butylamine	129.3	∞	1000	130	0.174	87.0
Arylamine	57.1	∞	1000	686	0.063	31.4
Ethylendiamine	60.1	∞	1000	893	0.021	10.7
Diethylenetriamine	103.2	∞	1000	706	0.062	29.4
Mono ethanolamine	61.1	∞	1012	939	0.015	7.2
Diethanol amine	105.1	95.4	996	722	0.057	27.5
Tri ethanolamine	149.1	∞	1000	670	0.067	33.0
Monoisopropanolamine	75.1	∞	1000	800	0.040	20.0
Di-isopropanolamine	133.2	87	1000	543	0.091	45.7

화 합 물	분자량	용해도 (%)	농도(mg/ℓ)		흡착능	
			원수	잔류농도	g/g-ac	제거율(%)
Pyridin/Morphine						
Pyridine	79.1	∞	1000	527	0.095	47.3
2-Methyl-5-ethyl-pyridine	121.2	sl. sol.	1000	107	0.179	89.3
N-methylmorphine	101.2	∞	1000	575	0.085	42.5
N-ethylmorphine	115.2	∞	1000	467	0.107	53.3
방 향 족						
Benzene	78.1	0.07	416	21	0.080	95.0
Toluene	92.1	0.047	317	66	0.050	79.2
Ethyl benzene	106.2	0.02	115	18	0.019	84.3
Phenol	94	6.7	1000	194	0.161	80.6
Hydroquinone	110.1	6.0	1000	167	0.167	83.3
Aniline	93.1	3.4	1000	251	0.150	74.9
Styrene	104.2	0.03	180	18	0.028	88.8
Nitrobenzene	123.1	0.19	1023	44	0.196	95.6
Ester 류						
Metylacetate	74.1	31.9	1030	760	0.054	26.2
Ethylacelate	88.1	8.7	1000	495	0.100	50.5
Propylacetate	102.1	2	1000	248	0.149	75.2
Butylacetate	116.2	0.68	1000	154	0.169	84.6
제 1 급 Amylacetate	130.2	0.2	985	119	0.175	88.0
Isopropylacetate	102.1	2.9	1000	319	0.137	68.1
Iso butylacetate	116.2	0.63	1000	180	0.164	82.0
Vinylacetate	86.1	2.8	1000	357	0.129	64.3
Ethylen glycolmono-ethyl eter acetate	132.2	22.9	1000	342	0.132	65.8
Ethylacrylate	100.1	2.0	1015	226	0.157	77.7
Butylacrylate	128.2	0.2	1000	43	0.193	95.9
Ether 류						
Isopropylether	102.2	1.2	1000	203	0.162	80.0
Butylether	130.2	0.3	1023	nil	0.039	100.0
Dichloro iospropylether	171.1	0.17	1008	nil	0.200	100.0
Glycol 그외 ether 류						
Ethyleneglycol	62.1	∞	1000	932	0.0136	6.8

화 합 물	분자량	용해도 (%)	농도(mg/l)		흡착능	
			원수	잔류농도	g/g-ac	제거율(%)
Diethyleneglycol	106.1	∞	1000	738	0.053	26.2
Triethyleneglycol	150.2	∞	1000	477	0.105	52.3
Diethyleneglycol	106.1	∞	1000	738	0.053	26.2
Triethyleneglycol	150.2	∞	1000	477	0.105	52.3
Tetraethyleneglycol	194.2	∞	1000	419	0.116	58.1
Propyleneglycol	76.1	∞	1000	884	0.024	11.6
Dipropyleneglycol	134.2	∞	1000	835	0.033	16.5
Hexane glycol	118.2	∞	1000	386	0.122	61.4
유 기 산						
Formic Acid	46.0	∞	1000	765	0.047	23.5
Acetic Acid	60.1	∞	1000	760	0.048	24.0
Propionic Acid	74.1	∞	1000	674	0.065	32.6
Butyric Acid	88.1	∞	1000	405	0.119	59.5
Valeric Acid	102.1	2.4	1000	203	0.159	79.7
Caproic Acid	116.2	1.1	1000	30	0.194	97.0
Acrylic Acid	72.1	∞	1000	355	0.129	64.5
Benzoic Acid	122.1	0.29	1000	89	0.183	91.1
Oxide						
Propion oxide	58.1	40.5	1000	739	0.052	26.1
Stylene oxide	120.2	0.3	1000	47	0.190	95.3
Halogen 화물						
Ethylenedichloride	99.0	0.81	1000	189	0.163	81.1
Propylenedichloride	113.0	0.30	1000	71	0.183	92.9
Ketone 류						
Acetone	58.1	∞	1000	782	0.043	21.8
Methylethyl ketone	72.1	26.8	1000	532	0.094	46.8
Methylpropyl ketone	86.1	4.3	1000	305	0.139	69.5
Methylbutyl ketone	100.2	v,s,l,sol	988	191	0.159	80.7
Methylisobutyl ketone	100.2	1.9	1000	152	0.169	84.8
Methylisoamyl ketone	114.2	0.54	986	146	0.169	85.2
Di-isobutyl ketone	142.2	0.05	300	trace	0.060	100.0
Cyclohexanol	98.2	2.5	1000	332	0.134	66.8
Acet phenol	120.1	0.55	1000	28	0.194	97.2
Iso phorone	138.2	1.2	1000	34	0.193	96.6