

Strong basic anion exchangers

An example for the binding strength of strong basic anion exchangers for Type I is as followed:

$F^- < OH^- < \text{Acetate} < H_2PO_4^- < HCO_3^- < Cl^- < NO_2^- < HSO_3^- < CN^- < Br^- < NO_3^- < HSO_4^- < I^- < SO_4^{2-}$

Acetate <Formate <Tartrate <Citrate

For strong basic anion exchanger of Type II occurs a slight shift in accordance with the following selectivity series:

$F^- < OH^- < \text{Acetate} < IO_3^- < H_2PO_4^- < HCO_3^- < OH^- < BrO_3^- < Cl^- < CN^- = NO_2^- < Br^- = CF_3COO^- < CCl_3COO^- < SCN^- < HSO_4^- < I^- < ClO_4^-$

Specifications of strong basic anion exchangers

pH range	0-14	
Regenerant	NaCl	NaOH
Concentration in water [%]	8-10	2-4

Ordering information – Strong basic anion exchangers

Product	Ordering No.	Form	Size	Exchange capacity [mval/mL]
Ionexchanger III	1.04767.0500	OH ⁻	500 g	>0.9
Ionexchanger III	1.04767.5000	OH ⁻	5 kg	>0.9
Amberlite® IRA-402	1.12463.0500	Cl ⁻	500 mL	>0.9
Amberlite® IRA-410	1.15262.0500	Cl ⁻	500 mL	>1.35
Amberjet® 4200 CL	1.05245.0500	Cl ⁻	500 mL	>1.3
Dowex® 1-X8	1.05242.0250	Cl ⁻	250 mL	>1.2

Weak basic anion exchangers

The binding strength order of weak basic anion exchangers is as following:

$F^- < Cl^- < Br^- < I^- < \text{Acetate} < MoO_4^{2-} < PO_4^{3-} < AsO_4^{3-} < NO_3^- < \text{Tartrate} < \text{Citrate} < CrO_4^{2-} < SO_4^{2-} < OH^-$

Ordering information – Weak acid cation exchangers

Product	Ordering No.	Form	Size	Exchange capacity [mval/mL]
Amberlite® IRA-67	1.15959.0500	OH ⁻	500 g	>1.5
Ion exchanger II	1.04768.0500	OH ⁻	500 mL	>0.6
Ion exchanger II	1.04768.5000	OH ⁻	5 L	>0.6